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Sérgio Andrade Carvalho

OF PAIN AND SUFFERING
EXPLORING THE ROLE OF PSYCHOLOGICAL PROCESSES IN CHRONIC PAIN, AND DEVELOPMENT OF A COMPASSIONATE ACCEPTANCE PROGRAM FOR PAIN MANAGEMENT (COMP.ACT)

Tese de doutoramento em Psicologia, especialidade em Psicologia Clínica, orientada pela Professora Doutora Paula Cristina Castilho Freitas, pelo Professor Doutor José Augusto da Veiga Pinto de Gouveia, e pelo Professor Doutor David Thomas Gillanders, e apresentada à Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra.

Agosto de 2020

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Title	Of Pain and Suffering: exploring the role of psychological processes in chronic pain, and development of a Compassionate Acceptance Program for pain management (COMP.ACT)
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Para a minha mãe.
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ABSTRACT

Introduction: Chronic pain is a debilitating medical condition with a detrimental impact on patients′ quality of life, functioning and mental health. In addition to pain itself, psychopathological symptoms usually co-occur and contribute to the nefariousness and pervasiveness of chronic pain. The study of psychological factors contributing to chronic pain has been fueled by scientific advances in clinical psychology, particularly in cognitive and behavioral approaches. Mindfulness, acceptance and compassion-based approaches have recently helped shift the focus of therapy from the elimination of symptoms and maladaptive cognitions, to the overall cultivation of an open, aware and self-compassionate stance to personal suffering, while fostering commitment to valued action. However, although these approaches seem to be valuable tools to chronic pain management, their core processes present conceptual overlap (e.g., by sharing core elements, such as mindful awareness and acceptance), thus raising concerns regarding their unique contribution to chronic pain. The current thesis aimed to study the uniqueness and interconnection between mindfulness-, acceptance- and compassion-related processes in chronic pain, through four main routes: 1) to develop and/or validate adequate assessment tools; 2) to explore patterns of associations between psychological processes, pain outputs and depressive symptoms; 3) to examine risk and protective psychological factors associated with the development of depressive symptoms; 4) to develop and pilot test the efficacy of a Compassionate Acceptance and Committment Therapy (COMP.ACT), and examine the added value of (self)compassion in ACT for chronic pain.

Methods: The present thesis comprises 10 empirical studies, including 2 psychometric studies, 5 cross-sectional studies, 2 time-lagged studies, and 1 clinical study. These were performed in convenience samples of adult women with musculoskeletal chronic pain, as well as of adult men and women from the general population. Recruitment was conducted online and in a chronic pain healthcare unit. Data was collected through self-report measures.

Results: The psychometric studies showed that i) the Valuing Questionnaire (VQ) presents good psychometric properties and its original factor structure was confirmed; ii) the Perceived Validation and Criticism in Pain Questionnaire (PVCPQ) is a psychometrically valid two-factor measure of perceived validation and criticism by signficant others when experiencing pain, and PVCPQ contributes to functional impairment beyond pain, background variables and other related psychological processes. Cross-sectional studies showed that iii) self-compassion is more strongly (negatively) associated with depressive symptoms than mindful awareness, and activity engagement mediates this relationship; iv) self-compassion buffers the mediator effect of cognitive fusion between pain intensity and depression; v) rumination and obstructions to valued living mediate the negative association between mindful awareness and depression; vi) self-compassion relates to social safeness through less fears of receiving compassion from others; vii) uncompassionate self-responding is a strong contributor to depression. Time-lagged studies showed that viii) cognitive fusion is a predictor of the trajectory of depression beyond pain intensity and impairment, and ix) self-compassion prospectively predicts depression. The clinical study showed that x) COMP.ACT did not significantly differ from ACT-only, both were acceptable, and COMP.ACT seemed to result in more valued living.

Conclusions: Overall, these studies suggest that, more than pain intensity and functional impairment, psychological processes contribute significantly to depression in chronic pain, which suggests the importance of targeting psychological processes, and not only focus on reducing pain in pain management programs. Self-compassion seems to be an especially protective factor against depression in chronic pain, which suggests the usefulness of integrating compassion-inducing practices in chronic pain management programs.

Keywords: chronic pain; functioning; depression; psychosocial; mindfulness; (self)compassion; acceptance and commitment therapy.

RESUMO

Introdução: A dor crónica é um quadro clínico debilitante com impacto negativo na qualidade de vida, funcionamento e saúde mental de quem dela sofre. Para além da dor *per se*, habitualmente coocorrem sintomas psicopatológicos que contribuem para o caráter nefasto e pervasivo da dor crónica. O estudo dos fatores psicológicos que contribuem para a etiologia da dor crónica tem sido impactado pelos avanços científicos da psicologia clínica, particularmente das abordagens comportamentais e cognitivas. Recentemente, as abordagens baseadas no mindfulness, na aceitação e na compaixão têm contribuído para uma mudança no foco terapêutico, passando este a estar menos direcionado à eliminação de sintomas e cognições maladaptativas, e mais ao desenvolvimento de uma atitude e postura de abertura, consciência e compaixão em relação ao próprio sofrimento, concomitantemente promovendo o compromisso com a ação valorizada. Contudo, apesar destas abordagens serem ferramentas úteis na gestão da dor crónica, os seus processos centrais apresentam sobreposição conceptual (e.g., partilham elementos como a atenção *mindful* e a aceitação), levantando, assim, questões quanto ao seu contributo específico para a dor crónica. A presente tese teve como objetivo estudar o contributo singular, assim como a interligação entre processos relacionados com o mindfulness, a aceitação e a compaixão na dor crónica, através de quatro vias principais: 1) desenvolver e/ou validar instrumentos de avaliação adequados de construtos em análise; 2) explorar padrões de associação entre processos psicológicos, outputs de dor e sintomatologia depressiva; 3) examinar os fatores psicológicos de risco e proteção associados ao desenvolvimento de sintomas depressivos; 4) desenvolver e testar, de forma preliminar, a eficácia de um programa que integra Compaixão e Terapia da Aceitação e Compromisso (COMP.ACT), e estudar o valor incremental da (auto)compaixão na ACT para a dor crónica.

Método: A presente investigação integra 10 estudos empíricos, os quais incluem 2 estudos psicométricos, 5 estudos transversais, 2 estudos longitudinais, e 1 estudo clínico. Os estudos foram conduzidos em amostras por conveniência de mulheres adultas com dor crónica musculoesquelética, assim como de homens e mulheres adultos/as da população geral. O recrutamento foi realizado online e numa unidade de dor. Os dados foram recolhidos através de medidas de autorresposta.

Resultados: Os estudos psicométricos sugeriram que: i) o Questionário de Valores apresenta boas propriedades psicométricas e a sua estrutura fatorial de dois fatores foi confirmada; ii) o Questionário de Validação e Criticismo na Dor é válido do ponto de vista psicométrico, apresenta dois fatores (criticismo e validação por outros significativos), e contribui significativamente para a incapacidade funcional para além do contributo da intensidade da dor, de variáveis sociodemográficas e médicas, e de outros processos psicológicos. Os estudos transversais sugeriram que iii) a autocompaixão está mais fortemente associada (negativamente) com sintomas depressivos do que a consciência mindful, e a realização de atividades valorizadas medeia esta relação: iv) a autocompaixão amortiza o efeito mediador da fusão cognitiva na relação entre intensidade de dor e sintomas depressivos; v) a ruminação e os obstáculos a uma vida valorizada medeiam a associação negativa entre consciência mindful e depressão; vi) a autocompaixão relaciona-se com segurança afiliativa através de uma menor experiência de medo de receber compaixão pelos outros; vii) a autorresposta não compassiva (e.g., com autocriticismo) é um preditor robusto de sintomatologia depressiva. Os estudos longitudinais sugeriram que viii) a fusão cognitiva revela-se um preditor da trajetória da sintomatologia depressiva, para além do efeito da intensidade da dor e incapacidade funcional, e ix) a autocompaixão prediz prospectivamente a depressão. O estudo clínico mostrou que x) o COMP.ACT não difere significativamente da ACT, ambos avaliados como úteis, e o COMP.ACT parece ter resultado num incremento de ação valorizada.

Conclusões: Os estudos sugerem que, mais do que a intensidade da dor e a incapacidade funcional, os processos psicológicos contribuem significativamente para a sintomatologia depressiva na dor crónica, o que, por sua vez, sugere a importância dos programas de gestão da dor crónica terem como alvo, não só a diminuição da dor, mas também os processos psicológicos maladaptativos. A autocompaixão parece ser um fator especialmente protetor contra a depressão na dor crónica, o que sugere a pertinência de integrar práticas de cultivo de (auto)compaixão nos programas de gestão da dor crónica.

Palavras-chave: dor crónica; funcionamento; depressão; psicossocial; mindfulness; (auto)compaixão; terapia da aceitação e compromisso.

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PREFACE

Global international health organizations have growingly come to the realization that pain is a complex and pervasive medical problem. Worldwide campaigns and efforts have been conducted to promote pain relief. In 2004, a major milestone in the recognition of pain as a crucial target of healthcare ocurred when the World Health Organization (WHO) joined the International Association on the Study of Pain (IASP) and its european federation (EFIC) on the first Global Day Against Pain. Understandably and, in fact, ethically defensable, the call was (and, in some degree, still is to this day) to the development and implementation of more effective medical solutions to pain alliviation and/or elimination. This is a noble goal, but perhaps, if overly focused on pain elimination, rather dismissive of the complex nature of pain. Even when exclusively considering acute pain, the biomechanical model of physiological stimuli-response has been rebutted by decades, if not centuries, of both philosophical and scientific knowledge that seems to put at center stage of the pain phenomenon subjective mechanisms that go beyond mere pathophysiology. Needless to say that when pain evolves into a chronic condition, the disturbed physiological mechanisms (in any stage of pain processing, particularly in perception and modulation) are one of many elements fueling and maintaining chronic pain. The multidetermined nature of pain – with a diverse and complex aetiology resulting from an interplay of physiological, psychological and social factors – forewarns that an effective health response to chronic pain must integrate, in its conceptualization and management, a multi/interdisciplinary approach, including psychotherapy and/or psychological pain management.

Clinical psychology has changed its tenets, approaches and techniques, instigated by both historical contexts and scientific advances. It is not, we would argue, an oversimplification to state that behavior therapy – based on experimentation and its resulting paradigms – has instilled clinical psychology with its much needed scientific status, moving away from the rather anecdotally-guided, non-parcimonious and overall unfalsifiable psychoanalytical approach of the first half of the 20th century. The role of psychology in general, and clinical psychology in particular, in chronic pain was not immune to changes occuring within the field, and was indeed influenced by its scientific innovations. For example, operant learning and stritcly behavioral therapies usually conceptualized and focused on the observable aspects of pain, such as pain behaviors. When the so called cognitive revolution ocurred in clinical psychology – undeniably influenced by advances in social psychology, and specifically in attributional theory, as well as by the then newly developed computational sciences and their notion of *software*, resulting in the proposition of the mind as an information processing machine), the understanding of the psychological factors of chronic pain has made a considerable leap forward, including cognitive factors in chronic pain conceptualization and management (e.g., beliefs, appraisals and overall erroneous/biased interpretations as the core psychological events maintaining cycles of chronic pain symptoms). Similarly, a new revolution in cognitive-behavioral approaches has spilled over chronic pain understanding and management. A set of new psychological approaches - which borrowed ancient Eastern knowledge on philosophy of mind, later on corroborated by sophisticated methodologies of scientific fields (e.g., affective neuroscience) – has contributed to a new understanding of the role of cognitive and emotional factors in chronic pain, as well as to a shift in therapeutic goal, from symptom elimination to acceptance and overall valued living despite pain.

This is what the current thesis is about.

Based on previous research on the role of mindfulness, acceptance and compassion in chronic pain, the current thesis sought out to contribute to a better understanding of the uniqueness and interconnectedness of these processes in the development of psychopathological symptoms (particularly depressive symptoms). Through 10 empirical studies, we aimed to contribute with i) new measures of key psychological processes, ii) the examination of patterns of associations between pain, psychological factors and depressive symptoms and functional impairment, iii) understanding the role of key risk and protective psychological processes in developing depression, iv) to better understand the role of self-compassion in Acceptance and Commitment Therapy for chronic pain by developing and pilot testing, in a two-arm design, a new chronic pain management program of Compassionate Acceptance and Commitment Therapy (COMP.ACT). This thesis is devided into three major parts.

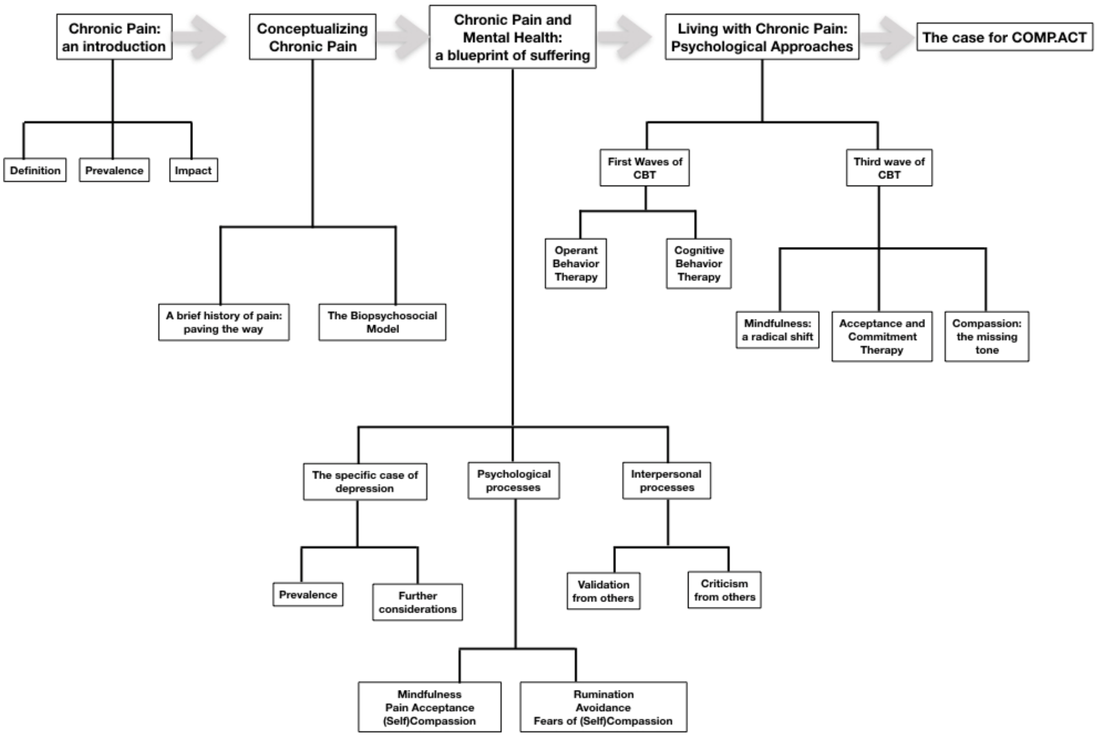
Part 1 | Chapter 1 | Theoretical Background. This sections aims to provide a contextualization of the target and problem at hand, as well as to serve as a description of the milieu in which the current work is based. This section begins with a rather straightforward characterization of chronic pain, in terms of its definition, prevalence and impact, in order to provide a clear notion of what will be the target population. This section is followed by a brief journey through the history of (chronic) pain conceptualization. It should be noted that, although the current thesis is a scientificallyfocused work, the decision to spend a few pages on the history of pain comes from our deep belief that good science is inextricably linked to philosophy and history of science. Although an in-depth philosophical and historical discussion here would be certainly misplaced, we decided to provide a very brief description of what could be considered milestones in the history of pain, always having in mind the end goal of the current thesis: the role of psychological processes. Thus, it will serve as a brief overview of the scientific journey of pain science, until we reached the current multidimensional biopsychosocial model of chronic pain. The following section focuses on the relationship between chronic pain and mental health, with a great focus on depressive symptoms, which will be the main target of the current work. Next, we will focus on the role of key psychological processes in chronic pain in the context of the so called third wave of cognitive-behavioral therapies. The title of this section (*Psychological processes: on the angels and demons of our nature*) evokes the well-known bestseller book by Steven Pinker ("The better angels of our nature", 2011) – which himself borrowed from the first inaugural address of the american president Abraham Lincoln -, and, in doing so, we attempt to provide a clear background to what this section is about: the protective role of the psychological processes in study (the angels), as well as the counterpart risk psychological processes at hand (the demons). After that, we will focus on the interpersonal dimension of chronic pain, particularly validation and criticism of pain by significant others. Although pain is a subjective inner experience, it potentially occurs in a relational context (not least as a context of support and pain alleviation), which raises key issues regarding the objectivity versus subjectivity of others′ response, and its impact on mental health. In this thesis, we are not particularly interested in the objective and social support element of interpersonal relationships, but rather on the subjective emotionally textured experience of being validated or criticized when experiencing pain. The next two sections focus on the psychological approaches to chronic pain management, and lays the foundations for the necessity of developing a Compassionate Acceptance and Commitment Therapy program for chronic pain.

Part 1 | Chapter 2 | Aims and Methodology. This chapter firstly focuses on the gaps and missing links in the literature on third wave processes and chronic pain. Then, it described the general and specific aims of the current thesis, and describe the general methodology behind the empirical studies. Finally, the chapter describes the process of developing the COMP.ACT program, discusses key decisions in doing so, and ends up with noteworthy considerations on the study of COMP.ACT.

Part 2 | Chapters 3 – 6 | Empirical studies. Chapters 3 is composed of psychometric studies on validation (the Valuing Questionnaire) (study I) for the portuguese population, and for chronic pain populations (this is the first study of the VQ in a sample of chronic pain), and development of a new measure (Perceived Validation and Criticism in Pain Questionnaire) (study II). In addition to studying the psychometric properties of these measures, the studies provide new information on the role of the measured constructs in psychopathological symptoms and/or functional impairment, beyond pain outputs and related psychological processes. Chapter 4 includes 5 empirical studies on the relationship between key psychological processes (in the context of third wave therapies), namely the role of self-compassion as a moderator of the mediation of cognitive fusion in the relationship between pain intensity and depressive symptoms (study III); the relationship between pain acceptance, mindfulness and self-compassion, particularly which elements of acceptance mediate the relationship between minfulness and self-compassion, and depressive symptoms (study IV); the role of rumination and its relationship with valued living is explored, particularly whether these processes are potential mechanisms through which mindfulness relates to less depressive symptoms (study V); given that compassion is a rather complex process, which may be hindered by threat-focused processes, we also examined the role of fears of compassion in the relationship between self-compassion and safeness (study VI); Additionally, given the current hot topic of discussion regarding the factors of the self-compassion scale (SCS), we tested which components (compassionate or uncompassionate self-responding) more strongly relates to depression, while controlling for the role of other related processes and pain outputs (study VII). Chapter 5 is composed of two studies with time-lagged designs, where the role of two key processes in depression development are explored: the role of cognitive fusion (which are studied here since it is theoretically hypothesized to underlie different cognitive and behavioral processes) (study VIII), and self-compassion (which is understudied in chronic pain, but theoretically hypothesized to be a relevant process in pain) (study IX). Chapter 6 includes the clinical study of this thesis, where we aimed to test the added value of including explicit self-compassionate exercises in an ACT program for chronic pain (study X).

Part 3 | Synthesis and Conclusions | Chapter 7 | General Discussion. This section provides an overall summary of results, as well as a discussion on how it moves forward the knowledge of their role in chronic pain. It also discusses key limitations of the empirical studies, as well as their meaning in terms of results interpretation, and provides suggestions for further studies on the research questions that were not able to be definitively answered due to methodological limitations. Also, this section addresses clinical implications, particularly a reflection on how these results may inform policy making in terms of chronic pain management. This section ends up with overall conclusion and take-home messages that result from the studies, as well as provides an integrated model, which is a visual representation of the key conclusions from the empirical studies.

PART I - INTRODUCTION



Chapter 1: Theoretical Background

1.1. Chronic Pain: an introduction

There is an overall theoretical assertion, if not even intuitive awareness, that *pain* is an inevitable part of the human experience. The ancient playwright Aeschylus (circa 525 BCE – circa 455 BCE) stated that, except for the gods, nobody could live without experiencing pain (Ésquilo, 2010). Indeed, there seems to be a general consensus that the inescapable nature of pain is rooted in its important evolutionary function (de C Williams, 2016), shaping mechanisms underlying the avoidance of threatening events of potential physical damage (Walters & de C Williams, 2019). Charles Darwin himself acknowledged the evolutionary function of pain when he stated that "pain or suffering of any kind, if long continued, causes depression and lessens the power of action; yet it is well adapted to make a creature guard itself against any great or sudden evil" (Darwin, 1887, p. 51-52). This statement perfectly encapsulates the difference between acute and chronic pain, as well as the social and individual challenges of living with chronic pain. This section will focus on the operative definition, prevalence, and social and individual impact of chronic pain.

1.1.1 Definition

Before diving into the definition of chronic pain, one should take a moment to consider how pain itself is operationalized. The International Association for the Study of Pain (IASP), for the last decades, have defined pain as a sensory and emotional experience resulting from an actual or potential damage, or described in terms of such damage (Merksey et al., 1979). A new definition has been recently proposed by the IASP, in which pain is conceptualized as an *aversive sensory* or *emotional* experience normally occurring as a *result from*, or *resembling*, *actual* or *potential* tissue injury (IASP, 2019). The definition of pain, both the prior and newer versions, highlight several elements that are key to the study of pain: 1) the subjective nature of pain; 2) the multi-determined nature of pain (biological and psychosocial), from which derives the claim that pain and nociception[1] are different phenomena; 3) the potentially protective function of pain, but also its associated suffering; 4) the description of pain experience as a subjective first-person account, which is an important aspect of pain interpersonal communication (both with physicians, as well as with significant others) (for an ongoing discussion on the definition of pain, see Cohen, Quintner, & van Rysewyk, 2018; Osborn, 2018; Treede, 2018).

Chronic pain has been characterized as constant or sporadic pain that lasts for 3 to 6 months, depending on the aetiology of chronic pain (Merksey & Bogduk, 1994). More recently, it has been proposed that chronic pain occurs when pain lasts for at least 3 months, and it is conceptually divided into 1) *primary chronic pain* (i.e., pain in one or more anatomical regions, associated to significant emotional distress, functional disability; includes syndromes that are themselves diagnostic entities not otherwise best explained by other health conditions: chronic widespread pain, complex regional pain syndromes, chronic primary headache and orofacial pain, chronic primary visceral pain, and chronic primary musculoskeletal pain, such as chronic low back pain); 2) *secondary chronic pain* (i.e., chronic pain linked to other health conditions in which pain was one of the symptoms, after which pain persisted, thus being regarded as a diagnostic in its own; includes chronic cancer-related pain, chronic secondary musculoskeletal pain,

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[1] Nociception is the process through which neurons (specifically primary sensory neurons) detect stimuli that produce pain (e.g., Julius & Basbaum, 2001)

chronic neuropathic pain, chronic secondary headache or orofacial pain, chronic secondary visceral pain) (Treede et al., 2019).

1.1.2. Prevalence

Chronic pain is a rather common medical condition that affects a significant proportion of the population worldwide (e.g., Goldberg & McGee, 2011). Epidemiological studies suggest that it affects an estimated 20% of the population (Breivik, Collett, Ventafridda, Cohen, & Gallacher, 2006), and is responsible for approximately 15-20% visits to physicians (e.g., Mäntyselkä et al., 2001), which can be even higher for high levels of disability (e.g., Blyth, March, Brnabic, & Cousins, 2004). Chronic pain accounts for 10-16% of visits to emergency health services (e.g., Todd, Cowan, Kelly, & Homel, 2010), of which approximately 66% are due to inability to cope with pain symptoms (Poulin et al., 2016). In Portugal, according to an epidemiological study with data collected from 2007-2008, chronic pain is reported to affect 36.7% of the population (Azevedo, Costa-Pereira, Mendonça, Dias, & Castro-Lopes, 2012).

It should be noted that when considering the prevalence of chronic pain, one should be aware of the complex multifactorial nature of chronic pain, thus applying a critical interpretation of studies according to methodology and context-specificities of targeted samples. For example, the majority of studies collect data according to medical healthcare records, which adds a potential level of bias for not considering differences in systems of healthcare provision nor socioeconomic variables in accessing healthcare. Indeed, even when conducting studies through general population surveys, the prevalence seems to be correlated with geographically-related variables: while in so called developed countries chronic pain has been reported to affect 19-30% of the population (Breivik et al., 2006; Johannes, Le, Zhou, Johnston, & Dworkin, 2010; Schopflocher, Taenzer, &

Jovey, 2011), it seems to affect approximately 18% of developing countries (see Sá et al, 2019 for a meta-analytic review).

Another aspect of chronic pain prevalence that is perhaps relevant to consider here in the context of this work is the evidence that chronic pain is significantly more frequent in women than in men (e.g., Greenspan, Craft, & LeResche, 2007), which seems to be the case in different countries (Gobina et al., 2019), including in Portugal (Azevedo et al., 2012). Even when no statistical differences are found in terms of prevalence, women seem to report more multiple locations of pain than men (e.g., Andersson, Ejlertsson, Leden, & Rosenberg, 1993). An in-depth examination of biological and psychosocial variables underlying sex/gender differences in chronic pain prevalence is beyond the scope of the current dissertation (e.g., see LeResche, 1999). However, it seems that there is an overall consensus that women are more likely to use (and/or report) maladaptive coping strategies (El-Shormilisy, Strong, & Meredith, 2015) and present higher pain sensitivity (Fillingim, King, Ribeiro-Dasilva, Rahim-Williams, & Riley, 2009). Nevertheless, although biological variables (e.g., oestrogens) seem to be involved in pain modulation (e.g., Amandusson & Blomqvist, 2013; Craft, 2007), there are inconclusive results on sex/gender differences at a genetic level (e.g., Packiasabapathy & Sadhasivam, 2018).

Also, when considering different types of chronic pain, musculoskeletal chronic pain seems to be especially prevalent. For example, studies report that up to 6.6% of the general population presents fibromyalgia (e.g., Marques, Espírito Santo, Berssaneti, Matsutani, & Yuan, 2017) and studies suggest an increase of chronic low-back pain in western countries (e.g., 10.2% in 2006; Freburger et al., 2009). Although different studies present different prevalence rates according to case definitions, time points studied, and targeted populations, it is widely accepted that musculoskeletal chronic pain is particularly prevalent in the general population, with chronic low back pain (13.5-47%) and chronic widespread pain (11.4-24%) being the most prevalent (Cimmino, Ferrone, & Cutolo, 2011; Crombie, Croft, Linton, LeResche, & Von Korf, 1999).

1.1.3. Impact

Chronic pain is an exceptionally impactful medical condition that significantly influences a person´s functioning, quality of life, social environment, as well as it entails socio-economic repercussions at the level of healthcare investment and sustainability (see Dueñas, Ojeda, Salazar, Mico, & Failde, 2016).

In a well-known study of chronic pain across Europe (and Israel), most individuals with chronic pain reported considerable limitations (e.g., inability to maintain work activities, attending social activities, maintaining an independent lifestyle) (Breivik et al., 2006). Another study conducted in European countries over a period of 12 months found similar results, with chronic pain reported to greatly impact individuals′ daily activities (O´Brien & Breivik, 2012). Indeed, chronic pain seems to negatively impact on a person´s quality of life (e.g., Hadi, McHugh, & Closs, 2019; Skevington, 1998), regardless of age group and type of pain (see Katz, 2002), and is associated with low well-being (e.g., Gureje, Von Korff, Simon, & Gater, 1998; Penny, Purves, Smith, Chambers, & Smith, 1999) and low satisfaction with life (e.g., McNamee & Mendolia, 2014; Silvemark, Källmén, Portala, & Molander, 2008).

A particularly relevant aspect regarding chronic pain impact is its intricate and systemic consequences not only at a personal level, but also at a socio-economic level. Specifically, the negative impact of chronic pain on work capacity and performance (e.g., Blyth, March, Nicholas, & Cousins, 2003) does not only negatively impact on a person and family´s income (e.g., Fliesser, Huberts, & Wippert, 2017; Kemler & Furnée, 2002;

Poleshuck & Green, 2008), but also yields high costs to healthcare systems and society at large (e.g., Engel, Von Korff, & Katon, 1996; Leadley, Armstrong, Lee, Allen, & Kleijnen, 2012; Phillips, 2009). Indeed, the health-related socio-economic impact of chronic pain is huge not only due to direct costs with pain management-related healthcare provision (e.g., Loeser, 1999), but also due to productivity loss, absenteeism and early retirement (e.g., Breivik, Eisenberg, & O'Brien, 2013; Kronborg, Handberg, & Axelsen, 2009). In Portugal, it is estimated that chronic pain direct and indirect costs make up approximately 2.71% of the Portugal annual Gross Domestic Product (Azevedo, Costa-Pereira, Mendonça, Dias & Castro-Lopes, 2016; Gouveia & Augusto, 2011). This calls for the necessity of developing evidence-based cost-effective pain management interventions that not only positively impacts on health-related clinical outcomes in chronic pain, but also on the overall economic capacity and sustainability of healthcare services. A thorough understanding of the aetiology and mechanisms underlying chronic pain must inform clinical application and policy making decisions. The next section will briefly focus on the historical path that gave rise to the current complex, integrative, multi-determined conceptualization of chronic pain.

1.2. Conceptualizing chronic pain

The road to the current understanding of the complex, subjective and multi-determined aetiology of chronic pain has been a long one. To better understand the current approach to chronic pain, one should benefit from walking through the evolution of pain theory. An in-depth epistemological and culturally-nuanced discussion of the history of pain is beyond the scope of the current work. Nonetheless, this section aims to provide a brief overview of what could be considered central milestones in the history of pain theory, thus laying down the pieces of science history that moved us towards the current conceptualization of chronic pain.

1.2.1. A brief history of pain: paving the way

Before the advent of natural philosophy, or what is now referred to as modern science, a great deal of understanding of natural phenomena was more frequently than not based on an intersection of rudimentary science and superstition, mythology and folk narratives (Hawking, 2002; Jones & Taub, 2018; Weinberg, 2015; Wootton, 2015). Although this could be interpreted as a rather anachronistic and unjustly unflattering brush of the noble history of science, when it comes to pain a brief look into etymology provides a useful depiction of what would latter on be instilled in our collective imagination around the concept of pain. For example, when one considers the English word "*pain*", it seems to derive from *Poena*, the roman spirit of punishment (e.g. Perl, 2007). Interestingly enough, the theme of punishment seems to be present when one considers Greek mythology as well, where *Poine*, the goddess of revenge, was sent to punish those who angered the gods (Fehmi & Robbins, 2010). The old French word *Peyn*, from which also derived the middle English word *Peine*, also alluded to a notion of torture and punishment (Khan, Raza, & Khan, 2015). These brief etymological considerations on pain as linguistically correlated with notions of punishment and torture provides an interesting, although certainly unscientific, historical framework through which to consider key subjective psychologically relevant pain-related experiences. Although our understanding of pain has greatly moved towards a science-based conceptualization, thus rejecting pain as an external punishing torturous enemy, these ideas seem to populate cultural representations of pain as unfair (e.g., McParland & Eccleston, 2013), something to avoid (e.g., Vlaeyen, Crombez, & Linton, 2016), related to the unwillingness to accept pain-related internal experiences as part of the ongoing human experience (e.g., Zettle, Hocker, Mick, Scofield, Petersen, Song, & Sudarijanto, 2005), and the notion of pain as something to put an end to (as noted by overmedicalisation) (e.g., Gordon, Rice, Allcock, Bell, Dunbar, Gilbert, & Wallace, 2017), that runs through the biomechanical and much of biomedical approaches to pain and pain management. The road was indeed long until an integrated approach came to better conceptualize the complexity of chronic pain.

Claudius Galenus (130 - circa 200 CE) followed the ancient Greek humorous theory, and asserted that pain resulted from the influx of toxic black bile or acrid yellow bile (Finger, 2001). He demonstrated that pain-related injuries resulted from damages in the spinal chord, but nonetheless posited that the heart was the core organ involved in pain (Ochs, 2004). A few centuries later, Ibn Sina (980 - 1037), a Persian polymath of the so called Islamic Golden Age, known in the west in its Latinised name Avicenna, was one of the first philosophers and physicians to put forward the proposition that pain is a sensation independent from touch and temperature (Aciduman, Arda, Özaktürk, & Telatar, 2009). Avicenna is here considered a milestone in the history of pain theory because, although he followed Galenus′ proposition that pain resulted from "interruptions in continuity" (in a nutshell, interruptions in the nature of organs – i.e., what we could now consider injuries/trauma), he argues that pain (*Waja'* or *Alam*) could occur without these interruptions (i.e., without a trauma/injury) (Tashani & Johnson, 2010). Although Avicenna reaches a perhaps rather drastic conclusion that pain not resulting from a traumatic stimulus should not be treated by medicine (given that it "does not exist" as a physical phenomenon), it is certainly one of the first pre-modern science conceptualizations of pain that goes beyond the mechanistic injury-focused approach of pain.

Another milestone in pain theory was established by René Descartes (1596 - 1650), who conceptualized pain as a result from fast moving particles of fire that went through nerve filaments until they reach the brain. This is perhaps one of the first operationalization of pain in which the brain seemed to be a central piece of the puzzle of pain. However – and, in a way, strangely enough when considering Descartes′ dualistic approach (i.e., mind-body dualism) -, his conceptualization did not leave much room for the integration of psychological factors in the experience of pain (Rey, Wallace, Cadden, Cadden, & Brieger, 1995). Although a more nuanced philosophical discussion on Descartes´ mechanistic stance to human behaviour is beyond the scope of the current dissertation (Duncan, 2000), it seems reasonable to state that his approach to pain was a dualistic one, in which the body was separate from the mind. The science of pain had to wait for several centuries until a solid and fairly nuanced approach to pain was formulated, in which the brain and its derived psychological processes did not only operate solely as an information processing machine, but rather fully contributing to the pain experience itself.

The 19th century gave rise to the intensification of experimental science, and several modern scientific theories of pain have been proposed, none of which providing a sufficiently all-encompassing approach to the complexity of pain. The Bell-Magendie Law resulted from the experiments of Charles Bell (1774-1842) and François Magendie (1783–1855) on the functions of dorsal and ventral roots of the spinal nerves, as well as their back-and-forth dispute for authorship. They discovered that the anterior branches of spinal nerve roots contain motor fibers, while the posterior roots contain sensory fibers (J⊘rgensen, 2003). A series of experiments, as well as the Johannes P. Müller′s (1801–1858) notion of sensory nerve specificity, have consolidated the physiological and biomechanical approach to pain, ending up giving rise to the concept of *nociception* put forward in 1906 by the Nobel laureate Charles Scott Sherrington (1857–1952) (Burke, 2007). Meanwhile, alternatively to the *specificity theory* that nociception gave rise, several authors (e.g., neurologist W. Erb) proposed an intensity theory, in which pain resulted not from specific pain stimuli (*noxious*), but rather from the intensity of a stimulus. According to this, a *pattern theory* was put forward by John Paul Nafe (1888-1970) based on the experiments on electrophysiology of sensory afferent fibers by the co-recipient Nobel laureates Joseph Erlanger (1874–1965) and Herbert Spencer Gasser (1888– 1963), and proposed that pain results from intense stimulation of nonspecific receptors (Sinclair, 1955).

The apparent irreconcilable propositions of specificity theory and pattern theory were accommodated in an input-control system theory that gave rise to perhaps the most influential physiological theory of pain: *The Gate-Control Theory* (Melzack & Wall, 1965). This general theory of pain modulation posits that nociceptive information goes through a set of stages until reaching the brain through the spinal chord. The dynamic regulation of pain processes encompasses three stages: i) the substantia gelatinosa modulates the afferent patterns, functioning as a gate-control system; ii) the afferent patterns partly function as central control triggers, which activates selective brain processes that influence the modulating action of the gate-control system; iii) neural mechanisms are activated by T cells, comprising systems of action related to responses and perception. The individual differences in responses to pain result from the degree of “openness” or “closeness” of the gate. The gate-control theory has been progressively revised throughout the years, not necessarily being challenged in its heuristic comprehension of pain, but rather incorporating new advances in the science of neurophysiology of nociception (Sufka & Price, 2002) and neuroplasticity (Melzack, Coderre, Katz, & Vaccarino, 2001). Although the gate-control theory goes beyond the exclusive biomechanical approach to pain, and is perhaps the first science-based model that includes psychological aspects (e.g., perception) in the experience of pain, it is still a rather dualistic conceptualization, overly focused on stimuli-response physiology, without considering other psychological and social variables in the aetiology of chronic pain. Further developments of the gate-control theory have advanced the *Neuromatrix Theory*, which proposes that pain is a multifaceted experience associated to a neurosignature within a larger brain network (the body-self neuromatrix), and integrates cognitive-evaluative, sensory-discriminative and motivational-affective components (Melzack, 2005). Output patterns of the neurosignature include pain perception, behavioural patterns of action, and homeostatic systems of stress regulation (e.g., cortisol and cytokine levels) (Melzack & Katz, 2006). A crucial aspect of the neuromatrix is the claim that pain results from these outputs of widely distributed neural networks instead of it being a direct consequence of injury, tissue damage, inflammation and other pathophysiology (Melzack, 2001). The gate-control theory and its updates have laid the building blocks that made possible the development of an integrated model capable of encompassing the multifactorial nature of chronic pain: *the biopsychosocial model* of chronic pain.

1.2.2. Towards a modern conceptualization of pain: The Biopsychosocial Model

Biomedical approaches to pain have been accused of not providing a sufficiently complex model for chronic pain due to their dualistic (mind and body as non-overlapping and non-communicable entities), reductionist (assumes all chronic pain derives from fully physical pathologies) and exclusionary (do not consider non-sensory factors, such as social, psychological and behavioural, as relevant mechanisms contributing to chronic pain) stance to pain conceptualization (Engel, 1977; Turk & Flor, 1999).

The biopsychosocial model overcomes this limited conceptualization of pain by incorporating pre-dispositional and current biological, psychological and social factors in the comprehension of pain, especially chronic pain (Bevers, Watts, Kishino, & Gatchel, 2016; Turk & Monarch, 2002). It proposes that chronic pain results from a complex interplay between a biological substrate (e.g., some form of a physical change in muscle, joint or nerves that produce nociceptive input in the brain), psychological phenomena (e.g., perceptual interpretation of the stimuli, attributional appraisals, beliefs, which will potentially guide ineffective responsive behaviours) and social-contextual factors (e.g., interpersonal variables, such as responses from significant others to pain events) (Engel, 1977; Loeser, 1982; Turk & Okifugi, 2002).

A crucial aspect of the biopsychosocial approach to chronic pain is that it shifts the attention from a *disease*-focused to an *illness*-focused clinical approach, i.e., from a strict focus on pathophysiology and mechanistic physical symptom elimination, to a comprehensive integrative focus on adaptation to illness, psychological and social factors that contribute to illness behaviour, and overall functioning (Asmundson & Wright, 2004). When looking into the psychological factors contributing to the maintenance and/or exacerbation of chronic pain, psychopathological symptoms (e.g., anxiety, depression) and ineffective behaviours (e.g., catastrophizing-related and fear-focused behaviour) seem to be of paramount importance (see Gatchel, Peng, Peters, Fuchs, & Turk, 2007). Indeed, these psychological factors seem to be a particularly relevant aspect of chronic pain by potentiating a vicious circle of disability and suffering (Crombez, Eccleston, Van Damme, Vlaeyen, & Karoly, 2012). The *Fear-Avoidance Model* is perhaps the most well-studied biopsychosocial model (Vlaeyen, Kole-Snijders, Boeren, & van Eek, 1995; Leeuw, Goossens, Linton, Crombez, Boersma, & Vlaeyen, 2007), and it provides a useful lens through which to consider the complex trajectories from acute to chronic pain. It postulates that chronicity occurs when a person erroneously interprets a pain event as threatening and catastrophic (e.g., a sign of a serious injury or pathology) (e.g., Linton, Buer, Vlaeyen, & Hellsing, 2000), resulting in a state of hypervigilance (e.g., Crombez, Van Damme, & Eccleston, 2005) that leads to avoidant behaviours due to fear of overall movement (e.g., Boersma & Linton, 2005), which in turn leads to more disability, negative affect and overall suffering (see Leeuw et al., 2007; Wertli, Rasmussen-Barr, Weiser, Bachmann, & Brunner, 2014). Although the fear-avoidance model has been vastly corroborated in robustly designed experiments (e.g., Trost, France, & Thomas, 2011), prospective studies (e.g., Wideman, Adams, & Sullivan, 2009) and clinical designs (e.g., Boersma, Linton, Overmeer, Jansson, Vlaeyen, & de Jong, 2004), this is an open model that allows for reconceptualization and integration of new developments in psychological science. For example, there seems to be room for an in depth reconsideration of the psychopathologically-oriented notion of both "irrational" beliefs about pain - which seem to be fairly common and culturally endorsed by the general population (e.g., Houben, Leeuw, Vlaeyen, Goubert, & Picavet, 2005) – and "fear-avoidance" – it does not entail the role of underlying motivation guiding a decision to persevere or avoid a behaviour (for example, a person might usually avoid running due to pain, but decide to play and run with their child in order to develop parent-child cherished memories, despite being fearful of movement and catastrophising) (Crombez et al, 2012). This calls for a broader discussion on the usefulness of incorporating elements of models that focus on the underlying function of behaviours rather than assuming *a priori* that behaviours in chronic pain are exclusively motivated by pain-related fear and avoidance. Indeed, several adaptations of the fear-avoidance model have been proposed, such as the inclusion of explicit elements of attention-regulation (e.g., mindfulness) (e.g., Schütze, Rees, Preece, & Schütz, 2010), and of acceptance and values-based processes as counteracting factors of fear and avoidance of emotions in chronic pain (e.g., McCracken & Keogh, 2009). New developments in chronic pain management, integrating mindfulness, acceptance and values-based action as new stances to the fear-avoidance model are a central piece of the current work, and will be thoroughly examined later on in this dissertation (see 1.4.2 *A new wave of hope*).

A comprehensive and integrative approach to chronic pain may benefit from not only considering pain-related phenomena (e.g., nociception, pain catastrophizing, fear of movement/(re)injury, pain avoidance), but also from integrating other general psychosocial processes that, although not necessarily related to pain, contribute to chronic pain suffering as a whole. Psychopathological symptoms and their complex role in chronic pain maintenance are of extraordinary interest when studying chronic pain aetiology. There seem to be theoretical suggestions – even outside the field of psychogenic approaches - that premorbid or pre-existing history of psychopathological symptoms play a role in the transition from acute to chronic pain (e.g. Casey, Greenberg, Nicassio, Harpin, & Hubbard, 2008; Gatchel, 1996). The following section will focus on the relationship between chronic pain and mental health.

1.3. Chronic pain and mental health: a blueprint of suffering

The comorbidity of mental and physical health problems in chronic illness is well documented (e.g., Turner & Kelly, 2000; van de Pavert, Sunderland, Luijten, Slade, & Teesson, 2017; Wells, Golding, & Burnam, 1988), and patients with more physical symptomatology also present more psychopathological symptoms (e.g., Kroenke, Spitzer, & Williams, 1994), including in chronic pain (e.g., Gureje, Simon & Von Korff, 2001). One meta-analysis involving 174 surveys across 63 countries (from 1980 to 2013) estimated a 29.2% lifetime prevalence of mental disorders (particularly anxious and mood-related) in individuals with chronic pain (Steele et al., 2014). Another seminal study found that individuals with chronic pain were four times more likely to experience psychopathological symptoms than those without chronic pain (Gureje et al., 1998). Indeed, and in accordance with the biopsychosocial model of chronic pain, the relationship between psychopathological symptoms and chronic pain aetiology is a complex one, with pre-morbid or pre-existing symptomatology and/or psychological processes contributing to the transition from acute to chronic pain (Gatchel, & Dersh, 2002; Gatchel, Polatin, & Kinney, 1995; Gatchel, 2004). A complex relationship between psychopathological symptoms/processes and pain seems to operate in producing a clinical condition of chronic pain (Weisberg, Keefe, Gatchel, & Turk, 1999; Katz, Rosenbloom, & Fashler, 2015). It should be stressed out that asserting this complex relationship between psychopathology and chronic pain is neither a vouching of psychogenic approaches on one hand, nor a mere acknowledgement of psychopathology as a result from the impact of chronic pain on the other hand, but rather an empirically-based ascertainment of the different levels of analysis when considering both the complex circuitry of pathophysiology, as well as the role of psychological and social factors.

1.3.1. Psychopathological symptoms: the specific case of depression

Although a vast array of psychopathological symptoms has been associated with chronic pain, depression has undeniably received much of the attention of empirical research (Dersh, Polatin, & Gatchel, 2002; Gureje, 2007). This is particularly the case for musculoskeletal chronic pain, especially clinical conditions without a clear pathophysiology, where depression does not seem to modulate sensory-discriminative areas of the brain associated to pain processing, but rather correlate with the neural activation of brain areas that process the motivational-affective aspects of pain (Giesecke, Gracely, Williams, Geisser, Petzke, & Clauw, 2005). Indeed, depression is an additional factor impacting disability (e.g., Arnow et al., 2006; Wilson, Eriksson, Joyce, Mikail, &

Emery 2002) and quality of life in chronic pain (e.g., Elliott, Renier, & Palcher, 2003; Gormsen, Rosenberg, Bach, & Jensen, 2010), and contributes to a worse prognosis of chronic pain (e.g., Pinheiro et al., 2016; Von Korff & Dunn, 2008; Von Korff & Miglioretti, 2005). This suggests the importance of focusing research on the role of depressive symptoms in chronic pain, particularly of conducting detailed examinations of the mechanisms through which depressive symptoms relate to pain disability.

1.3.1.1. Prevalence of depressive symptoms

The prevalence of depression and/or depressive symptoms in chronic pain is estimated to range from 0.8 to 21% (see Velly & Mohit, 2018). When it comes to major depression, several studies suggest a prevalence rate exceeding 20% (e.g., Banks & Kerns, 1996; Fishbain, Cutler, Rosomoff, & Rosomoff, 1997), with some studies suggesting more than 30% (Lee, Choi, Nahm, Yoon, & Lee, 2018; Wilson et al., 2002). Indeed, depressive symptoms are common in chronic pain, with chronic pain patients being more likely to have depressive symptoms than those without chronic pain (e.g., Aggarwal, McBeth, Zakrzewska, Lunt, & Macfarlane, 2006; Raphael, Janal, Nayak, Schwartz, & Gallagher, 2006).

1.3.1.2. Further considerations on depressive symptoms

The causal relationship between depressive symptoms and chronic pain is an old discussion (e.g., Wörz 2003). Some follow-up studies suggest that chronic pain is a predictor of onset of new depressive symptoms (e.g., Tunks, Crook, & Weir, 2008), and that chronic pain predates major depression diagnosis (e.g., Ohayon & Schatzberg, 2010), suggesting that depression might result from the debilitating impact of chronic pain. However, other studies have found that depression longitudinally predicts both pain and pain disability, and not the other way around (e.g., Lerman, Rudich, Brill, Shalev, & Shahar, 2015), suggesting that chronic pain might result as consequence of depressive symptoms. Indeed, this was a controversial stance in the early 1980s, when chronic pain was thought by some as a variant of depressive or affective spectrum disorders (e.g., Blumer & Heilbronn, 1981; Hudson & Pope, 1989). An assumption of linear causality between depression and chronic pain is a rather outdated approach and unfitting to a complex health condition such as chronic pain. A reciprocal relationship seems to be an increasingly more accurate depiction of the aetiology of chronic pain (Kroenke, Wu, Bair, Krebs, Damush, & Tu, 2011). Indeed, neuroimaging evidence seems to suggest that individuals with chronic pain present a disturbed prefrontal brain activity and a dysfunction of emotion regulation during an experimental pain stimulation (e.g., Bär, Wagner, Koschke, Boettger, Boettger, Schlösser, & Sauer, 2007; Strigo, Simmons, Matthews, Arthur, & Paulus, 2008). This simultaneously suggest that depression is an important piece in maintaining and/or augmenting pain, but also that this relationship, as complex as it is, might be operated through key psychological processes akin and/or connected to emotion regulation.

1.3.2. Psychological processes: on the angels and demons of our nature

The recognition that chronic pain is a complex perceptual experience has laid the grounds for the exploration of the role of psychological variables in the aetiology of chronic pain. Even though for half a century the acknowledgment of psychological phenomena in chronic pain aetiology has grown (see Gamsa, 1999 for an influential work on this subject), the crucial role of psychological factors in chronic pain has been solidly attested for the last three decades (Turk & Okifuji, 2002). Not only emotional variables (e.g., anxiety, depression, stress, anger) are considered relevant in chronic pain conceptualization (e.g., Asmundson & Katz, 2009; Bruehl, Burns, Chung, Ward, & Johnson, 2002; McWilliams, Cox, & Enns, 2003; Scott, Trost, Bernier, & Sullivan, 2013), but the role of cognitive factors has also been increasingly recognized in research as contributing to chronic pain-related suffering (Turk & Monarch, 2018). Perhaps the two most well studied cognitive processes are negative cognitive appraisals and pain catastrophising.

Research has found prolific evidence that worse clinical outcomes (e.g., more impairment, less funcional capacity) are related to a pattern of interpreting pain as a source of threat, i.e., of a potential body damage (e.g., Jackson, Wang, & Fan, 2014; Ramírez-Maestre, Esteve, & López, 2008). Indeed, negative appraisals about pain are an important factor in fear-motivated pain avoidance behaviors (e.g., see Vlaeyen & Linton, 2000), it relates to the use of ineffective coping strategies (e.g., Dysvik, Natvig, Eikeland, & Lindstrøm, 2005) and non-resilience (e.g., Karoly & Ruehlman, 2006).

Pain catastrophising seems to result from threat-focused pain negative appraisals (e.g., Jones, Rollman, White, Hill, & Brooke, 2003), and is described as an exaggerated mindset related to the actual and/or anticipated pain experience and its consequences (Sullivan, Thorn, Haythornthwaite, Keefe, Martin, Bradley, & Lefebvre, 2001). Pain catastrophising is indeed one of the most studied cognitive factors involved in chronic pain (see Edwards, Cahalan, Mensing, Smith, & Haythornthwaite, 2011). Research shows that it predicts the degree of pain and disability, as well as mediates treatment efficacy (see Wertli, Burgstaller, Weiser, Steurer, Kofmehl, & Held, 2014), contributes to prognosis (see Wertli, Eugster, Held, Steurer, Kofmehl, & Weiser, 2014), and prospectively relates to pain severity, disability, and affective distress (e.g., Edwards, Bingham III, Bathon, & Haythornthwaite, 2006). However, pain catastrophising presents nonetheless some conceptual blindspots, particularly its overlap with affect constructs (e.g. depression, anxiety, worry, rumination) (see Quartana, Campbell, & Edwards, 2009 for a critical review).

It should be noted that the study of cognitive factors in chronic pain has been overly focused on the pain-specific content of psychological variables (e.g., negative pain appraisals, pain beliefs, pain catastrophising), and has given much less attention to the psychological processes underlying different contents. Indeed, one could argue that unravelling the common psychological processes running through different pain-related contents would add valuable knowledge on the protective and risk factors for chronic pain severity, including those that, although not exclusive to chronic pain, might contribute to it. For example, although classic biopsychosocial models of chronic pain recognize that attentional processes have a role in the experience of pain (see Linton & Shaw, 2011), their conceptualization is restricted to pain sensory cues, and not usually acknowledge an overall attentional pattern that manifests itself in different situations, including, but not exclusively, in pain-related situations. Exploring the intricacies of general transdiagnostic psychological processes in chronic pain is of particular importance given that a complete and integrated model of chronic pain should benefit from recognizing that the chronic pain experience is also influenced (maintained and/or augmented) by psychological and social processes not necessarily exclusive to pain. Better knowledge on these psychological processes potentially provides new avenues to not only better understand chronic pain, but also to develop more effective evidence-based pain management programs.

1.3.2.1. Mindfulness, acceptance and (self)compassion

Mindfulness

One relevant psychological process that seems to be a mechanism underlying cognitive factors contributing to chronic pain is *mindfulness* (Schütze et al., 2010). Mindfulness is an ancient construct that originated in Eastern meditation traditions (Karunamuni & Weerasekera, 2019), related to the ability to and practice of directing attention to the present moment in such a way that promotes self-knowledge and wisdom (e.g., see Purser & Milillo, 2015 for a buddhist conceptualization). Although mindfulness is rooted in a rich, complex and ancient philosophical tradition, with specific principles and ethical prescriptions (Grossman, 2015), one could argue that it is its inherent present-focused postulate of "seeing things just as they are" that has brought it to the interest of psychological science (e.g, see Kang & Whittingham, 2010 and Van Gordon, Shonin, Griffiths, & Singh, 2015 for a discussion on the relationship between a buddhist-based conceptualization of mindfulness and its inclusion in clinical psychological approaches). Indeed, although the scientific conceptualization of mindfulness is in itself a challenge (e.g., Chiesa, 2013; Bishop et al., 2004), perhaps the most common operative definition of mindfulness is: paying attention to the ongoing experience on purpose, in the present moment, and non-judgmentally (Kabat-Zinn, 2003). In psychological science, mindfulness can refer to three domains: i) mindfulness as a dispositional trait (an overall tendency a person has to be mindful); ii) mindfulness as a state (a state of present-moment awareness, thus changeable according to other variables such as context); iii) mindfulness as a practice (mindfulness meditation practice, which is the core of mindfulness-based psychological interventions) (Bishop et al., 2006; Kiken, Garland, Bluth, Palsson, & Gaylord, 2015). It should be noted that although mindfulness comprises different components (e.g., observing, describing, non-judgment, non-reactivity, acting with awareness, acceptance, clarity) (Coffey, Hartman, & Fredrickson, 2010), the ability to self-regulate attention seems to be the building block of mindfulness (Bishop et al., 2004).

The attention-related element of mindfulness makes it a particularly relevant psychological process in chronic pain (Schütze et al., 2010). Indeed, mindful awareness predicts higher pain tolerance in non-chronic pain individuals (Forsyth & Hayes, 2014), and is associated with lower levels of disability and depression in chronic pain individuals after a multidisciplinary pain management program (Cassidy, Atherton, Robertson, Walsh, & Gillett, 2012). The appropriateness of mindfulness in chronic pain research also relates to the overwhelming evidence that mindfulness decreases the risk of depression relapse (Michalak, Heidenreich, Meibert, & Schulte, 2008), and reduces depressive symptoms (see Hofmann, Sawyer, Witt, & Oh, 2010), particularly in chronic illnesses (see Bohlmeijer, Prengera, Taala, & Cuijpers, 2010 for a review). Indeed, there is mounting evidence that promoting mindfulness in pain management programs presents benefits to chronic pain patients (see Hilton, et al., 2017 for a meta-analytic review). Nonetheless, the mechanisms through which mindfulness operates and impacts chronic pain clinical outputs is underexplored. One putative mechanism that has been put forward is acceptance/openness, and indeed some studies have suggested that mindfulness promotes pain acceptance (e.g., Day & Thorn, 2016; Henriksson, Wasara, & Ronnlund, 2016).

Pain acceptance

For the last three decades, clinical psychology has been interested in acceptance as a predictor of good mental health and overall functioning. In the context of this work, acceptance is defined as the psychological process of embracing actively and in an open manner the ongoing internal experiences (e.g., thoughts, emotions, sensations) without attempting to control their frequency or form, especially if when doing so would lead to psychological harm (e.g., Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Overall, it does not mean "toleration" of events, but rather the willingness to actively remain in contact with internal experiences (usually difficult and painful ones) in order to engage in useful functional behaviors (Hayes, Strosahl, & Wilson, 1999; Hayes, 2016). Evidence suggests that acceptance is negatively correlated with depression (e.g., Liverant, Brown, Barlow, & Roemer, 2008; Michalak, Teismann, Heidenreich, Ströhle, & Vocks, 2011; Zettle, Rains, & Hayes, 2011), emotional distress (e.g., Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Politi, Enright, & Weihs, 2007), and positively correlated with well-being (e.g., Ciarrochi, Kashdan, Leeson, Heaven, & Jordan, 2011; Donaldson-Feilder, E. J., & Bond, 2004) and quality of life in chronic illnesses (e.g., Butler & Ciarrochi, 2007; Kurpas et al., 2013; Poppe, Crombez, Hanoulle, Vogelaers, & Petrovic, 2013).

In the context of chronic pain, *acceptance of pain* has emerged as an important psychological process, described as the willingness to experience pain without attempting to unproductively control it, while being committed to valued actions despite pain (McCracken, 1998). Mounting evidence suggests that pain acceptance increases pain tolerance (see Kohl, Rief, & Glombiewski, 2012), is a significant predictor of mental well-being (e.g., Kratz, Hirsh, Ehde, & Jensen, 2013; Van Damme, Crombez, Van Houdenhove, Mariman, & Michielsen, 2006; Viane, Crombez, Eccleston, Poppe, Devulder, Van Houdenhove, & De Corte, 2003), negatively correlates with functional impairment (e.g., Esteve, Ramírez-Maestre, & López-Martínez, 2007; Vowles et al., 2007; Ramírez-Maestre, Esteve, & López-Martínez, 2014) and moderates the relationship between pain and negative affect (Kratz, Davis, & Zautra, 2007).

Acceptance of pain is a complex psychological process that entails more than a mental stance towards internal experiences. It involves a standpoint of active engagement with valued activities despite experiencing pain (McCracken & Eccleston, 2003). Indeed, pain acceptance implies two different domains: 1) pain willingness (i.e., the overall openness to experience pain), and 2) activity engagement (i.e., the ability to commit to and engage in valued actions despite feeling pain) (McCracken, Vowles, & Eccleston, 2004). Although the majority of studies in chronic pain has focused on pain acceptance as a unitary concept, there is growing evidence that the behavioral aspect of pain acceptance is of particular importance: it underlies therapeutic changes (Jensen, Smith, Alschuler, Gillanders, Amtmann, & Molton, 2016; Rovner, Årestedt, Gerdle, Börsbo, & McCracken, 2014), is negatively associated with depressive symptoms (Bendayan, Esteve, & Blanca, 2012), and with pain interference and severity (Fish, Hogan, Morrison, Stewart, & McGuire, 2013). These nuances of pain acceptance have been underexplored in the chronic pain literature, especially their contribution to poor mental health indicators and differential relationship with other acceptance-related psychological processes, such as with a recently interest of chronic pain research: self-compassion.

Self-compassion

Recently, there is a growing interest in compassion in overall psychological science (e.g., Oveis, Horberg, & Keltner, 2010; Radey & Figley, 2005), especially in the realm of mental health research (Gilbert, 2005; Neff, 2003a). Alike mindfulness, compassion derives from a Buddhist tradition (Feldman & Kuyken, 2011), and is defined as a sensitivity to the suffering of others and of the self, accompanied by a genuine motivation to alleviate that suffering (Dalai Lama, 2001). According to buddhist tradition, compassion is part of the four immensurable virtues (*brahmavihāras*), alongside loving-kindness (*mettā;* an attitude of friendliness towards others), sympathetic joy (*muditā;* feeling joy for the well-being of others) and equanimity (*upekkhā*; a sense of mental balance and neutrality in the face of internal experiences) (see Goodman, Plonski, & Savery, 2018). Compassion has been recently a topic of scientific research (e.g., Ashar, Andrews-Hanna, Dimidjian, & Wager, 2016), and is proposed to stem from an attachment-related evolutionary system (Gilbert, 2005) associated to motivational systems of care-giving (Gilbert, 2014), which makes compassion an inherently affiliative motivation (see Gilbert, 2015 for an in-depth discussion of compassion and evolution of pro-sociality).

Self-compassion has become a particular interest in the context of mental health research, and is, by definition, the self-direction of compassion: it involves being touched by and nonjudgmentally open to personal suffering, not avoiding it, and instead being motivated to kindly alleviate it (Neff, 2003b). The evidence for the benefits of self-compassion is mounting, with studies suggesting self-compassion is negatively correlated to psychopathological symptoms (see MacBeth & Gumley, 2012), promotes a range of adaptive behaviors (Sirois, Kitner, & Hirsch, 2015), improves well-being (see Zessin, Dickhäuser, & Garbade, 2015), reduces stress in patients with chronic illnesses (see Sirois & Rowse, 2016), and leads to better physical health by promoting health-improving behaviors (Dunne, Sheffield, & Chilcot, 2018).

Chronic pain research has recently examined the role of self-compassion as a potential protective psychological process (Purdie & Morley, 2016). In addition to the aforementioned general benefits of self-compassion in mental and physical health, the rationale for considering self-compassion in chronic pain goes beyond that, and has both theoretical and empirical grounds. Firstly, as rooted in an affiliative system, self-compassion is related to physiological phenomena that are relevant in pain regulation: self-compassion is associated with vagally-mediated heart-rate variability (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008), and with oxytocin-endorphin systems

(Rockliff, Karl, McEwan, Gilbert, Matos, & Gilbert, 2011) that seem to be involved in pain modulation (e.g. Tracy, Georgiou-Karistianis, Gibson, & Giummarra, 2015). Indeed, self-compassion seems to have a place in comprehensive conceptualizations of chronic pain (Vowles, Sowden, & Ashworth, 2014), with studies suggesting that it is associated with fewer symptoms of emotional distress (e.g. Costa & Pinto-Gouveia, 2013), and less negative affect and pain disability (Wren et al., 2012). It should be noted that studies of self-compassion in chronic pain present the limitations of cross-sectional designs, and to our knowledge none have explored the role of self-compassion in neither longitudinal nor experimental designs in chronic pain. Also, and outside chronic pain research, only one study has explored self-compassion longitudinally while controlling for other potentially overlapping psychological processes (e.g., mindfulness) (Zeller, Yuval, Nitzan-Assayag, & Bernstein, 2015). This study found that self-compassion prospectively protects against posttraumatic stress and panic symptoms, depressive symptoms, and suicidality symptoms, beyond mindfulness. However, it should be noted that the authors used the total score of the Self-Compassion Scale (SCS).

Indeed, a burning topic in self-compassion research is the potential overlap and conflation, particularly with psychopathology, depending on the factor structure used of the most studied measure (the self-compassion scale – SCS; Neff, 2003a). In a nutshell, while the original author argues that SCS can measure self-compassion by adding compassionate self-responding atributes (self-kindness, common humanity, mindfulness) and reversed uncompassionate self-responding atributes (self-judgment, isolation, overidentification) in a single factor (e.g., Neff, 2016), others have raised concerns regarding this factor structure given that it potentially assumes different psychological processes (with different neural pathways) as pertaining to the same phenomenon (e.g., López, Sanderman, Smink, Zhang, Van Sonderen, Ranchor, & Schroevers, 2015). This has been a contentious ongoing discussion (see Muris & Otgaar, 2020; and Neff, 2020), with serious repercussions on our understanding of the role of self-compassion, given that some have challenged the total one-factor score of the SCS arguing that it could skew results because of the high correlation of the uncompassionate self-responding items with psychopathology (López, Sanderman, & Schroevers, 2018). In addition to being a recently studied process, the role of self-compassion in chronic pain has been examined almost exclusively using the one-factor total score of the SCS, which calls for the need to conduct closer examinations of its role - for example, by exploring separately the two sets of the SCS atributes (compasionate and uncompassionate self-responding).

1.3.2.2. Rumination, avoidance and fears of (self)compassion

Rumination

Rumination is defined as a pattern of response in which a person´s attention and thinking are focused on their negative emotional states (Nolen-Hoeksema, 2000). It is a mode of responding to negative emotions and overall distress by thinking about its consequences and causes in a repetitive and passive manner (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Thus, rumination is a way of coping with negative internal experiences, particularly depressive mood and overall negative emotions, that involves self-focused attention (Lyubomirsky & Nolen-Hoeksema, 1993) with a reciprocal vicious circle with depressive symptoms: feeling sad can increase the likelihood of engaging in rumination, which in turn can produce more feelings of sadness and/or depression, creating a vicious circle (Moberly & Watkins, 2008). Rumination is a transdiagnostic psychological process involved in depression and anxiety symptoms (McLaughlin & Nolen-Hoeksema, 2011), with identifiable neural correlates with depression (e.g., increased activity in the amygdala, dorsolateral prefrontal cortex, posterior cingulate)

(Berman, Peltier, Nee, Kross, Deldin, & Jonides, 2011; Cooney, Joormann, Eugène, Dennis, & Gotlib, 2010). The mechanisms underlying the relationship between rumination and depressive symptoms has been mostly regarded in literature as cognitive-focused (i.e., cognitive and meta-cognitive processes, such as negative coping styles), but less attention has been paid to its relationship with behavioral inhibition/activation outputs (Randles, Flett, Nash, McGregor, & Hewitt, 2010), particularly valued activities. Indeed, research seems to underlie rumination as a potentially avoidance-focused psychological process (Cribb, Moulds, & Carter, 2006; Dickson, Ciesla, & Reilly, 2012).

Although the attentional and cognitive nature of rumination makes it a potentially relevant psychological process in chronic pain (Schoth, Nunes, & Liossi, 2012), it has nonetheless received little attention in chronic pain research. Indeed, research on rumination in CP has been mainly focused on pain-related rumination as a subset of pain catastrophizing (Buenaver et al. 2012; Sullivan, Stanish, Waite, Sullivan, & Tripp, 1998). Nevertheless, empirical results seem to suggest that rumination in chronic pain is not limited to pain-related content (Curtin & Norris, 2017; Edwards, Tang, Wright, Salkovskis, & Timberlake, 2011). Indeed, rumination is significantly correlated with poor mental health and psychological inflexibility, and significantly predicts depression in chronic pain (McCracken, Barker, & Chilcot, 2014). Although pain-focused rumination seem to have a nefarious impact on chronic pain, and actually correlates with abnormal resting state functional connectivity of the medial pre-frontal cortex areas of the default mode network in chronic pain (Kucyi, Moayedi, Weissman-Fogel, Goldberg, Freeman, Tenenbaum, & Davis, 2014) – associated with autopilot and deminished present moment awareness -, few studies have explored the role of general rumination (i.e., not pain-focused) in chronic pain.

Avoidance

The role of avoidance in the maintenance of chronic pain disability has been a target of empirical research for a long time (e.g., Phillips, 1987; Vlaeyen & Linton, 2000). Perhaps most notably an integral part of the fear-avoidance model, research on avoidance in chronic pain has been mainly focused on the behavioral component of avoidance, and specifically of avoiding the anticipated consequences of movement/(re)injury (e.g., Vlaeyen & Crombez, 1999).

More recently, new approaches that consider the functional element of avoidance rather than conceptualize it as an overt behavioral construct (see section *1.4.2.2. Acceptance and Commitment Therapy: the hexaflex of pain*) have studied avoidance as a much broader construct characterized as the unwillingnness to get in contact with internal experiences (e.g., thoughts, emotions, sensations) that underlies several different avoidance-focused strategies (Chawla & Ostafin, 2007) detrimental to mental health (e.g., Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). This conceptualization of avoidance seems to be relevant when examining the relationship between maladaptive coping styles and poor mental health outputs (e.g., Fledderus, Bohlmeijer, & Pieterse, 2010), including in chronic pain (e.g., Costa & Pinto-Gouveia, 2011). Indeed, this functional perspective on avoidance calls for an in-depth examination and discussion on the specificities in each coping mechanism – such as rumination (e.g., Giorgio et al., 2010) and suppression (e.g., Koster, Rassin, Crombez, & Näring, 2003) - that makes it maladaptive and nefarious. The unwillingness to experience difficult internal events (i.e., experiential avoidance) seem to be at the core of it. Indeed, exploring avoidance as a functional construct, rather than a behavioral output (e.g., overt avoidant behavior, thought suppression), is a crucial aspect of studying the impact of different pain-regulation strategies, given that the detriment or benefit of a certain behavior might depend on the underlying function it serves. Indeed, when the underlying function is avoiding pain *per se*, it seems to have a counterproductive effect: it is associated with more pain disability (Wicksell, Renöfält, Olsson, Bond, & Melin, 2008), more pain intensity, and more somatic focus and psychopathological symptoms (Wicksell, Lekander, Sorjonen, & Olsson, 2010). Contrarily, reductions in pain avoidance seem to predict more life satisfaction after a psychological pain program (Wicksell, R. K., Olsson, G. L., & Hayes, 2010). Indeed, patterns of pain avoidance seem to be related to globally more dysfunctionality (Asmundson, Norton, & Allerdings, 1997; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996).

However, although evidence seems to be relatively consensual on the detrimental impact of avoidance in chronic pain, studies have been almost exclusively focused on pain avoidance, and less dedicated to exploring how avoidant-related motives underly obstacles in self-care and feelings of interpersonal connectedness and safeness, which seem to be relevant predictors of good mental health indicators (e.g., Gilbert et al., 2009; Kelly, Zuroff, Leybman, & Gilbert, 2012). Indeed, in recent years, there seems to be a growing interest within the field of mental health in better understanding the factors that underly the experience of personal difficulties in feeling safe and connected in social relationships.

Fears of (self)compassion

It is known that humans are hardwired to social bonding (Brown & Brown, 2015; Seppälä, Simon-Thomas, Brown, Worline, Cameron, & Doty, 2017). Nonetheless, some individuals experience difficulties in having positive feelings of affiliation (Gilbert, McEwan, Matos, & Rivis, 2011). This can be a serious obstacle to experiencing positive emotions and having good mental health, given that social relationships and affiliative exchanges are a central piece of emotion regulation and the sense of safeness (Depue & Morrone-Strupinsky, 2005; Gilbert, 2005, 2010, 2014).

For example, it has been recently acknowledged that some individuals fear feelings of compassion and/or react negatively to compassion (Gilbert et al., 2011; Miron, Seligowsky, Boykin, & Orcutt, 2016). These negative feelings can be experienced regarding different flows: one may experience fear of exhibiting compassion towards others (*fear of compassion for others*), perhaps due to perceiving giving support and warmth as a sign of submissiveness or having an overall unease with emotions of distress. One may also experience fears of receiving compassion (*fear of compassion from others*) if feelings of being cared for and soothed are unfamiliar, and/or if these feelings elicit traumatic memories of being shamed, criticized and put down in times when emotional support was needed. Also, one may have fears of experiencing self-compassion (*fear of compassion for self*), due to an absence of memories of experiencing compassion from others (Gilbert, 2010), making it difficult to cultivate these feelings towards the self (Pauley & McPherson, 2010). Recent evidence suggests that fears of compassion are associated with post-traumatic stress (Miron et al., 2016; Miron, Sherrill, & Orcutt, 2015), depressive symptoms (Gilbert, McEwan, Gibbons, Chotai, Duarte, & Matos, 2012) and self-criticism (Gilbert, McEwan, Catarino, & Baião, 2014). There seems to be a pattern of evidence pointing out that fear of receiving compassion from others is a particularly impactful process (Gilbert, McEwan, Catarino, Baião, & Palmeira, 2014), that relates to memories of being cared for and feeling safe during childhood (Matos, Duarte, & Pinto-Gouveia, 2017). Feeling safe, connected and cared for by others seems to be a non-neglectable element in chronic pain beyond the already studied impact of social support (e.g., Cano & Williams, 2010). In fact, some have argued that social support is not *per se* a sufficient condition to promote effective adaptation to pain, and that individual factors should be taken into consideration (Sturgeon & Zautra, 2016). Nonetheless, to our knowledge, no study has been conducted to examine the role of feeling socially safe and experiencing fears of compassion in chronic pain. Indeed, interpersonal processes have been largely reduced to social support in chronic pain literature.

1.3.3. Interpersonal processes: the (in)visibility of pain.

One aspect of pain that should be taken into great consideration is that pain, although intrinsically intrapersonal, occurs in an interpersonal context. The biopsychosocial models of pain do indeed recognize this dimension when they consider the *social* factors involved in pain conceptualizations (e.g., Gatchel et al., 2007; Turk & Monarch, 2018). Some have argued that pain recruits evolutionary-based interpersonal outputs evolved to produce better environmental fitness and thus chance of survival (e.g., Steinkopf, 2016; Vervoort & Trost, 2016), such as an interplay between pain signals (e.g., facial expressions) sent from the sufferer (e.g., Williams, 2002), and the way a significant other reacts to those signals. Indeed, a pain reaction from others may serve as a warning sign of threat that may trigger an avoidant-focused response to pain (Goubert, Vervoort, & Crombez, 2009).

Social relationships have long been a target of examination in pain research (see Bernardes, Forgeron, Fournier, & Reszel, 2017). However, studies have been mainly focused on social support (see Che, Cash, Ng, Fitzgerald, & Fitzgibbon, 2018) or on the impact of pain on social relationships (e.g. Dueñas et al., 2016), rather than on the patients′ subjective feelings of being understood, validated and cared for by significant others. Also, the somewhat contradictory evidence on the role of social support seems to suggest a rather more complex contribution. For example, some studies suggest social support to be negatively associated with pain (e.g., Brown et al., 2003), while others find no evidence (e.g. Stanke & Ivanec, 2010) or even a positive correlation (e.g., Hurter et al., 2014). This seems to suggest that examining the impact of social support and overall interpersonal variables should not only focus on the problem-solving and coping aspects of social support, but also on the emotional components within social relationships, such as the emotional texture inherent in an interpersonal relationship. In other words, it may be the case that one significant other (e.g., partner, family member, friend) might provide instrumental problem-solving help to a pain event, while simultaneously criticizing, putting down and/or ignoring the suffering of pain; or, on the other hand, it may occur that one significant other might not be able to provide an instrumental solution to pain alleviation, but doing so with emotional validation, acceptance and compassion. These nuances have been largely overlooked in chronic pain research.

1.3.3.1. Validation from others

One interpersonal process that is hypothesized to be of relevance in the experience of chronic pain is *validation*. Validation is described as the psychological process through which one individual communicates to another that their experience (e.g., emotional, cognitive, behavioral) is understandable and accepted (Linehan, 1993), providing an implicit or explicit acknowledgment that it is legitimate, thus promoting an overall perception that one´s personal experience “makes sense” (e.g., see Fruzzetti & Iverson, 2004). Validation seems to be an in-built process in emotion-regulation-focused psychological approaches (e.g., Dialectical-Behavioral Therapy) (Carson-Wong, Hughes, & Rizvi, 2018), but it has not received much attention in chronic pain research.

In the context of chronic pain, validation constitutes any behavior that communicates that the struggle, emotional experience and overall suffering related to pain is legitimate, understandable and accepted. Although there is evidence that empathetic nonverbal behavior of significant others is a relevant source of validation for chronic pain patients (see Goubert et al., 2005 for a topical review), more focused studies are needed on the effect of feeling validated when experiencing pain. One study found that partner responsiveness (e.g., empathetic response to pain expression) is associated with better longstanding physical function among people with pain (Wilson, Martire, & Sliwinski, 2017). Also, it seems that experiencing validation of pain results in less negative emotions (Edlund, Carlsson, Linton, Fruzzetti, & Tillfors, 2015) such as anger and frustration (Vangronsveld & Linton, 2011). However, there are several shortcomings in existing literature. Firstly, the majority of studies have used observational codification systems [such as the Validation and Invalidation Behavioral Coding System (Fruzzetti, 2001)] that does not necessarily inform us about the patient-focused subjective experience, which seems to be an important step to take in the study of validation in pain (see Edmund & Keefe, 2015). Also, validation as a construct seems to present overlapping elements with other already discussed processes, namely with compassion (elements such as an accepting and non-judgmental stance to suffering). Additionally, the majority of studies have focused on the impact of objective (in)validation communication from others on pain, rather than studying the subjective feeling of (in)validation. Also, the majority of studies have used proxy measures of validation [social support measures: the Multidimensional Pain Inventory (MPI; Kerns et al., 1985) and the Social support in Pain Questionnaire (SPQ; Lugt, Rollman, Naeije, Lobbezoo, & Visscher, 2011)].

1.3.3.2. Criticism from others

A great deal of research on mental health has focused on the nefarious impact of self-criticism on the development and/or maintenance of psychopathological symptoms (e.g., Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008; Luyten et al., 2007; Marshall, Zuroff, McBride, & Bagby, 2008), including in chronic pain (e.g., Lerman, Shahar, & Rudich, 2012). Overall, self-criticism is a predictor of worse psychotherapy outcomes (see Löw, Schauenburg, & Dinger, 2020), and seems to predict physician´s pessimistic prognosis in chronic pain (Rudich, Lerman, Gurevich, Weksler, & Shahar, 2008). However, fewer attention has been paid to the experiencing of being criticized by others, even though it seems that self-criticism may actually result from the internalization of others′ criticism (e.g., Thompson & Zuroff, 2004).

Nonetheless, some studies have explored criticism from others in chronic pain. For example, studies suggest that high levels of criticism and hostility from significant others are linked to greater pain intensity and decreased functionality of partners with chronic pain (e.g., Burns et al., 2013; Alschuler & Otis, 2012). It seems that attributions of patient′s pain behavior contribute to spouse hostility (Burns et al., 2018), and that excessive reassurance-seeking from chronic pain patients may result in rejection and isolation from spouses (Cano, Leong, Williams, May, & Lutz, 2012; Starr & Davila, 2008). Nevertheless, research has focused more on spousal criticism, and less on overall social relationships with significant others (Cano & Tankha, 2018). Also, research seems to lean more on examining others′ critical behavior and cognition, rather than on patients′ experience of being criticized and its impact on pain outputs. Additionally, methodological concerns can be raised on these studies: for one, the many studies have used a 1-item measure of criticism ("How critical of you was he/she during the past 3 hours?") (e.g., Burns et al., 2018), which may raise pertinent psychometric concerns regarding its sensitivity to grasp such a complex construct as criticism. Indeed, criticism may encompass a vast array of behaviors, such as comparative criticism (Thompson &

Zuroff, 2004), put-down (Shields, Franks, Harp, Campbell, & McDaniel, 1994), and shame and guilt-provoking behaviors (Gilbert, Clarke, Hempel, Miles, & Irons, 2004). Other studies have used the Multidimensional Pain Inventory (MPI; Kerns, Turk, & Rudy, 1985) and specifically its social support subscale as a proxy measure of criticism, which fails to grasp the emotionally textured toxicity nature of criticism.

1.4. Living with Chronic Pain: psychological approaches

The acknowledgment that chronic pain is a complex perceptual illness that cannot be accounted for exclusively through physical pathology have led to the realization that psychological approaches would be a crucial component of pain management (Turner & Chapman, 1982). Indeed, it is currently established that the multidimensional nature of chronic pain urges for management regimens that are integrative and interdisciplinary, focusing not exclusively on nociception, but also on the cognitive-evaluative and affective-motivational components of chronic pain (Roditi & Robinson, 2011).

Several psychological approaches have been applied to chronic pain management, from psychoanalytic stances (e.g., Perlman, 1996; Taylor, 2008), to self-regulatory approaches such as relaxation, hypnosis and/or biofeedback (e.g., Kabela, Blanchard, Appelbaum, & Nicholson, 1989), to behavioral and/or cognitive approaches (e.g., Rudy, Kerns, & Turk, 1988). Given the overall scope of the current work, this section will focus only on cognitive-behavioral approaches to chronic pain.

1.4.1. First waves of psychological interventions

The evolution and tendencies in behavioral and cognitive approaches to chronic pain management mirrors the overall *waves* of cognitive-behavioral approaches (see Hayes, 2016 for a detailed discussion of the three “waves” of cognitive-behavioral therapies). In a nutshell, the *behavioral* (first) wave focused on the observable behavior and was based on operant conditioning and behavioral learning principles (e.g., Skinner, 1953). A new shift occurred when research evidenced the relationship between maladaptive behavior and dysfunctional cognitions, giving rise to the (second) wave of *cognitive-behavioral* therapy (Beck, 1976; Ellis, 1987). When it comes to chronic pain, these so called waves result in different tenents and pain management techniques.

1.4.1.1. Operant Behavior Therapy

The general principle that runs through operant behavior therapy is that behaviors that are reinforced tend to be maintained or increase its frequency, whereas behaviors that are punished or not reinforced tend to decrease in frequency or be extinguished (Skinner, 1953). This principle could be summarized as follows: behavior is influenced by its consequences (see Staddon & Cerutti, 2003 for an in-depth examination of operant conditioning principles).

In the context of chronic pain, the principles of operant conditioning were applied to chronic pain management by Fordyce (1976). Operant Behavior Therapy in the context of chronic pain postulates that *pain behavior* (which can include patterns of response to pain, such as grunting, sighing, soliciting frequent discussions about pain, facial expressions, restriction to movement, etc) evolves into chronic pain patterns as a result from positive and/or negative reinforcements, and/or punishment of adaptive behavior, from the social environment (e.g., significant others) (Gatzounis, Schrooten, Crombez, & Vlaeyen, 2012). These responses from the social environment that can constitute *reinforcers* include expressions of sympathy, solicitousness (e.g., relieving the individual with chronic pain from even basic daily activities), or overall verbal reinforcement of pain symptoms (Kerns, Sellinger, & Goodin, 2011). Operant (de)conditioning strategies include *graded activation*, in which an activity program is implemented in a controlled and time-limited manner, in order to increase the changes of deconditioning and improve functioning (e.g., Mosely, 2003).

Although conditioned learning principles are applicable to pain behaviors, and purely operant behavioral interventions seem to improve functioning (e.g., van Tulder, Ostelo, Vlaeyen, Linton, Morley, & Assendelft, 2000), it has been argued that operant therapy cannot be implemented as a sole psychological approach to chronic pain (Sanders, 2003). For example, graded activation/exposure is usually best implemented when it includes psychoeducation about pain and/or cognitive-focused techniques (Roditi & Robinson, 2011).

1.4.1.2. Cognitive-Behavior Therapy

Cognitive-Behavior Therapy (CBT) is the most extensively studied and empirically-validated psychological approach (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). It is a systematic goal-oriented psychotherapy that has been applied to the treatment of a vast array of psychophysical disorders (Nezu, Nezu, & Lombardo, 2001), including chronic pain (Morley, Eccleston, & Williams, 1999). At its core, CBT posits that cognitions causally influence emotional states and behavior, from which derives its proposition that psychological suffering results from the relationship between a pattern of maladaptive cognitions and unhelpful behavior (Hofmann, Asmundson, & Beck, 2013). Treatment goals of CBT include symptom reduction/elimination, improvement in functioning and overall disorder remission (Hofmann et al., 2012), using both cognitive-focused (e.g., cognitive restructuring) and behavior-focused (e.g., exposure) techniques to change the content of cognitions (e.g., beliefs, appraisals) and alter behaviors (Kazantzis, Luong, Usatoff, Impala, Yew, & Hofmann, 2018).

In chronic pain, CBT usually consists of delivering psychoeducation about pain and its multidimensionality, coping skills training (e.g., reduction in catastrophising and avoidance), cognitive restructuring (i.e., altering maladaptive cognitions by replacing them for alternative more realistic ones), problem-solving, and behavioral techniques (e.g., relaxation, activity pacing, graded activation) (Roditi & Robinson, 2011). Throughout CBT for chronic pain, patients are encouraged to apply their coping skills to progressively wider daily contexts, as well as are taught to identify cues and develop plans for coping with potential flare pain episodes (Kerns et al., 2011).

Although CBT seems to be effective in reducing pain-related cognitions and in improving functioning (Smeets, Vlaeyen, Kester, & Knottnerus, 2006), it does not seem to reduce depressive symptoms more than a wait-list control (see Ehde, Dillworth, & Turner, 2014). Although robust and empirically-validated, the CBT approach (not only to chronic pain, but to overall psychological suffering) has been criticized. In fact, some have argued that attempts to change and/or control the content of thoughts (which seems to be a process close enough to cognitive restructuring) might actually be counterproductive (e.g., Wegner, Schneider, Carter, & White, 1987), including in chronic pain (e.g., Sullivan, Rouse, Bishop, & Johnston, 1997), suggesting that a more process-based (contrarily to content-focused) approach to cognitions could be beneficial (see Hayes & Hofmann, 2017). Also, evidence suggested that changes in the content of thoughts does not seem to mediate the efficacy of CBT in reducing depression and anxiety (e.g., Burns & Spangler, 2001), which gave rise to an emerging interest in exploring new process-based psychological approaches that were more firmly engaged with the *function* rather than *content* of cognitions (Hayes, 2004).

1.4.2. A new wave of hope

The so called “third wave” of CBT approaches solidly emerged in the 1990s and 2000s, and was received with rather skepticism about its genuine innovative features (Hofmann & Asmundson, 2008). These new approaches were more contextualistic, more focused on the function of internal events (e.g., thoughts) rather than their content, and thus did not focus on changing thoughts and emotions, but instead proposed a radical alternative: to change how one relates to internal experiences (e.g., thoughts, emotions, sensations) instead of changing these internal experiences. Specifically, third-wave approaches (also known as *contextual-behavioral*), asserts that a more effective way of dealing with difficult internal experiences is by willingly and nonjudgmentally accepting them, rather than trying to eliminate and alter its frequency, duration and intensity (e.g., Hayes, Villatte, Levin, & Hildebrandt, 2011).

Several psychological approaches have emerged as contextual behavioral, each with its specific identifiable tenents, approach to psychological suffering and proposed set of techniques to tackle mental health difficulties (see Kahl, Winter, & Schweiger, 2012 for an overview of different third-wave psychotherapies). Although these different approaches present several conceptual and practical overlaps, including with standard CBT (Hofmann & Asmundson, 2008), we propose that there are three distinctive components of the so called “third-wave” that clearly sets them apart: 1) the use of *mindfulness*, not only as an instrumental technique, but indeed as a heuristic shift in both the conceptualization and treatment of psychopathology, and promotion of mental health; 2) putting *acceptance* at the center stage of the psychotherapeutic process, rather than aiming at changing thoughts, emotions and overall symptoms as the primary therapeutic goal; 3) incorporating *compassion* as an active ingredient of therapy, with standardized and potentially validated exercises, rather than merely as a nonspecific factor in therapeutic relationship.

1.4.2.1. Mindfulness: a radical shift

The popularity of mindfulness has been increasing for the last three decades. When it comes to clinical psychology, mindfulness is perhaps the most paradigm shift event of the third wave of CBT. Indeed, either as a merely technique to promote present moment awareness, or a multifaceted ethical practice, mindfulness meditation is an almost ubiquitous component of third wave CBT (Grossman & Van Dam, 2011). Mindfulness meditation is rooted in Theravada Buddhism, where it is known as *sattipatana vipassana*, which can be decoded into insight meditation (Cullen, 2011).

Interestingly, one of the first defining moments of mindfulness in clinical psychology occurred in the context of chronic pain, when Jon Kabat-Zinn (1982) resorted to mindfulness meditation and applied it to long-term chronic pain patients who did not respond successfuly to traditional medical treatments. Results suggested that mindfulness meditation was effective in reducing pain intensity as well as depressive mood (Kabat-Zinn, 1982), with tested long-term effects of up to 4 years (Kabat-Zinn, Lipworth, Burncy, & Sellers, 1986). Another pivotal moment of mindfulness meditation was in the context of depression and depression relapse. A seminal paper by Teasdale, Segal and Williams (1995) proposed that vulnerability to have a relapse depressive episode occurs due to repetitive associations between depressed mood and a pattern of negative cognitions (e.g., self-devaluative, hopelessness). They suggested that one of the main differences between recovered depressed patients and individuals who have never had a depressive episode is that the former have a pattern of negative thinking that is activated by mild states of dysphoria, which in turn can intensify them in a self-perpetuating ruminative cognitive-affective cycle (Teasdale, Segal, Williams, Ridgeway, Soulsby, & Lau, 2000). Mindfulness meditation was suggested as a way of promoting awareness of negative thoughts and feelings in vulnerable times of potential relapse, thus a person being able to uncouple from ruminative thinking and seeing them in a “decentered” way, i.e., as mental events and not reflections of reality (Segal, Teasdale, & Williams, 2004). Since then, the efficacy of mindfulness meditation in depression relapse prevention has been empirically corroborated (see Piet & Hougaard, 2011).

In the context of chronic pain, the rationale behind the usefulness of mindfulness meditation has multiple grounds: 1) given the high correlation between depressive symptoms and chronic pain, mindfulness meditation seems to be a fitting approach to prevent major depressive episodes relapse; 2) mindfulness meditation promotes awareness of internal events (e.g., thoughts, emotions, sensations) (Shapiro et al., 2006), which are part and parcel of the multi-dimensional experience of pain, thus potentially interrupting loops of catastrophizing-avoidance that would otherwise lead to worse functioning, and promoting actions guided by motives other than controlling pain; 3) mindfulness meditation seems to promote a decrease in pathophysiological outputs, such as inflammation and cell-mediated immunity (see Black & Slavich, 2016), which can be a non-neglectable element of chronic pain pathophysiology (e.g., Ji, Chamessian, & Zhang, 2016).

Several studies on the efficacy of Mindfulness-Based Interventions (MBI) in chronic pain have been conducted in mixed samples of chronic pain. Results seem to suggest that MBIs are effective in reducing pain intensity, depression, and increasing mindfulness and pain acceptance, although with small effect sizes when compared to active controls (e.g., education, multidisciplinary intervention) (see Bawa, Mercer, Atherton, Clague, Keen, Scott, & Bond, 2015). Also, studies suggest that MBIs lead to improvements in coping with pain, but these tend not to be statistically different than passive controls, and nonspecific factors (e.g., support derived from the group format) are hypothesized to contribute to therapeutic changes (see Chiesa & Serretti, 2011). In addition to the high heterogeneity of samples, one noticeable shortcoming of these studies is the application of nonmanualized treatments, which may hinder important methodological elements, such as standardization of the intervention. Also, it seems that home practice between sessions is associated to better clinical outcomes, and patients with widespread pain (e.g., fibromyalgia) present the smallest improvements in psychological distress (Rosenzweig, Greeson, Reibel, Green, Jasser, & Beasley, 2010). This seems to point towards the potential benefits of integrating purely mindfulness-based approaches into other theoretically coherent and complementary acceptance-based approaches (Veehof, Oskam, Schreurs, & Bohlmeijer, 2011).

1.4.2.2. Acceptance and Commitment Therapy: the hexaflex of pain

Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) is a process-based psychological approach, with a clear philosophical foundation (*Functional Contextualism*), as well as based or developed in paralell with a theory of language and cognition (*Relational Frame Theory*) (Fletcher & Hayes, 2005). As a post-Skinnerian approach, and part of the functional analytic tradition, functional contextualism provides the philosophical grounds underlying ACT (e.g., see Hayes, Hayes, & Reese, 1988). It posits that a) the focus of analysis should be on the event as a whole; b) it should be taken into consideration the context in which the event occurs, with a special focus on the nature and function of the event, c) consider as the truth criterion the utility/workability of an event; and d) focus on specific scientific goals from which to apply the truth criterion (Hayes, 2004). From here derives a distinctive feature of ACT: an event (e.g., behavior) is not aimed to be interpret as problematic (and thus targeted in therapy) without firstly considering its functional properties. Also, and perhaps most importantly, “truth” is not something to be factually counter-checked with data from reality, but rather interpret in terms of its workability. As an example, when a negative though “I am the worst father” arises in session, while standard CBT would apply cognitive restructuring (confront with reality and helping formulate more rational alternative cognitions), ACT focuses on how this cognition helps (or not) moving the client towards a valued and meaningful life. This radical change in clinical approach is also based on theoretical and empirical evidence of Relational Frame Theory (RFT; e.g., Barnes-Holmes, Barnes-Holmes, & Cullinan, 2000), which suggests that psychological suffering results from language-based phenomena that are inherent in human cognition. Specifically, psychological suffering becomes clearly ubiquitous when one considers the arbitrary relations between stimuli that human language produces, making it possible to relate different stimuli beyond their formal properties, according to mainly three cognitive operations: 1) mutual entailment (e.g., If A relates to B, then B relates to A); 2) combinatorial entailment (e.g., if A relates to B, and B relates to C, then A relates to C); 3) transformation of stimulus function (e.g., if A is more valuable than B, and B is more valuable than C, then A is more valuable than C) (see Barnes-Holmes, Barnes-Holmes, Smeets, Cullinan, & Leader, 2004 for an in-depth examination of RFT). From these properties, several maladaptive processes can result, such as entanglement with interpretations of danger, catastrophic cognitions, rumination, negative self-cognitions. Thus, given that cognition is learned behavior that can hardly be reduced or eliminated (Hayes et al., 2006), ACT proposes a distinctive way to target problematic behavior that involves: openness, awareness, and valued action (Hayes, Villatte, Levin, & Hildebrandt, 2011). These three overarching processes compose the core model underlying ACT: *The Psychological Flexibility Model* (PFM).

In fact, the ultimate therapeutic goal of ACT is to help promote *psychological flexibility*, which seems to be a key factor in psychological health (see Kashdan & Rottenberg, 2010), and is defined as the ability to change or persist in a certain behavior according to personal values and goals, while being aware and open to internal experiences (e.g., thoughts, emotions, sensations) (e.g., Hayes et al., 2006) (see Figure 1).

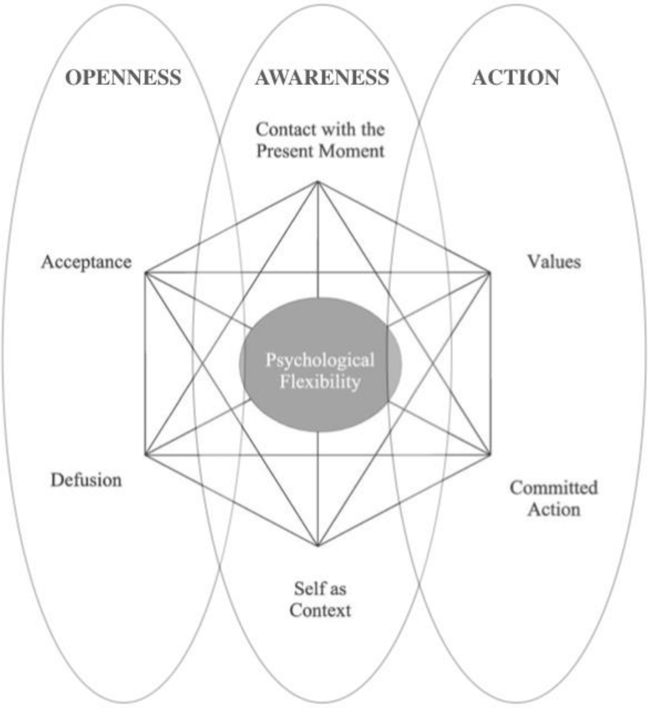

Figure 1. The psychological flexibility model (PFM), adapted from Hayes et al. (2006), with the additional three overarching processes.

The six core processes that encompass the psychological flexibility construct and model has their nefarious opposite processes, which depicts the ACT conceptualization of psychopathology that stems from *psychological inflexibility*.

According to ACT and its (in)flexibility model (also known as *hexaflex*), psychopathology occurs when a person gets entangled with internal experiences, such as thoughts, emotions, sensations, urges (*cognitive fusion*), and is unwilling to have those experiences, engaging in attempts to alter the form and frequency of these experiences (*experiential avoidance*). A putative result from this is that one gets also fused with negative conceptualizations of the self (*attachment to the conceptualized self*) and live mentally predominantly in a conceptualized past or anticipated future (*dominance of conceptualized past or feared future*). These have concrete behavioral implications, such that personal values get unclear (*lack of values clarity*) and behavior reflects not only uncommitted valued action, but actually avoidant-focused action (*uncommited action, inaction, impulsivity, avoidant persistence*). Empirical research has corroborated the nefarious role of psychological inflexibility processes, namely the detrimental effect of cognitive fusion in mental and physical health (e.g., Gillanders, Sinclair, MacLean, & Jardine, 2015; Pinto-Gouveia, Dinis, Gregório, & Pinto, 2016; Romero-Moreno, Márquez-González, Losada, Gillanders, & Fernández-Fernández, 2014), as well as experiential avoidance in predicting psychopathological symptoms (e.g., Brereton & McGlinchey, 2020; Chawla & Ostafin, 2007). More recently, the detrimental roles of uncommitted action (e.g., Coutinho, Trindade, & Ferreira, 2019; Trompetter, Klooster, Schreurs, Fledderus, Westerhof, & Bohlmeijer, 2013) and conceptualized self (e.g., Moran, Almada, & McHugh, 2018; Zettle, Gird, Webster, Carrasquillo-Richardson, Swails, & Burdsal, 2018) as contributors to poor mental health have also been empirically established. Indeed, these processes, and/or their flexible counterparts (see Figure 1), have been established in several laboratory-based studies (see Levin, Hildebrandt, Lillis, & Hayes, 2012).

The efficacy of ACT, as well as its underlying PFM, has been vastly tested through empirical analysis, and overall studies suggest that it is an effective psychological approach to different physical and psychological conditions (e.g., see A-tjak, Davis, Morina, Powers, Smits, & Emmelkamp, 2015), including anxiety (e.g., Arch, Eifert, Davies, Vilardaga, Rose, & Craske, 2012), depression (e.g., Hayes, Boyd, & Sewell, 2011), and chronic pain (e.g., Wetherell et al., 2011).

In fact, although the overall efficacy of ACT has been disputed – mainly due to fundamental differences in measurement of efficacy (for a back-and-forth discussion, see: Öst, 2014; Atkins et al., 2017 response; and Öst et al., 2017 rebuttal) -, the efficacy of ACT in chronic pain management is perhaps the most well-studied and empirically established application of ACT (see e.g., Feliu-Soler, Montesinos, Gutiérrez-Martínez, Scott, McCracken, & Luciano, 2018; Hughes, Clark, Colclough, Dale, & McMillan, 2017), which have led the American Psychological Association's Division of Clinical Psychology to establish ACT as empirically supported for chronic pain (APA, 2011).

The PFM seems to be a fitting conceptual lens through which chronic pain can be examined due to its contextualistic nature (McCracken & Vowles, 2014; Scott & McCracken, 2015) (see Figure 2).

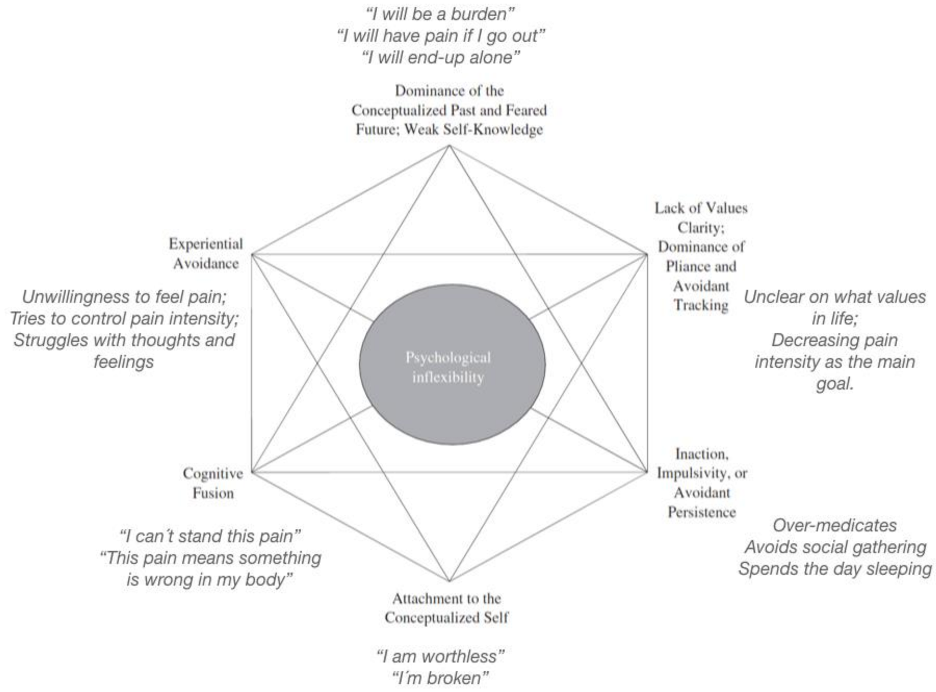

Figure 2. The Inflexibility Model (Hayes, et al, 2006) adapted to chronic pain.

Indeed, the PFM seems to be aligned with the numerous studies corroborating the importance of considering both cognitive and affective factors in chronic pain, including the evidence underlying the fear-avoidance model (McCracken & Morley, 2014). However, by focusing on transdiagnostic and contextual processes, rather than pain-specific psychopathologically-oriented content (e.g., pain catastrophizing, pain rumination), it provides not only a more humanistic approach, but a more accurate one, given that it acknowledges all internal experiences (pain-specific or not) as contributors to chronic pain disability. From here, derives a paramount innovation: not only it includes these processes related to other aspects of life as a whole, but more importantly it provides a comprehensive approach to the underlying processes running through different pain-related cognitions, which has great clinical implications. In other words, according to the PFM underlying ACT, the problematic nature of catastrophizing, for example, does not lie on the content itself (i.e., anticipating a catastrophic occurrence), but rather on getting entangled with that content. The clinical implication is clear: one should not focus on changing the content (for example, through cognitive restructuring) but rather on promoting a different stance towards that content, one that is characterized by being non-judgmentally aware of and open to experience it, in order to actively engage in meaningful and valued activities despite pain. In fact, the empirical evidence of the role of psychological (in)flexibility processes in the maintenance and/or exacerbation of chronic pain suffering is well-established in literature. For example, several processes have been implicated in chronic pain disability, such as low cognitive defusion (e.g., McCracken et al., 2014; McCracken, DaSilva, Skillicorn, & Doherty, 2014), experiential avoidance (e.g., Costa & Pinto-Gouveia, 2013; McCracken & Samuel, 2007), low valued living (e.g., McCracken & Vowles, 2008) and low committed action (e.g., Bailey, Vowles, Witkiewitz, Sowden, & Ashworth, 2016). Indeed, psychological flexibility seems to be a mediator of therapeutic change of ACT for chronic pain (e.g., McCracken & Gutiérrez-Martínez, 2011; Wicksell, Olsson, & Hayes, 2010).

Nevertheless, there seems to be tacit elements underlying ACT that have not received much attention. For example, it should be noted that the focus on promoting present moment awareness in ACT is behaviorally-focused, i.e., serves the sole purpose of increasing openness in order to better choose valued-based actions, rather than following the larger ethically-oriented stance of mindfulness meditation commonly underlying MBIs. This seems to raise important research questions regarding the presence or absence of crucial mindfulness elements that go beyond awareness and openness (e.g., equanimity, compassion, acceptance). One aspect that seems to permeate mindfulness meditation, but seems to be theoretically absent in ACT, is a commitment to alleviate suffering in a kind and soothing manner (e.g., Keng, Smoski, Robins, Ekblad, & Brantley, 2012). In fact, there seems to be a growing interest in exploring the route of compassionate meditation and examining its benefits in chronic pain.

1.4.2.3. Compassion: the missing tone

The growing evidence of the benefits of self-compassion in physical and mental health (e.g., Dunne et al., 2018; MacBeth & Gumley, 2012; Sirois et al., 2015), as well as in improving interpersonal and social relationships (e.g., Crocker & Canevello, 2012), has prompted both researchers and clinicians to include the promotion of self-compassion as a therapeutic goal, and to develop evidence-based programs that promote (self)compassion. In fact, compassion has gained much attention in the last years, not exclusively but also due to the growing evidence that it impacts on physiological systems, such as increasing heart rate variability (which is associated to autonomic system regulation) (see Kirby, Doty, Petrocchi, & Gilbert, 2017), and brain activation of prefrontal cortex (Weng et al., 2013) and of brain regions associated to positive affect and affiliation (e.g., orbitofrontal cortex, putamen, pallidum, and ventral tegmental area) (Klimecki, Leiberg, Lamm, & Singer, 2013). The potential physiological impacts of compassion seems to be aligned with the Polyvagal Theory, which states that the activation of myalinated parasympathetic nervous system (which compassion is assumed to activate; Kirby et al, 2017) regulates the fight/flight response (see Porges, 2007 for a rigorous description), leading to feelings of calmness and safeness (Porges, 2011). Different strategies can be implemented to produce this parasympathetic activation of vagally-mediated feelings of safeness and calmness, such as compassionate meditation (e.g., Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008), friendly voice tones and facial expressions (e.g., Petrocchi, Ottaviani, & Couyoumdjian, 2017). There are a myriad of compassion-based programs (see Kirby, Tellegen, & Steindl, 2017), many of which have been subjected to randomized control trials suggesting their benefits in mental and physical health (Hofmann, Grossman, & Hinton, 2011; Kirby et al., 2017; Leaviss & Uttley, 2015). Overall, compassion-based programs usually are particularly focused on self-compassion, aiming at developing a nonjudgmental stance towards personal difficult experiences, one that is characterized by self-warmth, self-kindness, a present moment awareness, and the acknowledgment that suffering is an inherent part of the human experience (Neff, 2003a; Gilbert, 2005). These programs include mindfulness meditation, loving-kindness meditation, compassionate imagery, compassionate exercises (e.g., compassionate writting), and self-care prompts.

In the context of chronic illness, compassion represent a crucial additional element of therapy, given that it seems to protect against stress-related inflammation and disease (e.g., Breines, Thoma, Gianferante, Hanlin, Chen, & Rohleder, 2014; Pace et al., 2009). Indeed, the limitations that a chronic illness, such as chronic pain, create in daily activities, as well as in interpersonal relationships, can prompt unhelpful and toxic psychological processes such as self-criticism and guilt related to being a burden, not managing the illness well enough, and failing to meet personal and other people´s expectations (e.g., Hochwarter & Byrne, 2010; Lerman et al., 2012).

A recent systematic review of the efficacy of compassion-based interventions for chronic pain was not able to find methodologically robust studies that would allow a definite conclusion on their efficacy (Lanzaro, Carvalho, Lapa, Valentim, & Gago, *under review*). Nevertheless, results from the 7 studies reviewed suggest potential benefits in pain-related outcomes (e.g., pain intensity, acceptance, catastrophizing, self-efficacy, disability, distress, pain related coping, and anxiety). One limitation for establishing its efficacy is the huge heterogeneity of studies, both on their duration (from 20 mins to 120 mins per session), format (group and online) and overall content and therapeutic strategies (some focused on loving-kindness, others on compassionate writing, others on imagery). Also, the majority of studies were uncontrolled (Gooding, Stedmon, & Crix, 2020; Parry & Malpus, 2017; Penlington , 2019; Ziemer, Fuhrmann, & Hoffman, 2015), and one was compared with a wait-list (Chapin, Darnall, Seppala, Doty, Hah, & Mackey, 2014), another with treatment-as-usual (Carson, Keefe, Lynch, Carson, Goli, Fras, & Thorp, 2005), and another one with relaxation condition (Montero-Marin et al., 2020).

These suggest that, although promising, the efficacy of compassion-based programs needs a more thorough examination, particularly its specific contribution to mindfulness- and acceptance-based interventions. This is a central piece in understanding the differential contributions of these processes and approaches to mental and physical health. Indeed, mindfulness, acceptance and (self)compassion seem to overlap in several domains. For example, mindfulness is described as a necessary and core element of self-compassion (Neff, 2003a; Neff, 2003b), but self-compassion seems to go beyond that and include an additional emphasis on affective-motivational components (e.g., self-kindness, motivation to action) that mindfulness may not explicitly entail (Birnie, Speca, & Carlson, 2010). This raises potential implications, given that self-compassion might, then, be a useful tool to promote active engagement with valued activities, thus increasing functioning. Also, it seems that both mindfulness and self-compassion foster acceptance and present moment awareness (See Neff & Dahm, 2015 for a topical discussion), raising questions on how these processes relate to each other, as well as interact in chronic pain.

1.5. The case for COMP.ACT: a new psychological program for living with chronic pain

The similarities and differences between mindfulness-, acceptance- and compassion-based interventions prompts us to consider the potential benefits of integrating these different yet complementary approaches into an integrated psychological program for chronic pain. Although ACT incorporates mindfulness meditation in a focused manner (i.e., a tool for developing present moment awareness, thus better choosing behavior towards a valued and meaningful life) (see Fletcher & Hayes, 2005), rather than in its full philosophical and ethical dimensions (see Kang & Whittingham, 2011), ACT is a theoretically solid approach that incorporates central elements of mindfulness- and acceptance-based interventions.

Although the theoretical underpinnings of ACT and the PFM do not acknowledge (self)compassion as an explicit element of the model, recently there seems to be a growing interest in self-compassion within contextual-behavior science (e.g., Luoma & Platt, 2015; Tirch, Schoendorff, & Silberstein, 2014). Indeed, for the last few years, we have witnessed a progressive approximation between ACT and compassion-based approaches, perhaps due to the potential complementarity of the PFM processes and self-compassion (Neff & Tirch, 2013; Neff & Dahm, 2015). For example, there is evidence suggesting that ACT promotes self-compassion, even when not including explicit compassion-inducing practices (Yadavaia, Hayes, & Vilardaga, 2014). Specifically in chronic pain research, self-compassion seems to have a particularly close relationship with processes from the PFM. In fact, in chronic pain, self-compassion seems to be an integrated element of the PFM, with uncompassionate self-responding (i.e., self-judgment, isolation, over-identification) loading onto the 'fusion/avoidance' part of the model, and aspects of compassionate self-responding (i.e., mindfulness and common humanity) loading onto 'present moment awareness' (Vowles, Sowden, & Ashworth, 2014). Indeed, self-compassion seems to be related to acceptance in chronic pain (Costa & Pinto-Gouveia, 2011), as well as to success in valued living (Edwards, Pielech, Hickman, Ashworth, Sowden, & Vowles, 2019). Also, self-compassion is reported to be a therapeutic mechanism underlying the efficacy of ACT in chronic pain (Vowles, Witkiewitz, Sowden, & Ashworth, 2014).

Nevertheless, it is still unclear the added value of incorporating explicit self-compassion exercises in ACT. In fact, although some studies have successfully incorporated compassionate and ACT approaches (e.g., in eating-related difficulties; Hill, Schaefer, Spencer, & Masuda, 2020; in obesity; Palmeira, Pinto-Gouveia, & Cunha, 2017; in binge eating; Pinto-Gouveia et al., 2017; in HIV; Skinta, Lezama, Wells, & Dilley, 2015; in breast cancer; Trindade, Ferreira, Pinto-Gouveia, 2020), the research designs (control conditions were WL or TAU) did not allow for establishing the added value of including explicit compassionate exercises in ACT interventions. This is an important subject matter not only for designing parcimonious and effective psychological interventions in general, but particularly in chronic pain, where self-compassion is theoretically hypothesized to be rooted in psychophysiological systems that seem to play a beneficial role in pain modulation and/or management.

Chapter 2: Aims and Methodology

The current research project is based on previous literature that focused on the psychosocial factors underlying chronic pain, specifically their impact on pain-related suffering (e.g., functional impairment, pain disability, depressive symptoms). Up to date models of chronic pain agree that psychosocial factors are involved in chronic pain, not only as consequences of the impact of chronic pain, but also as contributors to the maintenance and/or increase of pain symptoms (e.g., Bevers et al., 2016; Loeser, 1982; Turk & Okifugi, 2002; Turk & Monarch, 2002). Indeed, mood and overall psychosocial factors are advised to be integrated in both pain assessment and intervention (IASP, 2012). It is recommended that chronic pain management should go beyond a pathophysiology-focused approach exclusively aiming at solving abnormalities in nociception, and rather provide an empirically-validated interdisciplinary care that focus on the multidimensional nature of chronic pain, including the overall suffering and pain behaviors (e.g., Schatman, 2012). To provide a healthcare solution that is empirically-based and clinically sound, one should be able to pinpoint the exact contribution of the multiple factors involved in chronic pain aetiology, as well as to unvail the potential relationship (either potentiating or buffering) between those factors.

Overall, the current project aims to contribute to a better understanding of the role of psychological factors in development of psychological suffering in women with chronic pain, as well as to develop and pilot test the acceptability and efficacy of a group psychological intervention for women with chronic pain (COMP.ACT).

2.1. The backdrop behind the current project

For the last three decades, the established and perhaps intuitive proposition that pain management should focus on pain alleviation at all cost, has been greatly challenged by research. In fact, the overwhelming body of studies pointing out that (1) avoidance is counterproductive (e.g., Chawla & Ostafin, 2007; Fledderus, Bohlmeijer, & Pieterse, 2010; Wicksell, Renöfält, Olsson, Bond, & Melin, 2008), and (2) that acceptance of pain and overall internal experiences are related to more pain tolerance, and better mental health and functioning (e.g., Kohl, Rief, & Glombiewski, 2012; Kratz, Davis, & Zautra, 2007; Kratz, Hirsh, Ehde, & Jensen, 2013; Ramírez-Maestre, Esteve, & López-Martínez, 2014), have resulted in innovative psychological approaches to chronic pain. These new approaches – which focus on mindfulness, acceptance and commitment to valued living, and more recently the ability to self-to-self relate in a kind and soothing manner - raise crucial research questions on a) the usefulness and appropriateness of current measures of key psychological variables; b) the potential differences and overlap between psychological processes, and how they interact and predict depression and functioning; c) the robustness of cross-sectional results, and their ability to hold validity in time-lagged designs (i.e., if they indeed reflect the temporal relationship between variables, or are merely a statistical artefact of circularity); d) the added valued (as well as to whome and when) of incorporating different elements of different approaches that, nonetheless, target processes that are conceptually overlapping. The current work aimed to contribute to a better understanding of each of these issues, and add to the ongoing conversation around them in the context of chronic pain.

There is mounting evidence that the Psychological (In)flexibility Model is a suitable one to interpret chronic pain (McCracken & Vowles, 2014; Scott & McCracken, 2015), but there seems to be an imbalanced attention towards its processes, with much research focused on “openness” and “awareness” processes, and less so on the “action” processes. Even when considering the research on values and valued-action, the measures used present considerable limitations on the scope of what they can conclude, due to the way these scales are conceived to measure the construct. For example, the majority of instruments of values contain different life domains, and measure it in terms of “importance” and “congruence”, which in fact may result in skewed results, given that a certain domain may be valued, but due to context-related variables they may be unable to act upon it (e.g., one may value patience and kindness in parenthood, but one may not be currently a parent; one may value cooperation and being present at work, but one may be unemployed).

Also, seminal research on the role of mindfulness in relapse prevention seems to point out that one possible explanation for its preventive role is its impact on interrupting patterns of ruminative thinking (e.g., Teasdale et al., 2000; Segal et al., 2001). However, this is underexplored in chronic pain. In fact, rumination is almost exclusively studied in chronic pain research through its proxy measure of pain catastrophising (Sullivan et al., 2001). Also, although the loops between negative cognition (rumination) and mood (depression) seems to be a sound hypothesis, there may be other intermediate processes between this relationship that are relevant to acknowledge in order to develop more effective and targeted interventions. In fact, more information is needed in terms of the role of valued living in how rumination associates to depression, providing information not only in terms of the role of behavior, but more importantly on the obstacles and progress experienced in valued living.

Additionally, research seems to be consensual around the assumption that significant others and interpersonal relationships are crucial in chronic pain. However, research is mainly focused on social support (e.g., Che, Cash, Ng, Fitzgerald, & Fitzgibbon, 2018;

Dueñas et al., 2016), and less on emotionally textured experiences with significant others. In fact, research seems to be almost exclusively focused on spousal support, and less on other significant relationships. The few studies that explored emotionally textured interpersonal relationships, including the experience of being validated or criticized by others when experiencing painful events/flares, use measures that are either insufficient of grasping the multi-layered experience (e.g., using 1-item measures) (e.g., Burns et al., 2018), or are focused on the significant other´s objective behavior (see Edmund & Keefe, 2015), rather than on the subjective emotional experience of the person with chronic pain. Also, the literature, to our knowledge, has neglected the relevance of feelings of social safeness and connectedness in chronic pain, even though the research outside chronic pain seems to suggest that it is a relevant element in affect regulation (e.g., Kelly et al., 2012). In fact, the overfocus on the instrumentality of social support has also neglected the emotional and affect regulation elements in how a person receives that support. Research outside chronic pain seems to point out that so called fears of (self)compassion, namely fears of receiving compassion from others, are an important element in vulnerability to psychopathology (e.g., Gilbert et al., 2012; Gilbert et al., 2014; Matos et al., 2017). Better understanding these interpersonally-related psychological processes may inform future chronic pain psychosocial interventions.

Self-compassion has been a growing interest in chronic pain research for the last 6 years (e.g., Purdie & Morley, 2016). However, studies have focused on the impact of self-compassion in psychopathology and adjustment, and few studies have leaned on the relationship between self-compassion and other psychological processes in chronic pain, namely those with which potential issues of overlap may occur (e.g., mindfulness). In fact, it is theoretically established that mindfulness and self-compassion contain "acceptance" at their core (see Neff & Dahm, 2015), but to our knowledge it is still unclear how both relate to different dimensions of acceptance, particularly pain acceptance. Also, to our knowledge, all the studies of self-compassion in chronic pain present the limitations of cross-sectional designs, and no time-lagged examination of its predictive role in chronic pain has been conducted. In fact, and outside chronic pain, to our knowledge there is only one longitudinal study that explored self-compassion while controlling for mindfulness (e.g., Zeller et al. 2014). Additionally, the majority of studies of self-compassion, particularly in chronic pain, have used the total score of the self-compassion scale (SCS), which has been much criticized over the last years. In fact, putting aside the contentious back-and-forth around this issue (see Muris & Otgar, 2020; and Neff, 2020 for an updated discussion), we do agree that using a total score potentially skews results on the role of "self-compassion", given that evidence might be, in fact, inflated due to the role of the uncompassionate self-responding items (which are highly correlated with psychopathological symptoms). In fact, we take this issue very seriously, given that state of the art of self-compassion evidence might be, in fact, evidence of the reversed uncompassionate self-responding (self-judgment, isolation, overidentification), and not of the compassionate self-responding attributes (self-kindness, common humanity, mindfulness). This is not only a relevant issue when exploring the role of self-compassion in chronic pain clinical outputs (depression, disability, impairment), but also when examining the relationship between self-compassion and other potential overlapping processes, namely psychological (in)flexibility processes with which it potentially overlaps.

In fact, another current issue in literature, within and outside chronic pain, is the role self-compassion plays in the psychological (in)flexibility model. Studies suggest that it is a tacit process in ACT for chronic pain (Vowles, Sowden, & Ashworth, 2014), and indeed a therapeutic mechanism of change underlying ACT for chronic pain (Vowles, Witkiewitz, Sowden, & Ashworth, 2014). This seems to suggest that adding explicit compassion-based exercises in ACT should potentially boost its efficacy. However, this has never been tested.

2.2. General and Specific aims

The current project presents four broad research aims. These aims intend to contribute to four areas of knowledge around the role of psychological factors in chronic pain: 1) the *assessment* of relevant psychological processes involved in the maintenance and/or intensification of chronic pain clinical outcomes; 2) the better understanding of how different yet conceptually related psychological processes *associate* with depressive symptoms in chronic pain; 3) knowledge on how key psychological processes and pain-related outputs *predict* depressive symptoms; 4) pain management strategies, by developing and pilot testing a group *psychological program* for chronic pain. Regarding the latter aim, we intended to contribute to a better understanding of the role of self-compassionate explicit exercises in ACT for chronic pain, and specifically to examine whether there are significant differences in the efficacy of an ACT group intervention for chronic pain when explicit self-compassionate exercises are incorporated. Table 1 depicts the general and specific aims of the current work.

Table 1. General and specific aims, and respective studies.

Broad contribution	General aims	Study	Specific Aims
Psychometrics of adequate measures of psychological processes	Translation and psychometric study of the Valuing Questionnaire (VQ).	I	• To explore the psychometric properties of the VQ (confirmatory factor structure, convergent validity, temporal stability, incremental validity) in general and chronic pain samples
	Development and psychometric study of the Perceived Validation and Criticism in Pain Questionnaire (PVCPQ)	II	• To develop and explore the psychometric properties of the PVCPQ (exploratory factor analysis, reliability analysis) in a sample of women with chronic pain • To examine the association between the PVCPQ and functional impairment beyond pain symptoms (pain intensity, affect) and related psychological constructs (safeness, compassion from others)
Better understanding of the psychological processes underlying chronic pain	Examining the relationship between key psychological processes and their contribution to experiencing depressive symptoms in women with chronic pain.	III	• To examine the role of cognitive fusion in the relationship between pain intensity and depressive symptoms • To explore whether self-compassion moderates the relationship between cognitive fusion and depressive symptoms
		IV	• To compare the differential relationship of mindful awareness and self-compassion, and depressive symptoms • To explore which components of pain acceptance underlie the relationship between mindful awareness and self-compassion, and depressive symptoms

		V	- To explore the role of rumination underlying the relationship between mindful awareness and depressive symptoms - To examine whether valued living mediate the relationship between rumination and depressive symptoms
		VI	- To explore the mediating role of fears of compassion in the relationship between self-compassion and social safeness and pleasure.
		VII	- To examine which component of the Self-Compassion Scale contribute to depressive symptoms, above and beyond pain-related symptoms (pain intensity and disability) and related psychological processes (pain fusion and avoidance, and valued living)
Better understand how psychological processes longitudinally predict depressive symptoms in chronic pain	To explore whether key psychological processes (cognitive fusion and self-compassion) predict depressive symptoms in a time-lagged design	VIII	- To test whether cognitive fusion predicts changes in depressive symptoms (baseline – 6-months – 12-months) while controlling for pain intensity and functional impairment
		IX	- To examine the moderating effect of self-compassion in the relationship between functional impairment and depressive symptoms 6-months and 12-months later, while controlling for pain intensity, mindful awareness and depression at baseline.
Development of evidence-based psychological interventions for chronic pain	To develop and test the acceptability and preliminary efficacy of a Compassionate ACT group program for women with chronic pain (COMP.ACT)	X	- To compare, in a mixed-method design, the acceptability and preliminary efficacy of COMP.ACT, and explore the added value of explicit (self)compassionate exercises in ACT for chronic pain.

2.3. Methodology

This section will comprise general considerations on the methodology behind the empirical studies of the current project, with the purpose of providing an overview of methodological choices behind different studies. Specific methodological issues are detailed and discussed within each empirical study (see *Part 2 – Empirical studies*).

2.3.1. Design

The empirical studies included in the current dissertation followed different study designs according to the underlying research questions (see Table 2).

Table 2. Overview of study designs of each empirical study

Study	**Cross-sectional**	**Time-lagged**	**Quasi-experimental**
I. The utility of the VQ in chronic pain	✓	✓ [a]	
II. Perceived validation and criticism questionnaire	✓		
III. Exploring cognitive fusion and self-compassion in a moderated mediation model	✓		
IV. Mindfulness, self-compassion and depressive symptoms in chronic pain: the role of pain acceptance	✓		
V. Rumination and valued living in women with chronic pain: the link between mindfulness and depressive symptoms	✓		
VI. Obstacles to social safeness in women with chronic pain: the role of fears of compassion	✓		
VII. The unique contribution of compassionate and uncompassionate self-responding in chronic pain	✓		
VIII. Cognitive fusion and depressive symptoms: a growth curve modelling study over 12-months	✓ [b]	✓	
IX. Self-compassion and depressive symptoms in chronic pain (CP): a 1-year longitudinal study	✓ [b]	✓	
X. Acceptability and preliminary analysis of a Compassionate Acceptance and Commitment Therapy for chronic pain (COMP.ACT)		✓	✓

[a] Study I comprised a temporal stability analysis.

[b] Studies VIII and IX included cross-sectional associations between variables.

Studies that aimed to explore a pattern of associations between psychological processes and pain-related outcomes followed a cross-sectional design. It is extensively acknowledged that cross-sectional designs have the limitation of not allowing us to draw conclusions on causality. However, cross-sectional methods are acknowledged as valid ways of exploring relationships between variables, particularly when following a theory-driven model (e.g., Hayes, 2013). Indeed, we consider that establishing an *a priori* pattern of associations between variables in a certain moment lays the foundations for later on testing these hypothesized models in longitudinal and/or experimental designs. In fact, some of the associations between variables suggested by the cross-sectional studies were tested in time-lagged designs (studies VIII and IX). It should be noted that in order to avoid participants′ burden and/or drop-out due to extensively large protocols, decisions had to be made in terms of which previously hypothesized patterns of associations would be tested in a time-lagged design. The main criteria for that decision was the novelty of the underlying hypothesis, as well as the potentiality to contribute to chronic pain research. For that reason, we focused on *cognitive fusion*, not only because it is a fairly underexplored process in chronic pain, but also because, due to its language-related nature, it is a psychological processes underlying many other cognitive processes (e.g., rumination). We tested whether changes in depression were more strongly predicted by pain intensity, functional impairment or by being entangled with internal experiences (cognitive fusion). Additionally, we focused on *self-compassion*, given that it is a recently studied processes in chronic pain, theoretically hypothesized to be rooted in psychophysiological systems relevant in pain management/modulation (e.g., affiliative systems related to oxytonin, vasopressin, and overall parasympathetic activity). Particularly, we aimed to examine how being self-compassionate can moderate the impact of functional impairment on depression. Finally, the clinical intervention study (study X) followed a time-lagged (pre vs post-intervention) and quasi experimental design, given that random allocation was not possible. Although the "gold standard" labelling of Randomized Control Trials (RCT) have been disputed as a too "one-size-fits-all" approach (see Grossman & Mackenzie, 2005), it indeed allows to control for unknown and/or unmeasured differences between groups that could contribute to differences in results. However, during the eligibility screenings, it was clear that participants did not have the same schedule availability, so the research team decided to not allocate randomly, but rather according to schedule preference. Also, researcher blindness was not possible to ensure, given that due to human resources limitations, the same person conducted the eligibility and the program implementation in both conditions. However, participants were blind to the experimental conditions.

2.3.2. Sample

In order to conduct the empirical studies, several samples were collected, consisting of participants with chronic pain and from the general population. See Table 3 for an overview of samples of each empirical study. All samples were collected using a non-probabilistic convenience sampling procedure.

Table 3. Overview of samples in each empirical study.

Study	Population	*N*	Format	Gender
I	Chronic pain	231[a]	Online	Women
	General population	349	Paper and pencil	Women (78.8%); Men (21.2%)
	General population	169	Online	Women (65.7%); Men (34.3%)
II	Chronic pain	172	Online	Women
III	Chronic pain	231[a]	Online	Women
IV	Chronic pain	231[a]	Online	Women
V	Chronic pain	124[b]	Online	Women
VI	Chronic pain	107[c]	Online	Women
VII	Chronic pain	49[d]	Paper and pencil	Women
VIII	Chronic pain	86[e]	Online	Women
IX	Chronic pain	86[e]	Online	Women
X	Chronic pain	16[f]	Paper and pencil	Women

[a] sample of the first wave of the time-lagged study; [b] sample of the second wave of the time-lagged study; [c] sample of the third wave of the time-lagged study; [d] sample of eligible participants (screened) for the COMP.ACT study who sent the complete protocol; [e] sample of participants who completed the three waves of the time-lagged study; [f] sample of the COMP.ACT clinical study.

It should be noted that *a priori* inclusion criteria for the chronic pain samples recruited online was a) having a musculoskeletal chronic pain previously diagnosed by a health professional; b) age > 18 years; c) being able to read and write Portuguese; and exclusion criteria was pain due to malingnancy. These sample ended up being composed of all women due to the very low response rate from men, which were therefore excluded from analysis. The chronic pain sample collected for the clinical study (study X) had the same inclusion criteria, but in addition to excluding pain due to malignancy, the exclusion criteria were: a) severe clinical depression; b) psychosis; c) non-suicidal self-injury; d) suicide attempt(s) in the last 6 months; e) substance abuse. These were considered exclusion criteria, given that the COMP.ACT program, although potentially transdiagnostic, was not designed to tackle these clinical difficulties. The general population samples included those whose age > 18 years, and were able to read and write Portuguese. Please, see each empirical study for a more detailed description of samples.

2.3.3. Procedure

General procedures for collection of chronic pain samples had the following strategies 1) for the *chronic pain samples collected online*, the research team contacted several national chronic pain associations, invited them to collaborate by sharing the study and its protocol link with their associates and/or social media followers, and participants took part in the studies by clicking on the online protocol. The studies′ protocols were delivered in an online platform (Limesurvey) allocated to the server of the University of Coimbra. The inclusion and exclusion criteria was informed in the text that accompanied the study advertisement; 2) for the *chronic pain sample collected in the Anesthesiology Service of Centro Hospitalar e Universitário de Coimbra* (CHUC), the medical and nursing team invited patients who met inclusion criteria to participate in the study. Then, those who were interested were forward to a clinical psychologist from the research team who screened for eligibility (see *2.4.2 Sample*) through a semi-structured clinical interview adapted from the SCID-I; 3) for the *general population samples*, the online collection was conducted through email and social media sharing of the study protocol. The general population sample selected through paper and pencil format, was collected conveniently in the general population. For a more detailed description, see the procedure section of each empirical study.

2.3.4. Measures

The empirical studies were conducted through different batteries of protocols that included 1) sociodemographic data (e.g., age; marital status; occupation); 2) relevant medical information (medical speciality of whom performed the diagnosis; diagnoses; duration of pain; other chronic illnesses; medication); 3) self-report measures of psychological processes, psychopathological symptoms and pain-related outcomes. Table 4 depicts the self-report measures that were included in each study. A more detailed description of measures and their psychometric properties is provided in each empirical study.

Table 4. Overview of measures in each empirical study

Instrument	**Study**									
Pain-related outcomes	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**
Numeric Pain Rating Scale (NPRS)		✓	✓	✓		✓	✓	✓	✓	✓
Work and Social Adjustment Scale (WSAS)		✓				✓		✓	✓	
Pain Disability Index (PDI)							✓			✓
Affect and/or Psychopathological Symptoms										
Positive and Negative Affect Schedule (PANAS)		✓								
Depression, Anxiety and Stress Scale (DASS21)	✓		✓	✓	✓	✓	✓	✓	✓	✓
Quality of Life										
WHO-Quality of Life (WHOQOL-bref)	✓									
Psychological Processes										
Mindful Attention Awareness Scale (MAAS)	✓			✓	✓				✓	
Five Facets of Mindfulness Questionnaire (FFMQ)										✓
Self-Compassion Scale (SCS)							✓			✓
Self-Compassion Scale – Short Form (SCS-12)	✓		✓	✓		✓			✓	✓

Compassionate Engagement and Action Scales (CAAS)		✓							
Psychological Inflexibility in Pain Scale (PIPS)							✓		✓
Chronic Pain Acceptance Questionnaire (CPAQ-8)	✓			✓					
Cognitive Fusion Questionnaire (CFQ)	✓		✓					✓	
Acceptance and Action Questionnaire (AAQ-II)	✓								
Valued Living Questionnaire (VLQ)	✓								
Engaged Living Scale – Short Form (ELS-9)	✓								
Valuing Questionnaire (VQ)	✓				✓		✓		✓
Ruminative Response Scale –Short Version (RRS-10)					✓				
Fears of (Self)Compassion Scale (FCS)						✓			
Social Safeness and Pleasure Scale (SSPS)		✓				✓			
Perceived Validation and Criticism in Pain Questionnaire (PVCPQ)		✓							
Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT)									✓

2.3.5. Data Analyses

Different statistical strategies were followed in each study, according to their specific research aims. All descriptive analyses, correlational analyses, reliability analyses and hierarchical regression analyses were conducted using SPSS version 23 (SPSS Inc, Chicago, IL, USA). Therory-driven and previously hypothesized mediational models were tested using either SPSS macro PROCESS (Hayes, 2013) or Structural Equation Modeling (SEM) analyses using AMOS software version 23 (Arbuckle, 2014). The decision regarding when to use one or the other was based on mainly two criteria: 1) sample size (SEM requires a larger sample size) and/or 2) the conceptual model aimed to test. Specifically, the PROCESS macro has embedded a set of mediation, moderation and moderated mediation models that makes it easier to test the models. This is the reason behind the decision to use PROCESS in study III (the tested model was a moderated mediation), and AMOS in study IV (the tested model was a sequential mediation).

For time-lagged studies, two approaches were taken: 1) latent growth curve models (LGM) were performed to test the impact of cognitive fusion, pain intensity and functional impairment on changes in the trajectory of depressive symptoms through a 12-month period, using AMOS software; 2) a hierarchical linear regression to test the predictive and buffering impact of self-compassion on depressive symptoms 6- and 12-months later, while controlling for the effect of relevant processes and symptoms.

In the clinical study, to test whether the two conditions (COMP.ACT versus ACT-only) were statistically different, mixed ANOVAs within-group (time) and between-group (time x condition) were conducted (2x2). Mixed ANOVAs were also conducted to test differences between groups throughout the intervention (2x4), as well as to test whether changes throughout the implementation were coherent with the content delivered through the interventions. Additionally, the clinical meaningfulness of change was tested through Reliable and Significant Change analyses (Jacobson, Roberts, Berns, & McGlinchey, 1999). Finally, in order to examine acceptability and participants′ subjective impressions of COMP.ACT, qualitative analysis of 8 open-ended written questions at post-intervention was conducted using NVIVO 12. A more in-depth description of statistical analyses is described in each empirical study.

2.3.6. Ethics

Before proceeding with data collection, the current project received approval from the ethics committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra (CEDI 12Janeiro2017; CEDI 30Janeiro2020), as well as the Portuguese Data Protection Authority (reference number: 11863/ 2017). Also, the implementation of the current research project followed recommendations of national and international scientific boards: the Declaration of Helsinki (World Medical Association, 2013), the American Psychological Association (Fisher, 2012), and the Code of Ethics of the Order of the Portuguese Psychologists (2011 revised in 2016).

Before providing informed consent, all participants were informed of the aims of the study, as well as the target population. Also, the voluntary nature of the study was clearly stated in the information sheet/page of each study protocol. In the case of the clinical study (study X), participants were additionally informed that they could drop-out the study at any time, without providing justification, and this would not impact in any way the medical treatment nor relationship with physicians. The confidentiality of data was also guaranteed, with the written specification that only the principal investigator would have access to identifiable information (e.g., name), and that dissemination of results would be anonymized. Also in the case of the clinical study (study X), participants who met exclusion criteria were given feedback resulting from the screening. It was made clear that the screening was not able to provide a clinical diagnosis, but rather inform on psychopathological symptoms and/or difficulties. Participants excluded were provided with contact information/resources to seek specialized treatment.

Overall, dissemination of results followed principles of scientific integrity and responsibility, such as the use of non-stigmatizing language. Finally, social responsibility was one of the backbones of the current project, thus all materials developed (e.g., instruments, the COMP.ACT workbook) as well as the scientific outputs (e.g., the authors′ copies of all empirical studies) are available for free to researchers and clinicians, as well as the general lay community, in a logic of scientific transparency and open science.

2.4. The Development of COMP.ACT

Information on the content of COMP.ACT, as well as the process of developing the program, can be accessed in empirical study X. Overall, the program was based on the Psychological Flexibility Model (PFM) applied to chronic pain (e.g., Dahl & Lundgren, 2006; Vowles, Wetherell, & Sorrell, 2009), as well as compassion-based interventions (Gilbert, 2005; Neff & Germer, 2018). COMP.ACT was designed to have 8 group sessions, approximately 2h each, following the same structure, and accompanied with audio exercises, additional texts, and practical handouts (see the COMP.ACT workbook made available). Nonetheless, a few lines should be written regarding the development of the program.

Firstly, it should be noted that although based on transdiagnostic approaches, the COMP.ACT program was tailored to address the specific difficulties of individuals with chronic pain. For example, the role of mindfulness in ACT is coherently behaviorally-oriented, with the focus on promoting present-moment awareness and, thus, commitment to valued action. When we look into well-known ACT interventions/workbooks for chronic pain, mindfulness appears as a tool for acceptance, present moment awareness, and valued action (e.g., Dahl & Lundgren, 2006; Vowles, Wetherell, & Sorrell, 2009). In addition to these goals, mindfulness exercises in COMP.ACT, particularly body-scan, also focus on nonjugmentally observing the different components of pain (physical sensations, thoughts, feelings, emotions, etc). The rationale for putting an emphasis on body-focused awareness exercises was based on previous literature suggesting that body/interoceptive awareness is key to emotional regulation (e.g., Farb, Anderson, & Segal, 2012; Lutz et al., 2014; Price & Hooven, 2018), and that lack of body/sensory awareness result in increased fear and anxiety, which may take the form of ruminative thinking (e.g., Farb et al., 2015).

Also, when it comes to the (self)compassionate exercises, an emphasis was put on body-focused exercises accompanied by soothing rhythm breathing, rather than strictly imagery exercises. The decision to focus on the body was not only because the target population presented chronic pain, but also due to the fact that only two compassion-based sessions were part of the program. Instead of including general imagery exercises (e.g., safe space, or compassionate self), we chose to include more body-focused compassionate/soothing exercises (e.g., compassionate touch, or soften, soothe, allow) as these were assumed to be more clinically relevant in this target population. This decision was emboldened by literature on the physiology of compassion, particularly the the relationship between compassionate touch and opioid-related affiliative feelings, such as safeness and overall positive emotions (e.g., Ellingsen, Wessberg, Chelnokova, Olausson, Laeng, & Leknes, 2016). Also, exercises were adapted to better fit chronic pain difficulties (e.g., body awareness, body-scan instructions that include nonjudgmentally noticing different component of pain, addressing loving-kindness towards someone with chronic pain).

Finally, the development of the COMP.ACT program was careful in guaranteeing treatment integrity (TI) as much as possible. One limitation was that, due to human resources and time constraints, the intervention was not rated according to a coding system. However, an independent observer co-therapist, who was not involved in the intervention development, was present in all sessions of both conditions to ensure that the workbook was followed, thus providing an additional assurance that the intervention delivery was standardized between groups. Moreover, several aspects of the TI guidelines (Plumb & Vilardaga, 2010) were followed: a) integrity was thought as a crucial part of the study (for example, the therapists′ competence were ensured by previous training in ACT and compassion-based approaches, as well as supervision throughout the implementation); b) the COMP.ACT workbook was developed having in mind issues of integrity, by including therapist lines, tips, warnings and overall examples of ACT-consistent and ACT-inconsistent behavior (examples of the latter: challenging content rather than addressing function, engaging in cognitive restructuring, using mindfulness as relaxation, reinforcing avoidant change strategies); c) the intervention was developed and standardized in a workbook that followed clearly operationalized ACT and compassion-based critical processes of change.

2.5. An additional note on pilot testing COMP.ACT

It should be stressed out that a rigorous examination of the role of explicit (self)compassionate exercises in ACT for chronic pain would have been better accomplished through a dismantling study (e.g., Papa & Follette, 2015). The exercise of decomposing an intervention with multiple components into a three-arm dismatling study (e.g., arm 1: full COMP.ACT; arm 2: ACT-only components; arm 3: Compassion-only component) would indeed be able to provide a much more in-depth exploration of the role of each component, and of the 2 compassion-based sessions (i.e., the role of adding explicit compassion exercises). However, there are two reasons that guided our decision to not follow a strictly component design. One was a pragmatical reason, given that dismantling designs require a much larger sample in each condition in order to achieve the average magnitude of effect sizes found in studies that compare an active treatment versus a placebo (e.g., Lambert & Bergin, 1994). Also, there was a scientifically-based reason: our clinical study did not aim to test which of the components (the ACT components or the Compassion components) were more effective in chronic pain. Our interest was rather on the additive effect of explicit (self)compassion exercises in ACT for chronic pain. Also, component studies, such as dismantling studies, have the limitation of not considering the synergies between different components, i.e., that the efficacy might result not from the effect of each component alone, but from the interaction between all components (e.g., Bell, Marcus, & Goodlad, 2013). This seems to be particularly the case when we consider the potential overlap between the putative mechanisms of action in interventions based on mindfulness, acceptance and compassion. Another aspect that we should reflect on is the duration equivalence of both conditions. One could argue that the adding value of self-compassion should be tested by simply *adding* two session to an ACT intervention. This would inevitably create an imbalance in number of sessions in both conditions (for example, the ACT condition would have 6 session, and the COMP.ACT would have 8 sessions), which would raise valid questions regarding the interpretation of results, i.e., if results were a reflection of the effect of the additive (self)compassion component, or merely a result from having two additional sessions (regardless of its content). In order to control this limitation, we have decided to have the same amount of sessions in both conditions. For this to happen, the ACT-only condition had to have 2 sessions of Questions & Answers (Q&A) and mindfulness exercises. This compromising solution allowed us to have two conditions with the same number of sessions, but without the ACT-only condition having additional exercises that the COMP.ACT condition did not. Thus, our design seemed to be the best solution possible considering the antecipated small sample size and scientific goals of the study.

PART II - EMPIRICAL STUDIES

Chapter 3: Psychometric contributions: development and/or validation of process measures

Study I - The utility of the Valuing Questionnaire in Chronic Pain

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The utility of the Valuing Questionnaire in Chronic Pain

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Abstract

Existing measures of valued living present several limitations: 1) focus on values in life domains, 2) potentially overlap with satisfaction with life, or 3) do not measure obstacles to valued living. The Valuing Questionnaire (VQ) is a 10-item tool of valued living, able to measure Progress in and Obstructions to valued living. This study tests VQ´s measurement invariance in a sample of women with Chronic Pain (CP) (N=231) and from the general population (N=268), its temporal stability in CP (6-months) (N =117) and its incremental validity in a sample of men and women from the general population (N=169). Results confirmed the VQ´s two-factor structure, as well as its measurement invariance. Also, the VQ was temporally stable (6-months) in CP. Both factors (Progress and Obstruction) were significantly correlated in the expected directions with cognitive fusion, mindful awareness, self-compassion, depressive, anxiety and stress symptoms, and quality of life. VQ Obstruction showed incremental validity, as it significantly predicted depression, anxiety and stress symptoms above and beyond psychological inflexibility and other measures of valued living. The current study shows the VQ's applicability to CP, and provides additional empirical support for its convergent, concurrent, and incremental validity, as well as its temporal stability.

Key-words: Valuing Questionnaire; Acceptance and Commitment Therapy; Assessment; Values.

INTRODUCTION

Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) is an increasingly empirically validated psychological approach (see A-Tjak, Davis, Morina, Powers, Smits, & Emmelkamp, 2015; Atkins et al., 2017; Graham, Gouick, Krahé, & Gillanders, 2016) according to which psychological suffering results from the entanglement with internal experiences and from the unwillingness to have them, which in turn leads to avoidant behaviors and a decrease in engaging in valued-based actions (e.g. Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Thus, ACT´s overall therapeutic goal is to promote willingness to experience difficult internal events (e.g. thoughts, emotions, physical sensations) when doing so leads to engaging in behaviors that promote a meaningful and fulfilling life guided by personal values (e.g. Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013). Values are defined in ACT literature as ongoing, dynamic patterns of freely chosen, purposeful behavior, in which the predominant reinforcement for the behavior is inherent in engaging in the behavior itself (Wilson & Murrell, 2004). Unlike goals, values can never be achieved per se, though they guide action and permeate moment-by-moment behaviors, as well as intrinsically reinforce behavioral patterns congruent with those values (Wilson & Dufrene, 2009).

Promoting values-congruent actions has a central role in ACT (Wilson & Murrell, 2004), and some studies have suggested its specific benefits in psychological interventions. Although following a somewhat different conceptualization, studies suggest that affirming personal values reduces physiological stress (Creswell Welch, Taylor, Sherman, Gruenewald, & Mann, 2005) and increases school performance in minority groups (Cohen, Garcia, Apfel, & Master, 2006). To our knowledge, most empirical studies on values have been conducted in chronic pain patients (CP). Data suggest that values-based action is retrospectively associated with better emotional, physical, and social functioning (e.g. McCracken, 2013; McCracken & Vowles, 2014; McCracken & Yang, 2006), and prospectively (18.5 weeks) predicts functioning in CP patients seeking treatment (McCracken & Vowles, 2008). Additionally, changes in valued-based actions after an ACT intervention for CP was moderately associated with changes in depression and anxiety (Vowles & McCracken, 2008), including in a three-year follow-up period (Vowles, McCracken, & O´Brien, 2013)

The key role of values in ACT raises the necessity of developing a psychometrically robust and transdiagnostic measure of values. Although there have been meritorious efforts to develop sound measures of valued living, those present limitations that hinder their wide applicability in different settings, and some have argued a general lack of comprehensive psychometric analyses (Åkerblom, Perrin, Fischer, & McCracken, 2017). The Valued Living Questionnaire (VLQ; Wilson, Sandoz, Kitchens, & Roberts, 2010) presents ten life domains, which participants rate according to how important the value is, and how consistently they have lived towards that value. Following a similar design, in the Values Bull's Eye (Lundgren, Luoma, Dahl, Strosahl, & Melin, 2012) participants write a value associated with each of four life domains, and choose how well they have lived according to each value by marking in a “target” (the closer to “bull´s eye”, the more successfully they have lived in congruence with personal values in that life domain). Similarly, the Personal Values Questionnaire (PVQ; Ciarrochi, Fisher, & Lane, 2010) requires participants to write a brief statement of their values in each of nine life domains, and assesses motivational consequences, importance, success, commitment to act accordingly and willingness to make progress in living out that value. Although these measures are clinically useful, they present the limitation of either not providing a global score of overall valued living (if each life domain is considered separately), or to provide one that is not a rigorous depiction of overall valued living. For example, it does not account for developmental stages in which although a value associated to a life domain – e.g. parenthood – is regarded as important, one is nonetheless unable to act consistently at that moment in life. Additionally, one might engage in valued living in one life domain, but not in other, and thus the total score does not necessarily present an accurate depiction of overall valued living.

Following a similar design, the Chronic Pain Values Inventory (CPVI; McCracken & Yang, 2006) was developed to measure valued living in six life domains (in each, participants rate their values´ importance and how successfully they have been living accordingly to those values), with an additional introduction that focusses on CP. Although the items´ content is not CP-specific, the introduction instructs participants to focus on pain-related barriers to valued living, which makes CPVI a content-specific measure that is less applicable to other populations and clinical settings.

Perhaps the closest measure of overall valued living (not population-specific nor divided by life domains) is the Engaged Living Scale (ELS; Trompetter, Klooster, Schreurs, Fledderus, Westerhof, & Bohlmeijer, 2013). ELS is a 16-item measure, recently proposed to be psychometrically sound in its shorter 9-item version (Trindade et al., 2015). It assesses two domains: valued living and life fulfilment. Although this is a robust measure of valued living, its high correlation (r = .74) with satisfaction with life (Graham, Gouick, Ferreira, & Gillanders, 2016) suggests that ELS might be measuring a construct more related to life satisfaction than valued-living processes. Indeed, although ELS significantly predicts psychopathological symptoms and well-being above and beyond other ACT processes (Trompetter et al., 2013), its incremental validity over other valued living measures remains unexplored. Additionally, ELS is a positively-oriented measure, which limits the possibility of conducting accurate studies on the impact of experiencing obstacles to valued living.

The Valuing Questionnaire (VQ; Smout, Davies, Burns, & Christie, 2014) is a 10-item instrument developed to assess overall valued living, with the advantage of grasping the nuances of valued living, e.g. its evolving moment-to-moment experience ("I continued to get better at being the kind of person I want to be"), engagement with valued actions despite internal experiences ("I worked toward my goals even if I didn't feel motivated to") and a sense of meaningfulness ("I was proud about how I lived my life"). Additionally, besides tapping into *progress* in valued living, the VQ measures explicit ACT-congruent *obstacles* to valued living (e.g. "Difficult thoughts, feelings or memories got in the way of what I really wanted to do", "I was basically on "auto-pilot" most of the time"). Although the VQ has shown to be psychometrically valid (Smout et al., 2014), a number of features are yet to be established: 1) its incremental validity compared to other measures of valued living (e.g. ELS); 2) its temporal stability; 3) its association with other ACT core processes (e.g. cognitive fusion) and ACT-related processes (self-compassion) (Yadavaia, Hayes, & Vilardaga, 2014; Luoma & Platt, 2015) 4) and its psychometric performance across a broader range of samples.

The current study aims to expand the knowledge on the validity of VQ. Specifically, this study aims to 1) validate the VQ in a sample of CP patients; 2) test its measurement invariance between a CP sample and a sample from the general population; 3) to explore its incremental validity; 4) test its temporal stability in a 6-month period.

METHOD

Participants

The current study was conducted in three independent samples: a sample composed of women suffering from CP recruited online (Sample 1; *N* = 231), a sample of men and women from the general population (Sample 2; *N* = 340), and a sample of men and women from the general population recruited online exclusively for testing incremental validity (Sample 3; *N* = 169). Additionally, in order to have gender-matched samples to perform confirmatory and multi-group factor analyses, a subsample of Sample 2 composed of women only was used (subsample 2; *N* = 268). Finally, in order to assess temporal stability, a subsample of Sample 1 composed of participants who completed a 6-month second assessment was used (subsample 1; *N* = 117). This is part of a larger project that aims to prospectively study the temporal association between several psychological processes in women with chronic pain. See Table 1 for more information on samples´ characterization, analyses and measures.

Inclusion criteria for CP (Sample 1): a) having constant or sporadic pain for more than three months; b) being 18 years of age or older; c) being able to read and write Portuguese; d) having access to an online device in order to complete the battery of questionnaires. Inclusion criteria for the general population (Sample 2 and 3): 18 years of age or older; b) able to read and write Portuguese.

Procedure

Sample 1 was collected through an online protocol advertised in three nationwide associations for people with CP. After agreeing to collaborate with the study, the directors of these associations advertised our study through the associations´ mailing lists and contacts, by providing the study link. The protocol was accessed by 479 participants, of which 246 completed the battery of questionnaires (51%). Fifteen participants were excluded: nine men and six Brazilian women, in order to have a gender and nationality balanced sample. Information regarding the aims of the study, the target population, the voluntary nature of participation and the confidentiality of data was provided, after which participants gave informed consent. Data was collected between February and April of 2017.

Table 1.
Sample, sample size, characterization, analyses and instruments

Sample	N	Characterization	Analyses	Instruments
Sample 1	231	Women with CP; mean age M = 48.51 (SD = 10.89); the majority were married (n = 150; 64.9%), with a bachelor´s degree (n = 88; 38.1%) or high school certificate (n = 73; 31.6%).	CFA, Multi-group & Reliability	VQ
Subsample 2	268	Women from Sample 2; mean age M = 24.87 (SD = 11.00); the majority were single (n = 227; 84.7%) with a high school certificate (n = 185; 69.0%).		
Sample 2	340	Women (n = 268; 78.8%) and men (n = 72; 21.2%) from the general population; mean age M = 26.30 (SD = 11.79), the majority were single (n = 274; 80.8%) and had a high school certificate (n = 217; 63.8%).	Convergent validity	CFQ, MAAS, VQ, SCS, DASS-21, WHOQOL
Subsample 1	117	Participants from Sample 1 who completed a second assessment moment (6-months); M = 47.79 (SD = 10.45); the majority were married (n = 81; 69.2%) and had a bachelor´s degree (n = 50; 42.7%) or high school certificate (n = 36; 30.8%).	Temporal stability & Correlations over time	VQ, DASS-21, CFQ, CPAQ, MAAS, SCS
Sample 3	169	Women (n = 111; 65.7%) and men (n = 58; 34.3%) from the general population; mean age M = 32.76 (SD = 6.77), the majority were single (n = 98; 58.0%) and had a master´s (n = 79; 46.7%) or a bachelor´s degree (n = 32; 18.9%). .	Incremental & Concurrent validities	AAQ-II, VQ, VLQ, ELS, DASS-21

Note. CP = Chronic Pain; CFA = Confirmatory Factor Analysis; VQ = Valuing Questionnaire; CFQ = Cognitive Fusion Questionnaire; CPAQ = Chronic Pain Acceptance Questionnaire; MAAS = Mindful Attention Awareness Scale; SCS = Self Compassion Scale; DASS-21 = Depression, Anxiety, Stress Scale; AAQ-II = Acceptance and Action Questionnaire; VLQ = Valued Living Questionnaire; ELS = Engaged Living Scale; WHOQOL = World Health Organization Quality of Life.

Sample 2 was a mixed convenience sample from the general population that includes students of the university and employees of local companies (one textile factory and one software company). Company managers were contacted and authorized two graduate students to come to the companies' facilities. Informed consents were given and participants responded in the workplace. Recruitment was between October 2016 and May 2017.

Sample 3 was composed of participants from the general population, collected online via snowball sampling, through facebook of colleagues and acquaintances who forward the study link to their contacts. From the 204 participants who accessed the online protocol, 169 completed the battery of questionnaires, from September 2017 to November 2017.

The current study was conducted after the approval from the Ethics Committee of the Faculty of Psychology and Educational Sciences of University of Coimbra, Portugal (January 12th 2017). The current study is part of a larger one that aims to explore the role of several psychological processes in the etiology of psychopathological symptoms in individuals with CP.

Translation of VQ into Portuguese

The translation process was conducted according to established guidelines (World Health Organization, 2017). The first author, fluent in English and Portuguese (S.C.) translated VQ into Portuguese. Then, a colleague not involved in the study back-translated the items into English. A co-author of the current study and ACT expert (P.C.) assessed the accuracy of the items, and changes were made accordingly. The translated instrument was then tested in college students. No changes were carried out afterwards. The final version was included in the study protocol.

Measures

In addition to VQ (Smout et al., 2014), the psychometric analyses and validation was conducted with a battery of the following questionnaires, all translated and validated in the Portuguese population:

Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014; Pinto-Gouveia, Dinis, Gregório, & Pinto, 2018) is a 7-item questionnaire that assesses the degree to which participants are entangled with and dominated by thoughts and beliefs (i.e. cognitive fusion), using a 7-point Likert-like scale (1= "never true"; 7 "always true"). In the current study, CFQ showed excellent internal consistency (α = .94).

Chronic Pain Acceptance Questionnaire – 8 (CPAQ; Fish, McGruire, Hogan, Morrison, Stweart, 2010) is an 8-items instrument that measures pain willingness and activity engagement, and provides us a global measure of pain acceptance, assessed on a 7-point scale (0 = never true; 6 = always true). In the current study, CPAQ had an acceptable internal consistency (α = .69).

Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003; Gregório & Pinto-Gouveia, 2013) is a 15-item measure of attention and awareness of present moment, using a 6-point Likert scale (1 = almost always; 6 = almost never). Higher scores mean higher mindful awareness. The current study found good values of Chronbach alpha (α = .88).

Self-Compassion Scale-short form (SCS; Raes, Pommier, Neff, & Van Gucht, 2013; Castilho, Pinto-Gouveia, & Duarte, 2015) is a 12-item version of the longer 24-item SCS (Neff, 2003) that measures self-compassion on a 5-point Likert self-report scale (1 = almost never; to 5 = almost always). New data suggests that SCS can be used as a two-factor scale: one assessing a *self-compassionate* attitude (a composite of self-kindness, common humanity and mindfulness) and one measuring a *self-critical* attitude (that results from the sum of self-judgment, isolation and over-identification) (e.g. López et al., 2015; Costa, Marôco, Pinto-Gouveia, Ferreira, & Castilho, 2016). The current study followed this factor structure, and is only focused on the self-compassion factor, which will be used throughout this study as self-compassion. The current study found acceptable internal consistency (α = .76).

Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011; Pinto-Gouveia, Gregório, Dinis & Xavier, 2012) is a 7-item measure of psychological inflexibility, i.e., “the rigid dominance of psychological reactions over chosen values and contingencies in guiding action” (Bond et al. 2011, p. 678). AAQ-II uses a 7-point scale to assess psychological inflexibility, in which higher scores mean higher psychological inflexibility. In the current study the AAQ-II had acceptable internal consistency (α = .76).

Valued Living Questionnaire (VLQ; Wilson et al., 2010) is a 2-part (10 life domains each) measure of valued living assessed on a 10-point scale. The first part measures how important each life domain is, and the second part assesses how consistently a person has acted towards each domain in the last week. The current study found acceptable internal consistency (Importance: α = .76; Consistency: α = .78).

Engaged Living Scale – short form (ELS; Trompetter et al., 2013; Trindade et al., 2015) is a 9-item instrument that measures engagement in valued living on a 5-point Likert scale (1 = completely disagree; 5 = completely agree). It contains two dimensions: valued living and life fulfillment. The current study found internal consistencies of α = .71 for valued living, and α = .87 for life fulfillment.

World Health Organization Quality of Life – Bref (WHOQOL; Harper & Power, 1998; Vaz Serra et al., 2006) is a well-known 26-item measure of quality of life that assesses 4 dimensions of quality of life (physical, psychological, social relations, environment). The current study found good or acceptable internal consistencies for all subscales (physical: α = .74; psychological: α = .83; social relations: α = .67; environment: α = .82).

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995; Pais-Ribeiro, Honrado, & Leal, 2004) is a widely used 21-item self-report measure of depression, anxiety and stress, that uses a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time). The current study found good internal consistencies in all samples used (samples 1, 2 and 3) for all subscales (Depression: from α = .85 to α = .93; Anxiety: from α = .84 to α = .86; Stress: from α = .89 to α = .92)

Data analysis

All statistical analyses were conducted using SPSS statistics software (IBM corp., 2011) and in AMOS software Arbuckle, 2006).

In order to examine the adequacy of data, preliminary data analyses were conducted (Skewness and Kurtosis; Multicollinearity; Mahalanobis distance statistic for outlier analysis).

Confirmatory factor analysis was then conducted in a total sample composed of women with CP (Sample 1) and women from the general population (Subsample 2), with Maximum Likelihood (ML) as the estimation method (Brown, 2006; Iacobucci, 2010; Kline, 2005; Schermelleh-Engel, Moosbrugger, & Müller, 2003). Following recommendations by Brown (2006) and by Kline (2005) model fit was assessed in accordance to several goodness-of-fit indices and respective cut-off recommendations: Chi-Square (χ2), Normed Chi-Square (χ2/d.f.), Comparative Fit Index (CFI ≥ .90, acceptable, and ≥ .95, desirable; Hu & Bentler, 1999, Tucker-Lewis Index (TLI ≥ .90, acceptable, and ≥ .95, desirable; Hu & Bentler, 1999), Goodness of Fit Index (GFI ≥ .90, good, and ≥ .95, desirable; Jöreskog & Sörbom, 1996), Root Mean Square Error of Approximation (RMSEA ≤ .05, good fit; ≤ .08, acceptable fit; ≥ .10, poor fit; Brown, 2006; Kline, 2005) using a 90% confidence interval. Local model fit was assessed through items´ standardized factor loadings (λ) and individual reliability (R^2), where $\lambda \geq .50$ can be interpreted as the model having factorial validity, and $R^2 \geq .25$ as the items having internal reliability (Hair, Anderson, Tatham, & Black, 1998).

Reliability was assessed through Cronbach's alphas, where $\alpha > .70$ were considered acceptable (Field, 2013), and considering item-total correlations >.50 (Nunnally, 1978; Tabachnick & Fidell, 2007). Additionally, composite reliability and average variance extracted (AVE) were estimated. Acceptable values of reliability were AVE ≥.50 and composite reliability ≥.70 (Hair et al., 1998).

Measurement invariance of VQ was assessed through a multi-group factor analysis, in which the factor structure invariance of VQ between both samples (Sample 1 and Subsample 2) was assessed by comparing the unconstrained model (with free structural parameter coefficients) and the equality constrained model (with parameters equally constrained across groups). Chi-square difference test was used to assess difference between groups (Byrne, 2010).

Convergent validity analyses (Sample 2) were conducted through correlation analyses between VQ and other related constructs, and concurrent validity analyses (Sample 3) were conducted by correlating VQ with other measures of the same construct (Cohen, Cohen, West, & Aiken, 2003).

Temporal stability of VQ was conducted in a subset of women with CP who responded to a second assessment moment (6-months after first assessment) (Subsample 1). Temporal stability was assessed through t-test analyses for paired samples, which compared scores in first and second moments of assessment. Additionally, Pearson´s correlations were conducted in order to assess the significance of association between the two assessment moments, and these associations were also explored though partial correlations in which changes in depression, anxiety and stress were controlled for. Also, we conducted bivariate correlation analyses to explore associations between changes in VQ subscales, as well and between VQ subscales and variables in study.

Incremental validity was assessed in an independent sample from the general population (Sample 3), by conducting hierarchical regressions models in which depressive, anxiety and stress symptoms are predicted by progressively adding other predictors in the model: 1) AAQ-II; 2) VLQ; 3) ELS; 4) VQ. This allows the testing of the additional variance explained by VQ in the model (Haynes & Lench, 2003).

RESULTS

Preliminary Data Analyses

Preliminary analysis showed acceptable skewness and kurtosis values ($SK < |3|$ and $Ku < |8\text{-}10|$) and $VIF < 5$ (Kline, 2005), thus suggesting normal distribution. Although the Mahalanobis distance statistic (D^2) indicated the presence of eleven multivariate outliers, no univariate outliers were detected in Sample 1. Additionally, Sample 2 had three univariate outliers. Two univariate outliers were found in Sample 3. We carried out the analyses without the outliers, and there were no significant changes in results. Thus, the decision to retain outliers was based on the assumption that maintaining outliers allows for data to be more likely representative of the variability of the population under study (Kline, 2005; Tabachnick & Fidell, 2007).

Confirmatory Factor Analysis

Results from CFA confirmed the two-factor structure of VQ. The model (see Figure 1) showed a good fit to the data ($\chi2(34) = 107.724$; $p<0.001$; $\chi2/df = 3.168$; GFI = .958; CFI = .965; TLI = .953; RMSEA = .066 [90%CI .052;.080], $p = .029$).

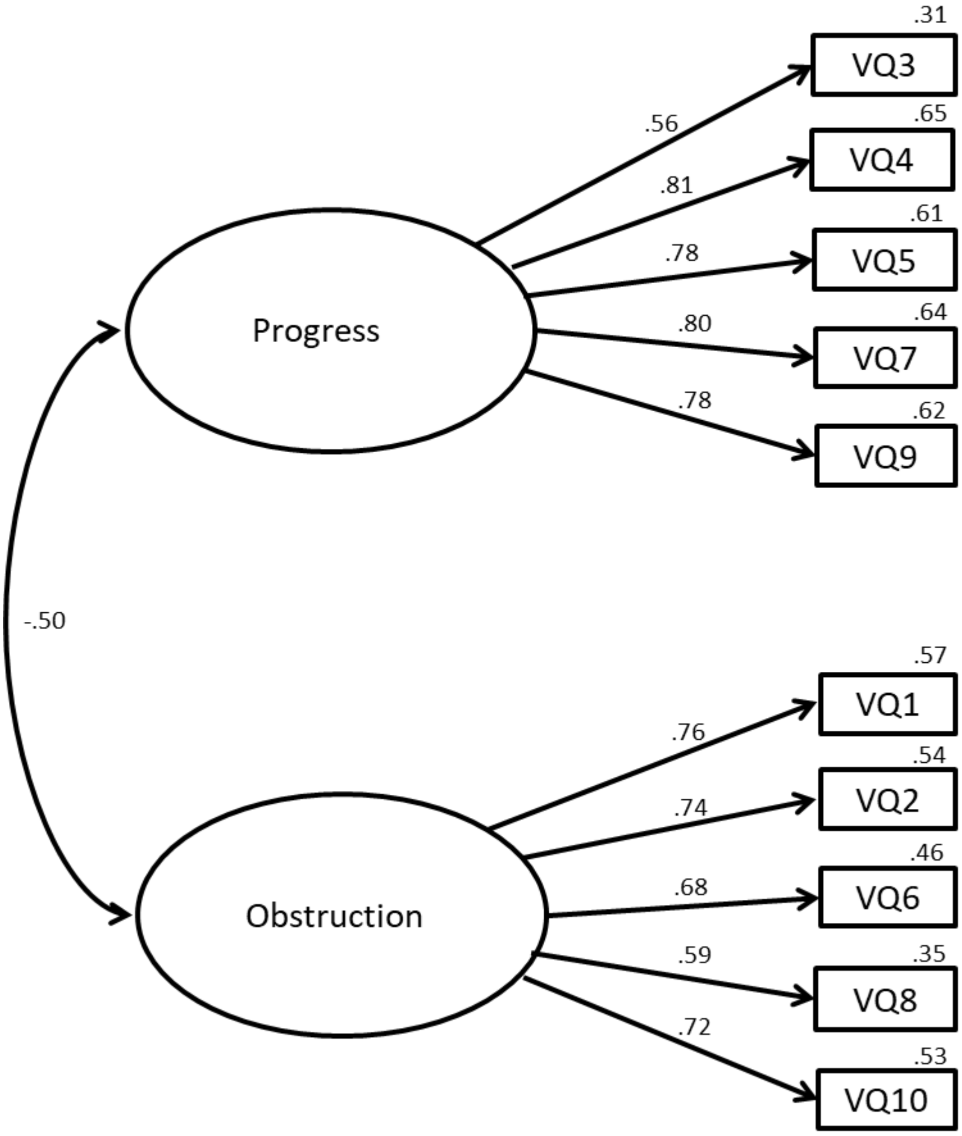

Fig. 1. Confirmatory Factor Analysis of the two-factor of VQ (*N* = 499). Standardized coefficients are shown; all paths are statistically significant (*p* < .001).

It is worth mentioning that although chi-square remained statistically significant, chi-square is sensitive to sample size, and tends to be significant in large samples (Schermelleh-Engel, Moosbrugger, & Müller, 2003). All items presented good local model fit, where standardized factor loadings were statistically significant (p < .001), ranging from λ = .56 (item 3) to λ = .81 (item 4). Also, squared multiple correlations ranged from $R^2 = .31$ (item 3) to $R^2 = .65$ (item 4). As expected, both factors were moderately and negatively correlated ($r = -.50$).

Reliability Analyses

Both factors of VQ showed good composite reliability (VQ-Progress = .86; VQ-Obstruction = .89), and average variance extracted (VQ-Progress = .69; VQ-Obstruction = .62). This suggests that items do reflect the latent constructs.

Additionally, results from internal consistency analyses are depicted in Table 2.

Table 2

Means (M), standard deviations (SD), corrected item-total correlations, ordinal Cronbach's alpha and ordinal Cronbach's alpha if item deleted for Valuing Questionnaire (VQ) and its dimensions (N = 499)

Items	***M***	***SD***	**Corrected item-total *r***	**Cronbach's alpha**
VQ-Progress				**.86**
3. worked toward my goals even if I didn't feel motivated to	4.01	1.42	.53	.87
4. I was proud about how I lived my life	4.03	1.54	.73	.82
5. I made progress in the areas of my life I care most about	3.86	1.54	.71	.83
7. I continued to get better at being the kind of person I want to be	4.11	1.47	.72	.83
9. I felt like I had a purpose in life	4.10	1.61	.72	.82
VQ-Obstruction				**.83**
1. I spent a lot of time thinking about the past or future, rather than being engaged in activities that mattered to me	2.84	1.87	.68	.77
2. I was basically on "auto-pilot" most of the time	2.35	1.75	.65	.78
6. Difficult thoughts, feelings or memories got in the way of what I really wanted to do	3.20	1.81	.61	.80
8. When things didn't go according to plan, I gave up easily	1.83	1.61	.53	.82
10. It seemed like I was just "going through the motions" rather than focusing on what was important to me	2.36	1.79	.64	.79

Results from corrected item-total correlations and Chronbach´s alpha if item deleted showed that all items had item-total correlations above .30. Moreover, all items significantly contributed to the internal consistency of its factor, with the exception of item 3. Nevertheless, it was decided to maintain this item as it presents good local model fit.

Multi-group Factor Analysis

To test measurement invariance of VQ between a sample of CP patients (Sample 1) and a general population sample (Subsample 2), a multi-group analysis was conducted. Measurement invariance is corroborated by comparing the unconstrained model with a constrain model in which parameters are equally constrained across groups (Byrne, 2010). The model presented good model fit for both groups ($\chi2(68) =155.405$; $p<0.001$; $\chi2/df = 2.285$; GFI = .941; CFI = .956; TLI = .942; RMSEA = .051 [90%CI .040;.061], $p = .431$). Moreover, the measurement invariance across groups for measurement weights (equal factor loadings) was also confirmed ($\chi2(8) = 6.019$, $p = .645$).

Correlation analysis

Results from correlation analysis showed VQ-obstruction and VQ-Progress to be significantly correlated (and in the expected directions) with all variables in study (see Table 3).

Table 3.

Pearson product-moment correlation coefficients between study's variables by sample.

Measures	VQ Progress	VQ Obstruction
Convergent validity (Sample 2*; N* = 340)		
VQ Obstruction	-.44***	-
CFQ	-.37***	.65***
MAAS	.29***	-.43***
SCS	.45***	-.36***
DASS-21 Depression	-.44***	.62***
DASS-21 Anxiety	-.26***	.49***
DASS-21 Stress	-.27***	.59***
WHOQOL – Physical health	.45***	-.48***
WHOQOL – Psychological health	.64***	-.61***
WHOQOL – Social relationships	.42***	-.39***
WHOQOL – Environment	.38***	-.33***
Concurrent validity (Sample 3; *N* = 169)		
AAQ-II	-.480***	.626***
VLQ - Importance	.31***	-.06
VLQ - Consistency	.41***	-.31***
ELS – Valued Living	.59***	-.54***
ELS – Life Fulfillment	.62***	-.57***

Note. *** p < .001

VQ = Valuing Questionnaire; CFQ = Cognitive Fusion Questionnaire; MAAS = Mindfulness Attention Awareness Questionnaire; SCS = Self Compassion Scale; AAQ-II = Acceptance and Action Questionnaire; DASS-21 = Depression, Anxiety, Stress Scale; WHOQOL = World Health Organization Quality of Life; VLQ = Valued Living Questionnaire; ELS = Engaged Living Scale.

VQ-Obstruction was positively correlated with cognitive fusion, depression, anxiety and stress, and negatively associated with mindful awareness, self-compassion and quality of life (all subscales). Conversely, VQ-Progress was positive and significantly correlated with mindful awareness, self-compassion and quality of life (all subscales), and negatively correlated with cognitive fusion, depression, anxiety and stress. Worth noting is that the highest magnitude of correlation with VQ-Obstruction was cognitive fusion, while with VQ-Progress was psychological health quality of life. Finally, VQ-Obstruction and VQ-Progress were negative and significantly correlated.

Also, VQ-Obstruction was negatively correlated with other measures of values (VLQ-consistency, ELS-valued living, ELS-life fulfilment), which VQ-progress was positively correlated with. Of note is that VQ-Obstruction was not significantly associated with the importance attributed to a value in a life domain (VLQ-importance).

Temporal stability and associations between changes over a 6-month period

Temporal stability analysis was conducted in a sample of participants with CP (Subsample 1; $N = 117$) who completed the same battery after a 6-month interval (50.65% retention). Results from correlation analyses showed positive and significant associations between the two assessment moments of the VQ-Obstruction ($r = .62$, $p < .001$) and the VQ-Progress ($r = .52$, $p < .001$). These results remained significant even when simultaneously controlling for changes in depression, anxiety and stress assessed over the same period: VQ-Obstruction ($r = .64$, $p < .001$) and the VQ-Progress ($r = .54$, $p < .001$). Additionally, t-tests (paired samples) were conducted and did not show differences between first and second assessments for VQ-Obstruction ($t_{(116)} = .486$, $p = .628$, *ns*) and VQ-Progress ($t_{(116)} = 1.113$, $p = .268$, *ns*).

Correlation analyses showed that, in a 6-month period, changes in VQ-Progress were not significantly correlated with changes in VQ-Obstacles ($r = -.062$, $p = .482$).

Changes in VQ-Progress were significantly associated with changes in acceptance of pain (*r* = .267, *p* = .002) and self-compassion (*r* = .218, *p* = .012), but not with changes in mindful awareness (*r* = .072, *p* = .409), cognitive fusion (*r* = -.162, *p* = .062), depression (*r* = -.156, *p* = .073), anxiety (*r* = .016, *p* = .858) and stress (*r* = -.095, *p* = .279). Changes in VQ-Obstruction were significantly correlated with changes in cognitive fusion (*r* = .291, *p* = .001), acceptance of pain (*r* = -.118, *p* = .038), mindful awareness (*r* = -.208, *p* = .016), depression (*r* = .290, *p* = .001) and stress (*r* = .223, *p* = .10), but not with changes in self-compassion (*r* = .044, *p* = .612) and anxiety (*r* = .137, *p* = .117).

Incremental Validity

Hierarchical regressions were conducted in a sample from the general population (Sample 3; *N* = 169) in order to test the incremental validity of VQ. Depression, anxiety and stress subscales of DASS-21 were predicted by progressively adding to the model predictors as follows: Step 1) AAQ-II; Step 2) VLQ-Importance and VLQ-Consistency; Step 3) ELS-Valued living and ELS-Life fulfilment; Step 4) VQ-Obstruction and VQ-Progress (see results in Table 4).

Table 4. Hierarchical multiple regression: incremental validity analyses prediction of depression, anxiety and stress (Sample 3; N = 169).

	Depression			Anxiety			Stress		
Predictor	β	t	ΔR^2	β	t	ΔR^2	β	t	ΔR^2
Step 1									
AAQ-II	.63***	10.53	.40***	.41***	5.82	.17***	.61***	9.82	.37***
Step 2									
AAQ-II	.57***	9.42		.41***	5.58		.56***	8.91	
VLQ - Importance	.19*	3.04	.06***	.21*	2.76	.04*	.21**	3.18	.05**
VLQ - Consistency	-.26***	-3.97		-.09	-1.15		-.22**	-3.23	
Step 3									
AAQ-II	.43***	6.55		.40***	4.69		.53***	7.33	
VLQ - Importance	.17**	2.82		.20*	2.54		.19**	2.91	
VLQ - Consistency	-.15*	-2.26	.07***	-.08	-.93	.01	-.19**	-2.64	.02
ELS – Valued Living	.02	.31		.12	1.28		.11	1.36	
ELS – Life Fulfillment	-.34***	-4.47		-.14	-1.42		-.18*	-2.09	
Step 4									
AAQ-II	.33***	4.61		.35***	3.78		.43***	5.56	
VLQ - Importance	.17**	2.81		.16	1.98		.15*	2.25	
VLQ - Consistency	-.15*	-2.23		-.08	-.95		-.19*	-2.69	
ELS – Valued Living	.09	1.20	.03***	.12	1.18	.02	.14	1.65	.04**
ELS – Life Fulfillment	-.26*	-3.22		-.16	-1.51		-.16	-1.80	
VQ - Progress	-.11	-1.46		.15	1.57		.12	1.49	
VQ - Obstruction	.22***	2.93		.16	1.62		.27**	3.36	
Total R^2			.56***			.24***			.47***

Note. *** p< .001, ** p < .005, * p <.05; AAQ-II = Acceptance and Action Questionnaire; VLQ = Valued Living Questionnaire; ELS = Engaged Living Scale; VQ = Valuing Questionnaire.

AAQ-II = Acceptance and Action Questionnaire; VLQ = Valued Living Questionnaire; ELS = Engaged Living Scale; VQ = Valuing Questionnaire.

Results show that the VQ accounted for unique significant variance explained by the model (3% of depression and 4% of stress), beyond psychological (in)flexibility (AAQ-II) and other measures of values (VLQ and ELS), except anxiety. Specifically regarding stress, when VQ is added to the model, ELS-Life fulfilment does not contribute significantly to the model (β = -.16, p = .073). These results suggest that VQ, particularly the Obstruction subscale, is not merely measuring psychological (in)flexibility, and it is not redundant to other measures of values-related constructs as it adds predictive variance of depression and stress.

DISCUSSION

Promoting the engagement in activities that are meaningful and values-oriented despite feeling pain is a central feature of acceptance-based approaches to CP (McCracken, 2013), and is associated with better mental and physical health indicators (McCracken & Yang, 2006; McCracken & Vowles, 2008; Vowles & McCracken, 2008; Vowles, McCracken, O´Brien, 2013). Thus, the development of robust measures of valued living that are able to assess both progress in valued living as well as experiencing obstacles to doing so, is a crucial endeavor to CP clinical work and research. The VQ (Smout et al., 2014) was developed to overcome the limitations of measures of valued living that depend on values that are specific to life domains, rather than overall valued living. In addition to being psychometrically robust, VQ is the first instrument of valued living that includes items that seem to efficiently tap into the internal experiences (e.g. thoughts, emotions, physical sensations) that potentially produce obstructions to valued living, which are crucial to include in research on values and committed action in CP (McCracken & Vowles, 2014). Nevertheless, to our knowledge VQ´s psychometric properties and factor structure have never been tested in participants with CP.

Furthermore, no studies have compared its factor structure between CP samples and a sample from the general population. Additionally, there is a lack of knowledge on its temporal stability, as well as its association with central contextual-behavioral related constructs (e.g. cognitive fusion, self-compassion). Finally, although it is known that VQ is not redundant when compared to measures of valued living structured in life-domains, there is no data comparing VQ to another measure of overall valued living (i.e. ELS). The current study presented data that tested each of these measurement properties.

Results from confirmatory factor analysis showed a good model fit, which confirmed the two-factor structure found in the original development study (Smout et al., 2014). In addition, the VQ was found to be internally consistent at the subscale level. VQ provides the advantage of clearly measuring two different routes of underlying processes: one related to psychologically flexible processes (Progress) and other that involves psychologically inflexible processes (Obstruction). This overcomes the potential inaccurate scores of measures that differentiate values in life-domains and then use composites that do not necessarily reflect overall valued living (Åkerblom et al., 2017; Smout et al., 2014).

Also, results from multi-group factor analysis showed that VQ´s structure presents good model fit in a sample of women with CP, and in the general population, and that its structure is invariant across groups. These results suggest that the use of VQ in comparative studies that explore values and valued living in CP and the general population samples is adequate.

Results from correlation analyses showed a pattern of associations in line with previous literature (Hayes et al., 2012; Hayes et al., 2013). As expected, Progress was positively associated with all domains of quality of life (WHOQOL) and with mindful awareness (MAAS) and self-compassion (SCS), while negatively associated with cognitive fusion (CFQ) and psychopathological symptoms (depression, anxiety and stress; DASS-21). Also in line with predictions, these associations were inverse for Obstruction. It is worth noting that Obstruction presented a stronger (positive) association with cognitive fusion than Progress (negatively) did. This seems to suggest that the Obstruction scale is able to tap into psychological processes that result in obstacles to engaging in values-guided actions, such as being entangled with internal experiences. Interestingly, MAAS was more strongly (negatively) related to Obstruction than (positively) with Progress, which seems to suggest that present moment awareness is more closely associated with reducing obstacles, than it is in making progress towards values. On the other hand, SCS is more strongly related to Progress than with Obstruction, which seems to indicate that engaging in a kind and warm self-to-self relating is significantly involved in valued living.

Adding to the original study (Smout et al., 2014), results suggest that VQ is a temporally stable measure in CP, at least up to a six-month interval. Additionally, by conducting partial correlation analyses while controlling for changes in symptoms of depression, anxiety and stress, results suggested that the significant associations between the two VQ assessment moments are independent from changes in depressive, anxiety and stress symptoms in the same period. Interestingly, changes in Progress were significantly related to self-compassion, but changes in Obstruction were not. This is an interesting result, as it seems to suggest that while establishing a kind and warm self-to-self relating is an important factor in moving towards valued-based actions, it seems to not be particularly relevant to experiencing less obstructions to valued living. This seems to corroborate the notion that self-compassion, more than an internal emotional experience, is a motivational process (Gilbert et al., 2017) that might be relevant for progress in engaging in valued-based actions.

Also, results showed that VQ adds unique variance in a model predicting psychopathological symptoms: VQ (Obstruction, but not Progress) significantly predicts depressive and stress symptoms (but not anxiety) above and beyond psychological inflexibility (AAQ-II) and other measures of valued living (VLQ and ELS). This is a particularly hard test for the VQ. For example, in predicting depression, when the VQ was added to the equation, 50% of the variance in depression was already explained, leaving little room for the VQ to capture further variance. The fact that it did add small but significant proportions of variance explained is evidence of its relevance to future predictive and modelling studies.

The current study should not be interpreted without considering its limitations. The current study aimed to explore VQ´s properties in CP, thus the generalization of these results to other clinical and medical conditions is unwarranted. Additionally, although both the general population samples presented diverse levels of education, the majority had at least a high school certificate, which suggests the need for replicating these findings in samples with less education. Furthermore, the current study did not test the VQ’s sensitivity to values focused intervention, an important measurement property that is yet to be demonstrated. Also, more studies on the incremental validity of VQ are needed, particularly regarding the prediction of positive outcomes (e.g. quality of life). It is not surprising that VQ-Obstruction was a stronger predictor of depressive, anxiety and stress symptoms as these are more significantly associated. Further evidence is needed on the incremental validity of VQ-Progress regarding positive outcomes. In addition, although incremental validity and correlations were performed in samples with men and women, factor structure analyses were performed in women-only samples. Thus, generalizing the current findings on VQ´s factor structure to men with CP is unwarranted. Finally, the validity of VQ was tested predominantly with a cross-sectional self-report methodology (except temporal stability), which does not allow causal relations to be inferred. Future studies should further knowledge of the VQ by conducting experimental studies that relate the items (and latent factors) with other variables following an experimental task using behavioral measures (e.g. persisting in a given task despite pain-eliciting stimuli).

In conclusion, VQ is a reliable and valid measure of valued living, and the first one to measure separately progress/engaging in valued living, and experiencing obstacles to proceeding with living meaningfully. This is an improvement on the measurement of valued living, which is a key process in the psychological (in)flexibility model (Hayes et al., 2012), thus crucial to assess clinically significant changes following acceptance-based interventions. Indeed, VQ was significantly correlated with core ACT-related constructs (e.g. cognitive fusion, mindful awareness, self-compassion, psychological inflexibility). Additionally, VQ is a valid and temporally stable measure of overall valued living in CP, and can be used in comparative studies with CP and the general population samples, as it presented measurement invariance.

In addition to providing evidence of the psychometric robustness of the VQ, as well as its utility in clinical and research fields of CP, the current study contributes to the ongoing discussion and empirical validity of the psychological (in)flexibility model (Hayes et al., 2012). By providing evidence of its measurement invariance, this study tentatively corroborates the assumption that progressing towards or experiencing obstacles in living a meaningful and valued life is not only transdiagnostic, but also a key underlying factor in both human thriving and suffering (Wilson & Murrell, 2004). Indeed, the VQ is a theory-built measure of valued living, in which obstacles to valued living are conceptualized as internal experiences of getting hooked by thoughts, emotions and physical sensations, as well as the unwillingness to experience those that result in attempts to avoid them (Hayes et al., 2006), as can be corroborated by the high correlation between cognitive fusion (CFQ) and obstacles to valued living (VQ-Obstruction). Finally, our data tentatively corroborate the postulate that although values and valued living are a key process in psychological (in)flexibility model (Hayes et al., 2013), values are a distinct and non-overlapping process beyond psychological (in)flexibility and other psychological processes key or related to the model (e.g. contact with present moment, self-compassion). Future studies should continue pushing forward the empirical status of the model by testing the distinctiveness and overlap of all core psychological (in)flexibility processes, perhaps building a factor structure that would test loadings in more than one process, and thus exploring latent factors (processes), which would corroborate and/or reconceptualize the model itself.

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Study II - Perceived validation and criticism in pain: development of a new measure in chronic pain

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Perceived validation and criticism in pain: development of a new measure in chronic pain

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Abstract

Background: Research suggests that the way others react to a pain flare-up impacts on psychological and pain-related symptoms in chronic pain (CP). Experiencing validation from others is associated with less negative emotions and better functioning. Contrarily, experiencing criticism is linked to greater pain intensity and worse functioning. Nonetheless, studies are limited by an exclusive focus on spouses rather than significant other relationships, the use of proxy constructs (e.g., social support, responsiveness, solicitousness) rather than specific measures of validation and criticism, and a focus on significant others′ behavior rather than patients′ subjective experience. This study examines the psychometric properties of a new measure - Perceived Validation and Criticism in Pain Questionnaire (PVCPQ), and tests its contribution to functional impairment beyond pain intensity, sociodemographic and medical-related variables, positive and negative affect, safeness, and compassion from others.

Methods: Women with CP (N=172), 130 (75.6%) of whom had fibromyalgia, completed an online battery of questionnaires (PVCPQ; numeric pain rating scale; work and social adjustment scale; positive and negative affect schedule; social and pleasure scale; compassionate engagement and action scale). Exploratory factor analysis (EFA), reliability analysis, correlational analysis and hierarchical regression analysis were performed.

Results: EFA showed a 23-item two-factor solution with good psychometric properties. Criticism in pain (but not validation in pain) contributed to functional impairment above and beyond the variance explained by pain intensity, sociodemographic and medical variables, positive and negative affect, safeness and compassion from others.

Conclusions: These findings suggest that the PVCPQ is a psychometrically valid new measure of perceived validation and criticism in pain that contributes to explaining pain-related functional impairment.

Keywords: Valuing Questionnaire; Acceptance and Commitment Therapy; Assessment; Values.

INTRODUCTION

Validation is an interpersonal process through which one individual communicates to another that their experience is understandable, accepted and “makes sense” (Fruzzetti and Iverson, 2004; Linehan, 1993). In chronic pain (CP), validation constitutes any behavior that communicates that the pain-related emotional experience and overall suffering is legitimate, understandable, and accepted (e.g.,Cano and Williams, 2010). Studies suggest that validation correlates with less intense negative emotions (Edlund et al., 2015; Vangronsveld and Linton, 2011; Wilson et al., 2017). However, these studies present several limitations. Firstly, they mainly focus on partner´s responsiveness and solicitousness (e.g., providing pain medication, helping with chores, asking how they can help) (Newton-John, 2002), which are not necessarily validation. Also, studies have used social support measures as a proxy to validation, when in fact they measure distraction and problem-solving behaviors [e.g. the support subscale of the Multidimensional Pain Inventory (MPI; Kerns et al., 1985)], and/or satisfaction with support [the Social support in Pain Questionnaire (SPQ; Lugt et al., 2011)] rather than validation. Additionally, many studies have used observational coding systems (e.g.,Cano et al., 2008; Edmund and Keefe, 2015; Leong et al., 2011), which tell us little about the subjective experience of being validated. Indeed, there is more evidence on objective validation behaviors from others than on the subjective emotional experience of validation, which may be mediated by intrapersonal cognitive-affective processes (Fekete, Stephens, Mickelson, & Druley, 2007; Newton-John, 2002). Moreover, validation overlaps theoretically with compassion, sharing elements such as acceptance, empathy, and non-judgment. Compassion correlates positively with pain functioning (Purdie & Morley, 2016), suggesting the need for a more detailed exploration of the unique contribution of validation to functioning in CP.

Criticism from significant others is linked to greater pain intensity and decreased functioning in CP (e.g.,Burns et al., 2013; Burns et al., 2018; Alschuler and Otis, 2012). However, research has been more focused on others′ (particularly spousal) critical behavior and cognition, and less on patient´s perception of criticism (Cano and Tankha, 2018). When studies do focus on perception of criticism, they regularly use the Hooley and Teasdale (1989) 1-item measure of criticism ("How critical of you was he/she during the past 3 hours?") (e.g., Burns et al., 2018), which may fail to grasp such a complex construct as criticism. Some studies overcome this limitation of 1-item measures by using the punishing responses subscale of the MPI, which measures some aspects of criticism, such as anger, irritation, frustration, and ignoring (Kerns et al., 1985), but not necessarily the nuances of criticism [dismissiveness, put-down, comparative criticism, and shaming behaviors (e.g.,Gilbert et al., 2004; Thompson and Zuroff, 2004). It may indeed occur that others do not express negative emotions nor punitive behaviors, but are nonetheless critical (e.g.,engaging in shame- and guilt-provoking behaviors, without hostility nor overt punishment), contributing to depression and anxiety (Gilbert, 2000; Cheung et al., 2004).

This study explores the psychometric properties of a new measure specifically developed to assess the subjective perceptions of validation and criticism that people with persistent pain experience from their significant others (The Perceived Validation and Criticism in Pain Questionnaire – PVCPQ) and examines the effect of PVCPQ on pain-related functional impairment.

METHOD

Scale Development

The PVCPQ was developed to measure the perception of being validated and criticized when experiencing pain by individuals with CP. Instead of focusing on social support, responsiveness and solicitousness, and on objective indicators of significant others′ behaviors, the PVCPQ focuses on the overall perception of one′s pain being subject of validation or criticism by others. Item development was based on a review of literature on validation and criticism, and on the available measures of proxy constructs, as well as on clinical experience with conducting psychological interventions for people with chronic pain. Experts in the field of validation and criticism, and/or CP, were asked to give feedback on the 26 items originally generated. Then, according to their feedback, minor changes were made, and an additional item was generated.

The item pool administered to participants had 27-items, measured on a 5-point scale (1 = never true; 5 = always true), hypothesized to reflect two distinct constructs: 1) the perception that others understand, validate and accept their pain experience (*validation in pain*), and 2) the perception that others ignore, put-down, negatively compare and criticize their pain experience (*criticism in pain*). The validation items aimed to assess elements of emotional validation (e.g., “People make me feel that my suffering is valid”), empathy (e.g., “People usually put themselves in my shoes when I am in pain”), emotional resonance (e.g., “When I am in pain, people tell me things that validate my suffering, such as “I can only imagine how tough and difficult it is that you are feeling this way”) and acceptance (e.g., “When I am in pain, I feel that I can express my emotions”). The criticism items were developed to measure comparative criticism (e.g., “When I am in pain, people tell me I should be able to do things like others do”), put-down (e.g., “In social situations, people put me down for having pain”), negative judgment (e.g., “People judge me negatively for not knowing how to cope with my pain better”), and anger and hostility (e.g., “People get angry at me when I can´t do certain activities due to my pain”).

The main innovations of the PVCPQ include: 1) items were developed specifically for people with CP, rather than an adaptation of a general measure; 2) it focuses on significant others, rather than on a specific person such as a spouse; 3) it provides theoretically-driven items developed to assess validation and criticism, instead of the widely used proxy of “social support” (support, responsiveness/solicitousness, punishing); 4) it is a multi-item measure, which allows a comprehensive assessment of the validation and criticism constructs; 5) it focuses on the patient’s subjective experience of feeling validated and/or criticized by others, rather than others′ objective behavior, which is a relevant element for psychological interventions for CP.

Participants

The current study was conducted in a convenience sample (i.e., non-probabilistic nor representative) of women with chronic musculoskeletal pain (N = 172). Data was collected through online self-report questionnaires. Participants were recruited through national associations offering support for people with CP. It should be noted that selecting a women-only sample was not an *a priori* intention, but rather a chance effect of recruitment (only 5 men participated). This sample was exclusively collected for the purpose of the current study. Inclusion criteria: a) having chronic musculoskeletal pain previously diagnosed by a healthcare professional; b) age > 18 years; c) being able to read and write Portuguese. Participants were excluded if their pain was due to malignancy. Participants were not compensated for participating in the study. See Table 1 for a description of the sample socio-demographic and medical characteristics.

Table 1
Demographic and medical characteristics of the sample (N = 172)

	N	%
Marital status		
Single	34	19.8
Married	100	58.1
Separate/Divorced	33	19.2
Widower	3	1.7
Other	2	1.2
Education level		

Elementary school	1	0.6
Middle school	12	7
High school	60	34.9
Bachelors	58	33.7
Post-Grad	16	9.3
Masters	19	11
Doctorate	6	3.5
CP diagnoses provided by medical doctors*		
General practitioner	6	3.6
Rheumatologist	134	79.3
Psychiatrist	2	1.2
Internist	11	6.5
Other	16	9.5
CP diagnoses*		
Fibromyalgia	130	75.6
Arthrosis	37	21.5
Rheumatoid Arthritis	21	12.2
Lateral Epicondylitis	2	1.2
Low Back Pain	38	22.1
Neck Pain	24	14
Other	56	32.5
Other chronic health conditions*		
Rhinitis and/or Sinusitis	11	6.4
Hypertension	10	5.8
Hypothyroidism	9	5.2
Irritable Bowel Syndrome	8	4.6
Other	49	28.5
Duration of CP		
< 1 year	0	0
1 year - 5 years	32	18.6
5 years - 10 years	40	23.3
> 10 years	100	58.1

*participants could choose more than one option.

The current sample had a mean age of 49.01 (SD = 10.97). The majority of participants were married (n = 100; 58.1%), and had a bachelor′s degree (n = 58; 37.7%) or high school education (n = 60; 34.9%). The majority of participants were employed (n = 114; 66.7%), although some were unemployed (n = 23; 13.5%), students (n = 2; 1.2%) or retired (n = 32; 18.7%). Some were on work leave due to pain (n = 26; 15.1%), the majority were taking pain medication (n = 149; 86.6%), and had other chronic health conditions (n = 87; 50.6%). Most participants reported their CP diagnoses were delivered by a rheumatologist (n = 134; 79.3%), fibromyalgia was the most common diagnosis (n = 130; 75.6%), and the majority of participants had had CP for more than 10 years (n = 100; 58.1%). The majority had one CP diagnosis (n = 101; 58.7%), but some had two (n = 33; 19.2%), three (n = 19; 11.0%), four (n = 12; 7.0%), five (n = 6; 3.5%) and six (n = 1; 0.6%).

Procedure

Eight nationwide CP associations (professional or patient-led associations) were contacted through email and/or Facebook pages and invited to collaborate by advertising the study to their mailing lists. These CP associations were non-profit, did not provide medical nor psychological treatment, but were sources of legal advice, information on latest scientific advances and where to get appropriate clinical help. Two of the eight associations agreed to collaborate. The link to the online battery of questionnaires was given and advertised. The online survey was accessed by 289 participants, 99 (34.3%) were excluded for not completing the survey. In addition, to attain a homogenous sample in terms of gender and nationality, five men and 13 non-Portuguese women completed the protocol but were excluded from the sample. The final sample was composed of 172 Portuguese women with CP.

Information regarding the goals and targeted population of the study was provided to participants. Confidentiality was assured, as well as that data would be anonymized and used exclusively for the purpose of this study. Participants provided informed consent by clicking on an “I accept to participate in the study” box at the beginning of the protocol. The study was delivered in an online platform (Limesurvey) hosted by a University server. The study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra.

Measures

In addition to the Perceived Validation and Criticism in Pain Questionnaire (PVCPQ), the psychometric analyses were conducted with the following questionnaires, all previously translated and validated for the Portuguese population:

Numeric Pain Rating Scale (NPRS; NPRS; Hartrick, Kovan, & Shapiro, 2003; Ferreira-Valente, Pais-Ribeiro, & Jensen, 2011) is a 1-item measure of pain intensity rated on an 11-point scale (0 = ‘‘No pain’’; 10 = ‘‘Worst imaginable pain’’) which respondents use to report the intensity of pain they are currently experiencing.

Work and Social Adjustment Scale (WSAS; Mundt, Marks, Shear, & Greist, 2002) is a measure of functional impairment composed of five items (work, home management, social leisure activities, private leisure activities, and family and other relationships) that respondents rate using a nine-point scale (0 = no impairment; 8 = very severe impairment). Higher scores mean greater impairment. The WSAS can be used as a measure of functional impairment in several medical problems by specifying the medical problem in the instructions. For this study, the instructions were primed for chronic pain. The current study found a Cronbach´s alpha of α = .90.

Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; Galinha & Pais-Ribeiro, 2005) is a 20-item measure that assesses positive affect (e.g., interested, excited, inspired) and negative affect (e.g., distressed, scared, irritable) on a five-point scale (1 = very slightly or not at all; 5 = extremely). Respondents rate the degree to which they felt each emotion during the last week. This study had a Cronbach´s alpha of α = .90 for the positive affect subscale, and α = .91 for the negative affect subscale.

Social Safeness and Pleasure Scale (SSPS; Gilbert et al., 2009; Pinto-Gouveia, Matos, & Dinis, 2008) measures social safeness (i.e., the degree to which one experiences feelings of belongingness, connectedness and warmth in social relationships) on an 11-item scale. Each item is rated on a 5-point scale (0 = almost never; 4 = almost all the time), and higher scores translate into greater feelings of social safeness. In the current study, the SSPS had an α of .96.

Compassionate Engagement and Action Scales – Compassion from others (CAAS; Gilbert et al., 2017) are a set of three scales: one scale that measures the ability to be *self-compassionate,* one scale that measures the ability to be *compassionate towards others*, and one that measures the ability to receive *compassion from others*. Given the purpose of the current study, and in order not to burden participants, only the *compassion from others* scale was used. This scale has six items that measure the degree to which respondents perceive others to engage with them compassionately (i.e., being sensitive to their suffering, sympathetic, non-judgmental, empathetic, able to tolerate distress, and caring for their wellbeing) (e.g. "Others are accepting, non-critical and non-judgmental of my feelings of distress"), and four items that measure the degree to which respondents perceive others to act compassionately towards them (e.g. "Others think about and come up with helpful ways for me to cope with my distress"). The current study found an α = .93 for the compassionate *engagement* subscale and α = .94 for the compassionate *action* subscale.

Data analysis

All statistical analyses were conducted using SPSS statistics software version 23.0 IBM corp., 2011).

In order to explore the factor structure of the PVCPQ, an exploratory factor analysis (EFA) was conducted using the Principal Component Analysis (PCA) parameter estimation method, and the Direct Oblimin rotation given the a priori assumption that both hypothesized factors would be correlated (Tabachnick & Fidell, 2007). Eigenvalues

> 1, as well as scree plot analysis of points of inflection, were considered when deciding the number of factors retained (Johnson, 1998). Also, in order to confirm results from PCA, a parallel analysis (PA) was conducted to diminish potential problems related to factor over-extraction (Hubbard & Allen, 1987; Zwick & Velicer, 1986). Factor extraction in PA is determined by comparing the eigenvalues from the PCA correlation matrix and the randomly generated eigenvalues in the PA. Factor should be retained when PCA eigenvalues are greater than the respective PA eigenvalues (Franklin, Gibson, Robertson, Pohlmann, & Fralish, 1995). The adequacy of data was assessed through the Kaiser Meyer-Olkin (KMO) test, in which KMO > 0.80 is considered adequate (Kaiser, 1974; Sharma, 1996). Extraction communalities were considered in order to estimate the variance of each item accounted for by the factors, in which values < .50 suggests the items should be extracted (Hair, Black, Babin, & Anderson, 1998).

Reliability was assessed through Cronbach’s alphas, where $\alpha > .70$ were considered acceptable (Field, 2013), and considering item-total correlations >.50 (Nunnally, 1978; Tabachnick & Fidell, 2007).

Pearson´s correlation coefficients were analyzed in order to assess construct validity by correlating the PVCPQ, sociodemografic (age, years of education) and medical-related variables (number of CP diagnoses, taking medication, presence of other chronic illnesses), and other measures of related constructs (Cohen, Cohen, West, & Aiken, 2003).

Hierarchical regression analyses were performed to explore the relationship between PVCPQ and pain-related functional impairment, above and beyond pain intensity, positive and negative affects, feelings of social safeness and perceived compassion from others (Haynes & Lench, 2003).

RESULTS

Preliminary Data Analyses

Preliminary analysis on the adequacy of data was performed and showed acceptable skewness and kurtosis values (SK < |3| and Ku < |8-10|) (in our sample, SK_{min} = -0.59 and SK_{max} = 0.45; $Ku_{min\,=}$ -0.92 and Ku_{mas} = 0.06) and VIF <5 (Kline, 2005), which suggests normal distribution. There were no extreme outliers.

Exploratory factor analysis (EFA)

An initial EFA with Principal Component Analysis (PCA) was conducted, without rotation and using the Kaiser criterion (eigenvalues > 1) for extracting factors. Results showed the data was adequate [KMO = 0.946; χ^2 (351) = 3663. 60, $p < 0.001$], all communalities were greater than 0.50, and the eigenvalues suggested 3 factors: Factor 1 had an eigenvalue of 13.07, explaining 48.40% of variance. Factor 2 had an eigenvalue of 3.75 (13.88% of variance) and Factor 3 an eigenvalue of 1.05 (3.88% of variance). In order to confirm these results, and overcome potential over-extraction, a Parallel Analysis (PA) was conducted. Results suggested that only two components presented eigenvalues greater than the corresponding randomly generated matrix in PA (eigenvalues for Factor 1 = 1.92, Factor 2 = 1.77, Factor 3 = 1.67), suggesting a two-factor solution as was hypothesized in the scale development. A two-factor solution was therefore forced, using the same extraction and rotation procedures described above . Results showed that the two-factor solution explained 62.28% of the variance. Three items presented extracted communalities < 0.50 (item 5 = 0.403; item 10 = 0.481; item 14 = 0.445), and one item loaded on the two factors (item 2) (see Table 2).

Table 2. Complete item pool, communalities and factor loadings (N = 172)

Instructions: we are interested in knowing the way in which other people in your life (i.e., partner, children, friends, other family members) deal with your pain and the impact it has in your life. Below, you have a set of sentences about how people usually react to your pain. Please, tell us how each sentence applies to your experience (1 = never true; 2 = rarely true; 3 = sometimes true; 4 = frequently true; 5 = always true).

Items (English)	Items (Portuguese)	Communalities	Factor loadings	
			Factor 1	Factor 2
[a] 1. When I am in pain, I feel that I can express my emotions.	*Quando tenho dor, sinto que posso expressar as minhas emoções.*	0.51	**0.70**	-0.02
2. When I am in pain, other people ignore me.	*Quando sinto dor, os outros ignoram-me.*	0.50	-0.44	0.39
[a] 3. People get angry at me when I can´t do certain activities due to my pain.	*Os outros ficam zangados comigo quando não posso fazer certas atividades devido à minha dor.*	0.63	-0.16	**0.71**
[a] 4. People criticise me for having pain.	*Os outros criticam-me por causa da minha dor.*	0.67	-0.15	**0.74**
5. People notice I am in pain even before I tell them.	*Os outros notam que eu estou com dor mesmo antes de eu lhes dizer.*	0.40	0.71	0.27
[a] 6. People understand the suffering that the pain causes me.	*Os outros compreendem o sofrimento que a dor me provoca.*	0.63	**0.75**	-0.09
[a] 7. People usually put themselves in my shoes when I am in pain.	*Os outros costumam tentar pôr-se no meu lugar quando estou com dor.*	0.54	**0.77**	0.09
[a] 8. People judge me negatively for not knowing how to cope with my pain better.	*Os outros julgam-me negativamente por eu não saber lidar melhor com a minha dor.*	0.63	-0.07	**0.76**
[a] 9. When I am in pain, people acknowledge that any person in my situation would suffer as I do.	*Quando sinto dor, os outros compreendem que qualquer pessoa na minha situação sofreria como eu.*	0.64	**0.77**	-0.07
10. People do not find me capable enough due to my pain.	*Os outros não me acham capaz o suficiente devido à minha dor.*	0.48	0.02	0.70
[a] 11. People are intolerant of my pain.	*Os outros são intolerantes com a minha dor.*	0.65	-0.09	**0.76**
[a] 12. When I am in pain, people pick on me.	*Quando sinto dor, os outros implicam comigo.*	0.71	-0.10	**0.79**
[a] 13. People make me feel like a failure for having pain.	*Os outros fazem-me sentir um fracasso por ter dor.*	0.71	-0.09	**0.80**
14. People usually remind me what I am unable to do due to my pain.	*Os outros costumam lembrar-me do que eu não sou capaz de fazer devido à dor.*	0.44	0.15	0.72

[a] 15. When I am in pain, people tell me I should be able to do things like others do.	*Quando tenho dor, os outros dizem-me que eu devia conseguir fazer as coisas como as outras pessoas fazem.*	0.77	0.06	**0.90**
[a] 16. When I am in pain, people tend to be harsh on me.	*Quando tenho dor, os outros tendem a ser duros comigo.*	0.73	-0.04	**0.84**
[a] 17. People understand and accept the limitations that the pain causes in my life.	*Os outros compreendem e aceitam as limitações que a dor causa na minha vida.*	0.64	**0.58**	-0.35
[a] 18. In my difficult moments of pain, people are supportive and caring.	*Nos momentos difíceis de dor, os outros apoiam-me e dão-me carinho.*	0.65	**0.79**	-0.02
[a] 19. I feel that people hear me when I talk about my pain.	*Sinto que os outros me ouvem quando falo sobre a minha dor.*	0.75	**0.77**	-0.18
[a] 20. When I am in pain, people tell me things that validate my suffering (e.g., "I can only imagine how tough and difficult it is that you are feeling")	*Quando estou com dor, os outros dizem-me coisas que validam o meu sofrimento (e.g. "deve ser mesmo duro e difícil sentir isso").*	0.53	**0.73**	0.01
[a] 21. In social situations, people put me down for having pain.	*Em situações sociais, os outros diminuem-me por eu sentir dor.*	0.61	0.06	**0.81**
[a] 22. People are understanding when I feel sad or anxious due to my pain.	*Os outros compreendem quando me sinto triste ou ansioso/a devido à minha dor.*	0.62	**0.64**	-0.25
[a] 23. I feel that my suffering makes sense to others.	*Sinto que o meu sofrimento faz sentido para os outros.*	0.65	**0.74**	-0.13
[a] 24. People make me feel that my suffering is valid.	*Os outros fazem-me sentir que o meu sofrimento é válido.*	0.67	**0.82**	-0.01
[a] 25. People judge me negatively when I can´t do certain activities due to my pain.	*Os outros julgam-me negativamente quando não consigo fazer certas atividades devido à minha dor.*	0.70	-0.03	**0.83**
[a] 26. I feel that others are available to do whatever it takes to help me cope with my pain.	*Sinto que os outros estão disponíveis para fazer o que for preciso para me ajudar a lidar com a dor.*	0.66	**0.76**	-0.11
[a] 27. When I am in pain, I can see through their body language that people accept my pain.	*Quando tenho dor, vejo na linguagem corporal dos outros que eles aceitam a minha dor.*	0.67	**0.81**	-0.02

[a] The 23 items from the final version of the PVCPQ. Factor 1 (Validation) is composed of items 1, 6, 7, 9, 17, 18, 19, 20, 22, 23, 24, 26, 27, and Factor 2 (Criticism) is composed of items 3, 4, 8, 11, 12, 13, 15, 16, 21, 25.

Items 2, 5, 10 and 14 were removed and the analysis repeated. Results corroborated the adequacy of data (KMO = 0.946; χ^2 (253) = 3218. 39, $p < 0.001$). The solution explained 65.97% of the variance (Factor 1 = 51.84; Factor 2 = 14.13%), communalities were all greater than 0.50, and factor loadings clearly suggested that one factor was composed of items that reflect the construct "validation in pain" (items 1, 6, 7, 9, 17, 18, 19, 20, 22, 23, 24, 26, 27), and a second factor was composed of items that reflect the construct "criticism in pain" (items 3, 4, 8, 11, 12, 13, 15, 16, 21, 25). Thus, data supported a final 23-item version of PVCPQ composed of one factor that assesses feelings of *validation* when experiencing pain, and one factor that assesses feeling *criticized* when experiencing pain.

Internal consistency

According to corrected item-total correlations, all items presented an item-total correlation > 0.30. Cronbach´s alpha values suggested that both subscales had good internal consistency, with both "validation in pain" and "criticism in pain" presenting an α = 0.95 (see Table 3). Alpha would not be improved by deleting any of the items.

Table 3. Means (*M*), Standard Deviations (*SD*), Corrected item-total correlation (*r*), Cronbach´s alpha (α) if item deleted and Cronbach´s alpha (α) of each subscale (N = 172)

	M	*SD*	Corrected item-total *r*	α if item deleted	α
Validation in pain					**0.95**
Item 1	3.16	1.06	0.66	0.95	
Item 6	2.79	1.08	0.74	0.94	
Item 7	2.08	0.95	0.67	0.95	
Item 9	2.66	0.98	0.76	0.94	
Item 17	2.92	1.10	0.74	0.94	
Item 18	3.01	1.10	0.76	0.94	
Item 19	2.65	0.97	0.84	0.94	
Item 20	2.59	1.04	0.68	0.95	
Item 22	2.63	1.03	0.74	0.94	
Item 23	2.36	1.00	0.78	0.94	
Item 24	2.47	1.07	0.78	0.94	
Item 26	2.76	1.10	0.78	0.94	
Item 27	2.57	1.12	0.78	0.94	

Criticism in pain					**0.95**
Item 3	2.51	1.14	0.76	0.95	
Item 4	2.52	1.22	0.78	0.94	
Item 8	2.70	1.20	0.76	0.95	
Item 11	2.59	1.16	0.78	0.94	
Item 12	2.18	1.07	0.82	0.94	
Item 13	2.12	1.16	0.80	0.94	
Item 15	2.26	1.24	0.84	0.94	
Item 16	2.13	1.08	0.84	0.94	
Item 21	2.04	1.06	0.70	0.95	
Item 25	2.55	1.16	0.80	0.94	

Correlation analysis

The PVCPQ was significantly correlated with pain-relevant measures and related constructs (see Table 4).

Specifically, “validation in pain” was negatively associated with “criticism in pain”, pain intensity, pain-related functional impairment and negative affect, and positively correlated with positive affect, feelings of safeness, and compassionate engagement and action from others. On the other hand, “criticism in pain” was negatively associated with positive affect, and compassionate engagement and action from others, and positively correlated with pain intensity, pain-related functional impairment and negative affect. Age was positively correlated with positive affect and negatively with negative affect. Years of education was negatively correlated with pain intensity. The number of CP diagnoses was positively correlated with perceiving criticism, pain intensity, functional impairment, and negative affect, and negatively with safeness and compassionate engagement from others. Taking medication and having other chronic illnesses did not correlate with any other variables.

Table 4. Means, Standard Deviations and Intercorrelations between variables (N = 172)

Variables	M	SD	1	2	3	4	5	6	7	8	9
1.Validation in pain	34.63	10.71	-	-	-	-	-	-	-	-	-
2. Criticism in pain	23.59	9.54	-0.58***	-	-	-	-	-	-	-	-
3. Pain intensity	5.83	2.16	-0.23**	0.35***	-	-	-	-	-	-	-
4. Pain-related functional impairment	25.82	8.28	-0.22**	0.49***	0.51***	-	-	-	-	-	-
5. Positive affect	25.02	8.23	0.34***	-0.21**	-0.22**	-0.32***	-	-	-	-	-
6. Negative affect	24.87	9.09	-0.25**	0.55***	0.37***	0.53***	-0.36***	-	-	-	-
7. Safeness	40.59	13.79	0.69***	-0.61***	-0.23**	-0.38***	0.46***	-0.45***	-	-	-
8. Compassionate engagement from others	30.03	12.43	0.77***	-0.54***	-0.21**	-0.22**	0.27**	-0.34***	0.67***	-	-
9. Compassionate action from others	19.63	9.41	0.77***	-0.49***	-0.18*	-0.18*	0.27***	-0.28***	0.65***	0.86***	-
10. Age	49.01	10.97	-0.13	-0.15	-0.07	-0.08	0.23**	-0.24**	0.04	-0.05	-0.08
11. Years of education	15.24	3.43	0.10	-0.11	-0.17*	-0.04	0.05	-0.11	0.07	0.10	0.06
12. Number of CP diagnoses	1.79	1.16	-0.13	0.16*	0.16*	0.20**	-0.08	0.18*	-0.16*	-0.17*	-0.09
13. Medication (yes/no)	-	-	0.04	0.14	0.09	0.13	0.04	0.09	0.07	0.04	0.10
14. Other chronic illness (yes/no)	-	-	-0.02	-0.02	0.01	0.08	0.01	-0.02	-0.02	-0.09	-0.07

* p < .05, ** p < .01, *** p < .001

Hierarchical regression analysis

Hierarchical regression analyses were conducted in order to test the unique contribution of the PVCPQ in explaining the variance of pain-related functional impairment above and beyond other pain-relevant and/or closely related processes. Five models were examined, and pain-related functional impairment was predicted by progressively adding to the model predictors: step 1) validation in pain; step 2) criticism in pain; 3) pain intensity, number of CP diagnoses, age, years of education, medication and other chronic illness; 4) positive and negative affect; 5) social safeness; and 6) compassionate engagement and action from others (see Table 5).

Table 5. Hierarchical Multiple Regression analysis on the relationship between validation and criticism in pain and pain-related functional impairment (N = 172)

	Pain-related functional impairment			
	$\beta^{(p\text{-value})}$	sr^2	R^2	ΔR^2
Step 1			0.044	0.044
Validation in pain	**$-0.21^{(0.007)}$**	**0.04**		
Step 2			0.254	0.210
Validation in pain	$0.11^{(0.194)}$	0.01		
Criticism in pain	**$0.56^{(< 0.001)}$**	**0.22**		
Step 3			0.396	0.142
Validation in pain	$0.13^{(0.117)}$	0.02		
Criticism in pain	**$0.43^{(< 0.001)}$**	**0.15**		
Pain intensity	**$0.36^{(< 0.001)}$**	**0.15**		
Number of CP diagnoses	$0.10^{(0.142)}$	0.01		
Age	$-0.01^{(0.934)}$	0.00		
Years of education	$0.04^{(0.505)}$	0.00		
Medication (yes/no)	$0.00^{(0.971)}$	0.00		
Other chronic illness (yes/no)	$0.08^{(0.191)}$	0.01		
Step 4			0.478	0.082
Validation in pain	**$0.21^{(0.011)}$**	**0.04**		
Criticism in pain	**$0.36^{(<0.001)}$**	**0.10**		
Pain intensity	**$0.29^{(<0.001)}$**	**0.12**		
Number of CP diagnoses	$0.06^{(0.363)}$	0.00		
Age	$0.10^{(0.144)}$	0.01		
Years of education	$0.04^{(0.479)}$	0.00		
Medication (yes/no)	$0.01^{(0.871)}$	0.00		

Other chronic illness (yes/no)	$0.09^{(0.126)}$	0.02		
Positive affect	**$-0.22^{(0.002)}$**	**0.06**		
Negative affect	**$0.22^{(0.006)}$**	**0.05**		
Step 5			0.482	0.004
Validation in pain	**$0.026^{(0.006)}$**	**0.05**		
Criticism in pain	**$0.325^{(0.001)}$**	**0.08**		
Pain intensity	**$0.30^{(<0.001)}$**	**0.12**		
Number of CP diagnoses	$0.05^{(0.397)}$	0.00		
Age	$0.10^{(0.155)}$	0.01		
Years of education	$0.04^{(0.512)}$	0.00		
Medication (yes/no)	$0.02^{(0.756)}$	0.00		
Other chronic illness (yes/no)	$0.09^{(0.147)}$	0.01		
Positive affect	**$-0.20^{(0.007)}$**	**0.05**		
Negative affect	**$0.20^{(0.012)}$**	**0.04**		
Social Safeness	$-0.11^{(0.280)}$	0.01		
Step 6			0.485	0.003
Validation in pain	$0.20^{(0.083)}$	0.02		
Criticism in pain	**$0.33^{(0.001)}$**	**0.08**		
Pain intensity	**$0.30^{(<0.001)}$**	**0.12**		
Number of CP diagnoses	$0.06^{(0.386)}$	0.00		
Age	$0.10^{(0.160)}$	0.01		
Years of education	$0.04^{(0.519)}$	0.00		
Medication (yes/no)	$0.02^{(0.779)}$	0.00		
Other chronic illness (yes/no)	$0.09^{(0.128)}$	0.02		
Positive affect	**$-0.19^{(0.01)}$**	**0.04**		
Negative affect	**$0.21^{(0.01)}$**	**0.04**		
Social Safeness	$-0.12^{(0.216)}$	0.01		
Compassionate engagement from others	$0.06^{(0.622)}$	0.00		
Compassionate action from others	$0.03^{(0.817)}$	0.00		

Note. Significant effects are depicted in bold.

Results showed that the overall model explained 48.5% of pain-related functional impairment, and that “criticism in pain” (but not “validation in pain”) significantly added to the model above and beyond the effect of pain intensity, backrgound variables, positive and negative affect, feelings of safeness and compassionate engagement and action. Although pain intensity is still the greater contribute to pain-related functional impairment (sr^2 = 12%), the perception of being criticised by significant others when experiencing pain is the second greatest contributor (sr^2 = 8%), more than negative affect (sr^2 = 4%) and positive affect (sr^2 4%). Overall, the PVCPQ, particularly its criticism subscale, significantly contributes to the variance of pain-related functional impairment.

DISCUSSION

The current study developed and validated a new multi-item measure of perceived validation and criticism in pain, in a sample of Portuguese women with CP (N = 172).

Results from EFA corroborated the hypothesized two-factor solution. Four items (2, 5, 10, 14) did not reach sufficient psychometric quality, thus were removed. The final version was composed of 23 items, each unequivocally loading on its previously hypothesized factor. The factor "validation in pain" assessed the overall perception that significant others understand and accept the participant's pain-related suffering and struggles (items 1, 6, 7, 9, 17, 18, 19, 20, 22, 23, 24, 26, 27). The factor "criticism in pain", on the other hand, measures the overall perception that significant others are judgmental, shaming and generally critical of the pain experience and its associated limitations (items 3, 4, 8, 11, 12, 13, 15, 16, 21, 25). The two factors were significantly negatively correlated, which is in line with previous literature that suggests that criticism is inversely associated with validation-related constructs such as social support (e.g., Burns et al., 2018), acceptance (e.g., Costa and Pinto-Gouveia, 2011) and compassion (e.g., Purdie and Morley, 2016).

Correlation analysis showed that validation of pain was negatively associated with pain intensity and pain-related functional impairment. This seems to be aligned with existing studies using social support measures as proxy to "validation" showing negative association with pain (e.g., Goubert et al., 2005). Also, validation of pain was positively correlated with positive affect, and negatively correlated with negative affect. Previous studies show a similar pattern of results using proxy measures of validation (e.g., Edlund et al., 2015; Vangronsveld & Linton, 2011). Validation in pain was also positively correlated with feelings of safeness and connectedness, supporting similar results from studies of related constructs, such as self-compassion in pain (Carvalho et al., 2019). Indeed, results show that being validated by others when experiencing pain is positively related to perceiving compassion from others. To our knowledge, this is the first data on the relationship between perceiving validation and compassion from others. Results support theoretical propositions that recognize the relationship between these constructs (Gilbert et al., 2017). Expectedly, an opposite pattern of significant associations was found for criticism in pain. This finding supports previous studies that found correlations between criticism and pain intensity (e.g., Burns et al., 2013; Alschuler and Otis, 2012) and more negative affect (e.g., Burns et al., 2018).

Hierarchical regression analysis was conducted to test whether the PVCPQ was a significant predictor of pain-related functional impairment above and beyond background variables (sociodemographic and medical-related), well-established pain-related variables (pain intensity, positive and negative affect) and validation-related constructs (feelings of safeness, and compassion from others). Results showed that PVCPQ, particularly the “criticism in pain” subscale, was a significant predictor of pain-related functional impairment, even when controlling for pain intensity, age, years of education, number of CP diagnoses, medication and presence of other chronic illnesses, affect, feelings of safeness and connectedness and compassion from others. This suggests that experiencing others as critical towards one′s pain experience has a significant role in pain-related functional impairment. The contribution of criticism in pain is in addition to the impact of pain intensity and positive and negative affect. This expands our knowledge of the role of criticism in pain (e.g., Burns et al., 2013; Alschuler and Otis, 2012) by controlling for the effect of conceptually relevant and negatively correlated constructs such as feelings of safeness and the perception of others engaging and acting compassionately.

These findings should be interpreted with some caveats about the current sample. Specifically, the majority of the sample were women with fibromyalgia. Thus, these results may be specific to fibromyalgia, and not generalizable to overall CP. For example, it is known that interpersonal relationships/events are particularly impactful in fibromyalgia (e.g., Wolf & Davis, 2014), and interpersonal stress is more strongly associated with pain in fibromyalgia than, for example, in osteoarthritis (e.g., Zautra et al., 1999). Also, individuals with fibromyalgia report more depression and fatigue than those with osteoarthritis or rheumatoid arthritis (e.g., Parrish et al., 2008), and less positive affect than individuals with osteoarthritis (e.g., David et al., 2001), which may explain the impactful role of interpersonal and intrapersonal variables in functioning. These results should be replicated in more heterogeneous samples of CP. Additionally, it should be noted that the relatively low magnitude of significant correlations between validation in pain, as well as its lack of unique contribution in the last step of regression analysis, seems to indicate that perhaps perceiving validation does not impact directly on functional impairment, but indirectly through other processes. For example, it may be the case that perceiving validation in pain leads to less psychopathological symptoms (depression, anxiety, etc), which in turn may lead to less functional impairment. It may also be the case that perceiving validation may lead to more help-seeking behaviors, which in turn might result in more valued living and less functional impairment. Future studies should conduct mediational analyses to test these hypotheses, preferably through time-lagged and/or experimental designs.

Overall, the interpretation of these results should consider the limitations of the study. Firstly, the sample was composed of women, which is not representative of the demographics of individuals with CP. Future studies should explore the psychometrics of the PVCPQ in a sample that is more balanced in terms of gender. Measurement invariance across genders could be tested using multi-group confirmatory factor analysis. In addition, although the sample size was sufficiently powered to provide robust evidence of factor structure, reliability and validity (Winter et al., 2009), future studies should replicate the analysis in a larger sample. Furthermore, the sample was not balanced in terms of CP diagnoses, with a disproportionately large percentage of individuals with fibromyalgia when compared to other CP conditions. Future studies should replicate these results in a more balanced sample in terms of CP conditions. It should also be noted that 99 participants were excluded for not completing the questionnaires. This potentially limits the generalization of these results. For example, participants who did not complete the questionnaires might present more clinically significant psychopathological symptoms (e.g., depression) and/or more functional impairment, which could yield different results. Indeed, previous studies seem to suggest that women with more depressive symptoms are particularly vulnerable to the impact of criticism (e.g., Burns et al., 2018). This warrants caution in generalizing the results. Finally, the cross-sectional nature of the study design precludes drawing causal relationships between variables, findings remain correlational and preliminary. Future studies should conduct longitudinal and/or experimental designs to establish more accurate and causal conclusions of the predictive role of the PVCPQ.

Overall, future research should expand the study of the PVCPQ by exploring its sensitivity to clinical change on the one hand (e.g., it´s ability to detect changes in perceptions of validation and criticism after a psychological program for CP), and on the other hand its temporal stability (e.g., in a time-lagged design). Also, future studies should test incremental validity by comparing the PVCPQ with other measures of validation-and criticism-related constructs (e.g., the MPI or the SPQ), contributing to a more nuanced study of these constructs, and a better understanding of their role in pain.

The PVCPQ provides the opportunity to better understand the impact of relationships with significant others in CP, particularly the impact of perceiving validation and criticism. These constructs go beyond the coping-focused elements in social support, and the objectively quantifiable instances of support and hostility. It focuses on the emotional and subjective experience of validation and criticism by significant others, that are crucial cognitive and emotional data to further explore and inform patient-focused psychological approaches to CP. The PVCPQ is a novel and valid measure of perceived validation and criticism in pain, which may help advance our understanding of the mechanisms through which interpersonal relationships (i.e., the quality and type of relationship) impact on pain-related symptoms (e.g., intensity, disability, tolerance), mental health difficulties (e.g., psychopathological symptoms), seeking treatment (e.g., the anticipation of criticism from health professionals, compliance with treatment, adoption of pain management strategies) and health behaviors (e.g., sleep, physical activity).

In conclusion, the PVCPQ is a valid and reliable 23-items measure of perceived validation and criticism by significant others. Results suggest that both subscales (*validation in pain* and *criticism in pain*) are significantly correlated with pain intensity and pain-related functional impairment, positive and negative affect, feelings of safeness, and compassionate engagement and action from others. Finally, results suggest that perceiving criticism by others when experiencing pain contributes to pain-related functional impairment above and beyond background variables (age, years of education, number of CP diagnoses, taking medication and having other chronic illnesses), pain intensity, affect, feelings of safeness and perceived compassion from others.

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Author Contributions

S.C. and P.C. have conceptualized and designed the study. S.C. have written the manuscript. All authors have contributed to the discussion of results and implications, and commented on the manuscript.

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Chapter 4: The relationship between pain, psychological processes and depressive symptoms

Study III - Pain and depressive symptoms: exploring cognitive fusion and self-compassion in a moderated mediation model

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Pain and depressive symptoms: exploring cognitive fusion and self-compassion in a moderated mediation model

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Abstract

The association between chronic pain (CP) and depression is complex, and influenced by several psychological processes. Cognitive fusion (i.e. being entangled with one´s internal experiences) and self-compassion (i.e. being touched by one´s suffering, with a motivation to alleviate it) have been hypothesized as relevant psychological processes in physical and mental health, but few studies have addressed them in CP, and none in a comprehensive model relating pain intensity and depressive symptoms. This study tests, in a moderated mediation model, the mediator role of cognitive fusion between pain intensity and depressive symptoms, and the moderator effect of self-compassion in this mediation. In a cross-sectional study, 231 female CP patients (Age: M = 48.51, SD = 10.89) responded online self-report measures. PROCESS, an SPSS macro for conducting path analysis modeling, was used to test the hypothesized model. The model explained 63% of depressive symptoms, and cognitive fusion mediates the association between pain intensity and depressive symptoms. Also, self-compassion moderates this mediation (regardless of self-compassion being low, moderate or high). Although pain intensity is a predictor of depressive symptoms, fusion with thinking in general mediates this association, this relationship is buffered when patients are able to respond to setbacks and perceived shortcomings with self-kindness and warmth. Clinical and theoretical implications are discussed.

Keywords: chronic pain; depression; cognitive fusion; self-compassion; descriptive survey study.

INTRODUCTION

Chronic Pain (CP) is a medical condition characterized by constant or sporadic pain or discomfort for at least 3 months (Merksey & Bogduk, 1994). Studies suggest a CP prevalence of 12% to 30% of Europeans (Breivik, Collett, Ventafridda, Cohen, & Gallacher, 2006), with major impact on quality of life, social and occupational capacity (e.g. Breivik, Eisenberg, & O'Brien, 2013).

Individuals who suffer from CP also experience depressive symptoms. Indeed, depression is a particularly common experience in CP patients (e.g. Jobski, Luque-Ramos, Albrecht, & Hoffmann, 2017; McDonald, Shellman, Graham, & Harrison, 2016). One study found that 52% of a heterogeneous CP sample met criteria for major depression (Elliott, Renier, & Palcher, 2003). Although the causal relation between depression and CP is complex, there seems to be more evidence supporting that depression is a consequence of pain in CP, than the other way around (Wörz, 2003), and some authors suggest this association is influenced by cognitive factors (Gatchel, Peng, Peters, Fuchs, & Turk, 2007). Indeed, cognitive factors have been a major avenue of research into the question of why some people with CP develop depression symptoms while others do not (Turk, Okifuji, & Scharff, 1995). During the past 30 years, much of the research on the cognitive factors involved in depression in CP have focused more on the content of thoughts (e.g. Crombez, Eccleston, Van Damme, Vlaeyen, & Karoly, 2012) and less on the psychological processes that underlie different thoughts. One psychological process that seems to be an important factor in CP disability is experiential avoidance (Ruiz-Párraga & López-Martínez, 2015), i.e. the unwillingness to experience unwanted or painful internal events (e.g. thoughts, emotions, physical sensations) that leads to attempts to control or escape from these internal experiences (Chawla & Ostafin, 2007). Avoidance has received a lot of empirical attention and support from within the Psychological

Flexibility Model (McCracken & Vowles, 2014), and it seems to be related to cognitive fusion (Gillanders et al., 2014). Cognitive fusion is the process through which the content describing an object or event is experienced as undistinguished from the actual object or event (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). In other words, it is a deleterious psychological process by which an individual believes in the literal meaning of their thoughts rather than seeing them as transient internal experiences (Greco, Lambert, & Baer, 2008). For example, the thought “this pain will never stop” is experienced as a certainty about the future rather than just a thought that occurred in the present. Thus, cognitive fusion might be understood as an underlying process of other cognitive and emotional factors that have already been studied in CP. For example, one study found that cognitive fusion mediates the association between pain catastrophizing and disability in young people with CP (Solé et al., 2016). Although there are a few studies on the relationship between cognitive fusion and emotional distress, particularly depression, in different populations (e.g. Gillanders et al., 2014), it has not been extensively studied in CP (McCracken, DaSilva, Skillicorn, & Doherty, 2014; Scott, McCracken, & Norton, 2016). According to the Psychological Flexibility Model, cognitive fusion is a key potentially harmful psychological process through which difficult experiences, such as physical sensations, lead to psychological suffering such as depression (Hayes et al., 2006). Considering that the relationship between pain and depressive symptoms seems to be influenced by cognitive factors, and that cognitive fusion is an underlying process in cognitive and emotional factors, this raises the hypothesis that cognitive fusion might be an underlying mechanism through which pain and depressive symptoms are related. The few studies that have explored cognitive fusion in CP found that it is significantly correlated with pain interference, affective stress, mental well-being and quality of life in CP (Wicksell, Renöfält, Olsson, Bond, & Melin, 2008) and with depression in CP

(McCracken et al., 2014). This seems to suggest that cognitive fusion may be relevant in CP, but more research is needed to better understand the extant of its role.

Recent studies suggest the potential benefits of self-compassion in chronic illness (Pinto-Gouveia, Duarte, Matos, & Fráguas, 2014; Sirois, Molnar, & Hirsch, 2015), particularly in reducing depression and anxiety symptoms (Neff, Hsieh, & Dejitterat, 2005). Self-compassion is described as the ability to be touched by one´s suffering, combined with the motivation to alleviate it through a mindful and kind manner, with the wisdom to acknowledge that suffering is part of our common humanity (Neff, 2003). It encompasses a mindful and accepting way of experiencing difficulties, but goes beyond that as it entails a kind and warm way of self-to-self relating (Neff & Dahm, 2015; Neff & Tirch, 2013). Self-compassion relates to more health-promoting behaviors (Dunne, Sheffield, & Chilcot, 2016) and less psychopathological symptoms in cancer patients (Gillanders, Sinclair, MacLean, & Jardine, 2015). Although negative associations between self-compassion and psychopathological symptoms have been evidenced in several studies (MacBeth & Gumley, 2012), few have explored self-compassion in CP. Those who did found self-compassion to be a significant predictor of depression symptoms in CP (Costa & Pinto-Gouveia, 2011a, 2011b), even when controlling for demographic variables (e.g. age, level of education) (Wren et al., 2012). Additionally, one study found that self-compassion is a moderator of the affective and cognitive responses to a vignette-based social situation in a sample of participants with CP (Purdie & Morley, 2015). Another study found that self-compassion predicts changes in depression symptoms and illness intrusiveness in participants with CP (Ziemer, Fuhrmann, & Hoffman, 2017). Nevertheless, more studies on the role of self-compassion in CP are needed in order to unequivocally establish this psychological process as a relevant one in psychological interventions for CP. More specifically, there is still a knowledge gap on how self-compassion might operate and influence the impact of other psychological processes on depressive symptoms in CP. Overall, self-compassion is postulated to counter the nefarious effects of negative psychological processes, thus diminishing psychological suffering and psychopathology (MacBeth & Gumley, 2012; Gilbert, 2010), even though to our knowledge this has not been tested in CP.

The current study has two main aims: 1) to test whether cognitive fusion mediates the relationship between pain intensity and depressive symptoms in CP; 2) to test if self-compassion emerges as a moderator of the mediation relationship between cognitive fusion and depressive symptoms. We expect cognitive fusion to mediate the relationship between pain intensity and depressive symptoms, and that self compassion moderates the mediation.

METHOD

Participants

A convenience sample of 231 Portuguese women diagnosed with a CP condition was collected online via three national CP associations. The online platform (Limesurvey) was allocated to an academic server. Participants could access the study platform through the link advertised by the CP associations. Once accessed, participants could start responding a set of sociodemographic items, medical questions and self-report instruments. The platform private content (settings, responses and statistics) could only be accessed through a private username and password which only the first author of the study had access to. Inclusion criteria: a) having constant or sporadic pain for more than three months; b) being more than 18 years of age; c) being able to read and write Portuguese; d) having access to an online device in order to complete the battery of questionnaires. Participants were not compensated for participating in the study.

Our sample had a mean age of 48.51 (SD = 10.89). The majority of participants had a high school (*n* = 73; 31.6%) or bachelors (*n* = 88; 38.1%) degree, and were married (*n* = 150; 64.9%). Additionally, a great portion of our sample was employed (*n* = 153; 66.2%). All information was self-reported, including CP diagnosis. Almost all participants reported having been previously diagnosed with a CP condition by a medical doctor (*n* = 224; 97%), of which the majority by a rheumatologist (*n* = 183; 79.2%). Fibromyalgia was the most common diagnosis in our sample (*n* = 204; 88.3%), followed by low back pain (*n* = 33; 14.3%) and Arthrosis (*n* = 30; 13%). It is worth noting that participants could report more than one CP condition. The majority of participants presented CP for more than 10 years (*n* = 128; 55.4%) or from 5 to 10 years (*n* = 54; 23.4%). Also, the majority of participants were receiving pharmacological treatment for CP (*n* = 208; 90.0%), and more than half of participants had at least another comorbid chronic illness (*n* = 122; 52.8%). Finally, participants reported sleep-related difficulties, such as waking up several times during the night (60.2%) and difficulty in falling asleep (more than 30 minutes) (18.6%).

Procedures

This study is part of a larger one that aims to explore the role of several psychological processes in the etiology of psychopathological symptoms in CP.

Five nationwide CP associations were contacted via email and/or facebook private message, and were invited to collaborate by advertising the study through their mailing list contacts and/or facebook pages. Three CP associations agreed to collaborate and were given a direct link to the online protocol. The protocol was accessed by 479 participants, of which 246 completed the battery of questionnaires (51%). We have excluded from our sample 15 participants who completed the questionnaires: 9 men and 6 Brazilian women, in order to have a homogenous sample in terms of gender and nationality. Our final sample was composed of 231 female Portuguese participants. Information regarding the aims of the study and the target population was provided, as well as assured the voluntary nature of participation and confidentiality of data (in the information sheet, the research team stated their commitment to a) guarantee total confidentiality of data provided; b) to use the data strictly for the purposes of the current research). Participants provided informed consent by clicking on the “I accept to participate in the study” button.

The current study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of University of Coimbra, Portugal.

Measures

Numeric Pain Rating Scale (NPRS; Hartrick, Kovan, & Shapiro, 2003; Ferreira-Valente, Pais-Ribeiro, & Jensen, 2011) is an 11-point scale (0 = ‘‘No pain’’; 10 = ‘‘Worst imaginable pain’’). Respondents select the number that best represents their pain intensity. In our study, a composite variable of “average pain intensity” was created by three items: 1) pain currently experienced; 2) highest pain experienced in last 24h; 3) lowest pain experienced in last 24h. Results showed an internal consistency of α = .85.

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995; Ribeiro, Honrado, & Leal, 2004) is a 21-item measure depression, anxiety and stress symptoms (e.g. “I felt down-hearted and blue”, “I felt that life was meaningless”). The items are rated on a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time). In the original study, the subscales had excellent internal consistency (α = .91 for depression; α = .84 for anxiety; α = .90 for stress). Given the amount of evidence for the relationship between CP and depression, we aimed to exclusively focus on the processes underlying this relationship. The current study found a good internal consistency (α = .93) for the depression subscale.

Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014; Pinto-Gouveia, Dinis, Gregório, & Pinto, 2018) is composed of 7-items and has a one-factor structure that assesses the tendency to get entangled with internal experiences (cognitive fusion) (e.g. “I get upset with myself for having certain thoughts”, “I struggle with my thoughts”, “I tend to get very entangled in my thoughts”). The items are rated in a 7-point scale (1= "never true"; 7 "always true"). Higher score means greater cognitive fusion. The original study presented a good internal consistency (α between .88 and .93 across five samples). The current study found an internal consistency of α = .97.

Self-Compassion Scale-Short form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011; Castilho, Pinto-Gouveia, & Duarte, 2015) is a 12-items version of the larger 26-items self-compassion scale (Neff, 2003) designed to measure self-compassion (e.g. “I try to see my failings as part of the human condition”, “I try to be understanding and patient towards those aspects of my personality I don’t like”). Items are rated on a 5-point scale (1 = almost never; to 5 = almost always). The factor structure of SCS has been an ongoing topic of discussion, with several studies providing evidence for a one- or six-factor structure (overall self-compassion, or self-kindness, common humanity, mindfulness, self-judgment, isolation and over-identification) (Neff, 2003), and others suggesting the possibility of using SCS as a two-factor structure: one assessing a *self-compassionate* attitude (SCS-Pos: a composite of self-kindness, common humanity and mindfulness) and one measuring a *self-critical* attitude (SCS-Neg: that results from the sum of self-judgment, isolation and over-identification) (Muris & Petrocchi, 2017). The original study of the short form of SCS found an internal consistency of α = .86 for one-factor structure (Raes et al., 2011). We followed Muris & Petrocchi (2017) and used the subscale SCS-Pos as a measure of self-compassion, which showed good internal consistency (α = .80).

Data analysis

Statistical assumptions and Pearson´s correlation coefficients were analyzed using SPSS® (v. 23; IBM Corporation, Armonk NY, USA) for Mac®. We conducted both bivariate and partial correlations, controlling for age and education level, and the significance of associations did not differ. Thus, we will only report bivariate correlations.

To test our moderated mediation model, we used the SPSS PROCESS macro, as it allows to simultaneously test mediation and moderation effects (Hayes, 2013). We tested Model 14, in which pain intensity (NPRS) is the predictor, depression symptoms (DASS) the dependent variable, cognitive fusion (CFQ) the mediator and self-compassion (SCS-Pos) the moderator of the relationship between cognitive fusion and depression symptoms. A mediation – also known as indirect effect – occurs when the effect of an independent variable on a dependent variable occurs through its effect on a mediator (Hayes, 2013). A moderation occurs when an independent variable and a moderator interact, and this interaction influences a dependent variable (Hayes, 2013).

In order to test the significance of the moderation slopes, an online calculator (https://psychology.victoria.ac.nz/modgraph/onlinecontcomp.php) was used to perform simple slope computation of the moderation model. The simple moderation model estimates the effect of the interaction between cognitive fusion and self-compassion on depressive symptoms on each level of self-compassion (mean, +/- 1 SD). A moderation is considered when this interaction significantly predicts the dependent variable (in this case, depressive symptoms). The mediation was calculated using a 5000 Bootstrap sampling (Hayes, 2013), with 95% confidence level and Bias Corrected method. Indirect effect is considered significant if the upper and lower bound of the bias corrected confidence interval (BCCI) do not contain zero (Hayes, 2013).

RESULTS

Preliminary Data Analyses

All variables presented acceptable values of skewness and kurtosis (SK< |3| and Ku< |8-10|) (Tabachnick & Fidell, 2014), suggesting no severe violation of normality. In addition, there were no outliers. Finally, there were no missing data as the online protocol did not allow submitting incomplete questionnaires.

Descriptive analyses

Mean and standard deviation results are depicted in Table 1.

Table 1

Mean (M) and Standard Deviation (SD) of all variables, and Pearson moment correlation between all variables in the total sample (N = 231)

			Correlations		
Measures	*M*	*SD*	NPRS	CFQ	SCS-Pos
1. NPRS	5.69	1.77	-	-	-
2. CFQ	27.55	11.21	.21**	-	-
3. SCS-Pos	18.83	5.84	-.09	-.51***	-
4. DASS-Dep	8.05	5.84	.24***	.76***	-.55***

Note. *** p <.001; ** p <.005;

NPRS = Numeric Pain Rating Scale; CFQ = Cognitive Fusion Questionnaire; SCS-Pos = Self-compassion Scale – Positive subscale; DASS-Dep (depression, anxiety and stress scale – depression subscale)

Mean results showed participants presented normal levels of depressive symptoms, and moderate pain intensity. Additionally, although to our knowledge there is not normative data for interpreting levels of cognitive fusion and self-compassion in CP, results were similar to those reported in samples with physical or clinical conditions.

Correlation analyses

Results from correlation analyses are depicted in Table 1. Given that participants had a wide range of ages (Min = 21; Max = 73) and levels of education (Min = primary; Max = doctorate), we conducted correlation analyses between age and levels of education and all variables studied. Results only showed significance of correlation between level of education and NPRS (r = -.242, p < .001), and between level of education and CFQ (r = -.178, p = .007). Results from partial correlation (controlling for level of education) did not differ in significance nor magnitude from bivariate correlations, thus we will only report the latter. Results showed that pain intensity was significantly and positively associated with cognitive fusion and depressive symptoms. Additionally, self-compassion was significantly and negatively correlated with cognitive fusion and depressive symptoms, and cognitive fusion was significantly and positively associated with depressive symptoms. Pain intensity did not correlate significantly with self-compassion.

Moderated mediation analyses

A moderated mediation model was used to test if cognitive fusion mediates the association between pain intensity and depressive symptoms, while simultaneously testing if this mediation was moderated by self-compassion (see Figure 1).

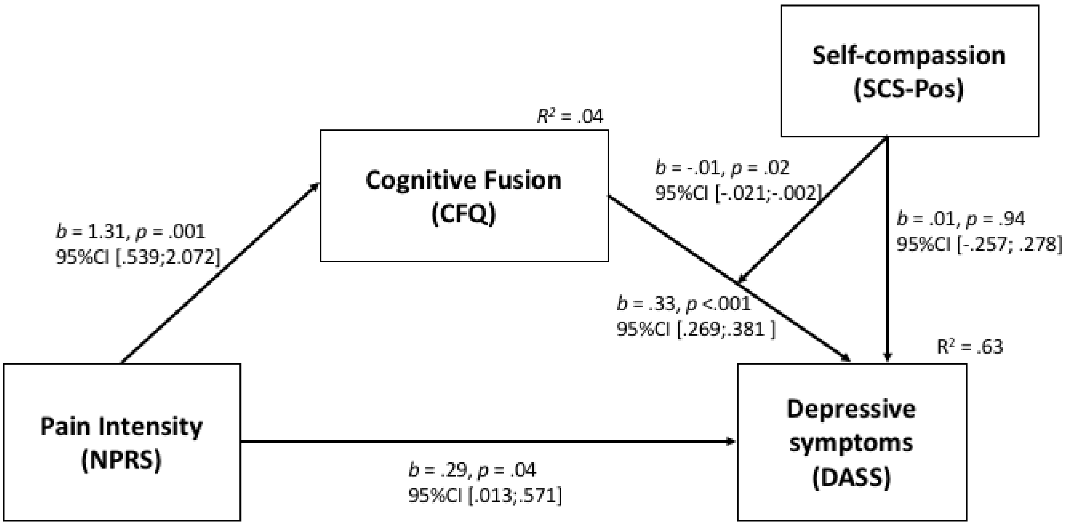

Figure 1. moderated mediation model

Results showed the model explained 63% of the variance in depressive symptoms. The association between pain intensity and depressive symptoms was mediated by cognitive fusion, and this relationship was moderated by self-compassion, as hypothesized. In order to further examine the significance of simple slopes of the interaction, a simple moderation model was firstly conducted, and results showed the interaction was significant (*b* = -.01, *SE* = .005, *t* = -2.282, p = .023, 95%IC = -.021/-.002). These results suggest that the association between cognitive fusion and depressive symptoms is contingent of self-compassion. A visual representation of the moderation was then conducted using mean centered values of CFQ (M = 0; SD = +/-11.21) and SCS-Pos (M = 0; SD = +/- 4.50) (see Figure 2)

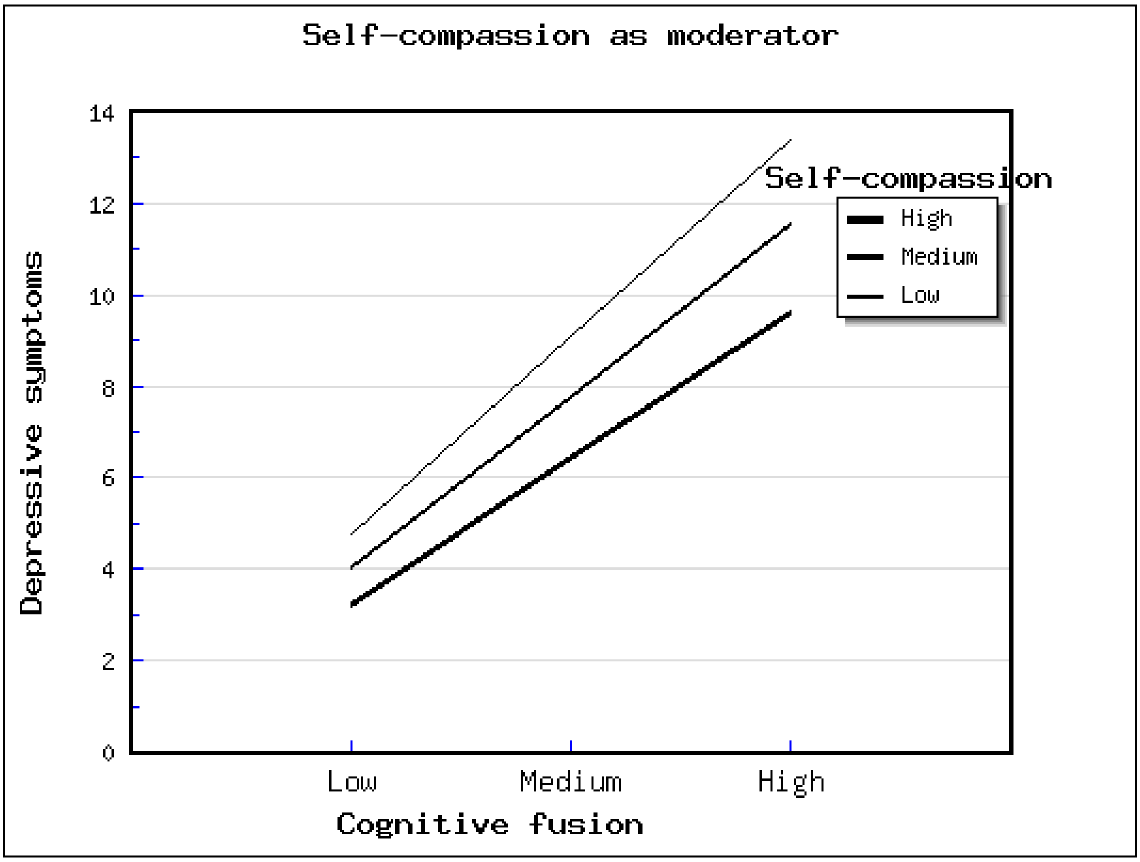

Figure 2. The moderator effect of self-compassion between cognitive fusion and depressive symptoms

In order to examine if the interaction was significant at all levels of self-compassion, simple slopes computations were conducted. Results show that the interaction was significant for high (t = 7.510, p <.001), medium (t = 10.587, p <.001) and low (t = 10.314, p <.001) levels of self-compassion.

Additionally, in order to examine the increase in variance in depression symptoms explained by the model, we progressively estimated our model: a simple regression (NPRS predicting DASS-Dep) explained 6% of depressive symptoms (R^2= .057; b = .788, p = .000), followed by a simple mediation model (CFQ mediating the association between NPRS and DASS-Dep) that explained 58.3% of depressive symptoms (R^2= .583; b = .504, p = .002). Thus, when cognitive fusion is added to the model, there is a 52.3% increase in the explanation of depressive symptoms.

DISCUSSION

The comorbidity of CP and depression is widely recognized (e.g. Jobski et al., 2017; McDonald et al, 2016). Nevertheless, there is still a lack of evidence on why some individuals with CP develop depressive symptoms while others do not. The current study set out to add empirical data to this ongoing discussion, testing a moderated mediation model in which cognitive fusion operates as a mediator between pain intensity and depressive symptoms, while self-compassion moderates the relationship between cognitive fusion and depressive symptoms.

Results from correlation analyses corroborated the existing literature. Specifically, results showed that pain intensity was significantly and positively correlated with cognitive fusion and depression symptoms, which supports previous research on the relationship between cognitive fusion and mental health in CP (McCracken et al., 2014; Scott et al., 2016). Although these result show that pain intensity and depressive symptoms are significantly correlated, the association is small. It is also of note that on average, participants had moderate levels of pain intensity, and sub-clinical levels of depressive symptoms. It is possible that higher levels of depressive symptoms would yield a greater association between pain and depressive symptoms. In contrast, the result could be interpreted as support for the hypothesis that depression in CP populations is more strongly influenced by other psychological factors than by pain itself (e.g. Gatchel et al., 2007).

Additionally, results showed that cognitive fusion is significantly and positively correlated with depressive symptoms, while negatively associated with self-compassion. Although there are theoretical (Neff & Tirch, 2013) and empirical grounds (Gillanders et al., 2015) for expecting the negative association between cognitive fusion and self-compassion, this has not been extensively studied CP. The correlation between pain intensity and self-compassion, although was in the theoretically expected direction, was not significant.

Self-compassion is a relatively new construct in CP literature, and only a few studies have explored its role in CP responding. Research has explored its role on the development of affective and cognitive symptoms in CP (Costa & Pinto-Gouveia, 2011a; Wren et al., 2012), rather than its impact on and/or association with pain intensity. Nevertheless, this non-significant finding is interesting in itself, as it suggests a complex pattern of relationship between variables.

Indeed, we further estimated a conceptualized model of moderated mediation, in which cognitive fusion mediated the relationship between pain intensity and depressive symptoms, while self-compassion moderated this relationship. Results supported the hypothesized model, and explained 63% of depressive symptoms. Cognitive fusion played an important role in the association between pain intensity and depressive symptoms: by testing the mediation model progressively, results showed that adding cognitive fusion to the model increases 52.3% on the explanation of depressive symptoms. This further supports the consensus that CP is a multifactorial condition, in which psychological processes play a considerable role (e.g. Gatchel et al., 2007). Indeed, our data suggest that depressive symptoms in chronic pain are greatly influenced by the degree to which a person becomes entangled with their thoughts, emotions and/or physical sensations, rather than experiencing them as transient experiences.

Additionally, the estimated model shows that self-compassion significantly moderates the association between cognitive fusion and depressive symptoms, and this moderation occurs at all levels of self-compassion. Indeed, results show that when considering individuals in the same range of cognitive fusion, those who present higher levels of self-compassion also present lower levels of depressive symptoms. Although drawing causality from this study is unwarranted, a tentative interpretation is that being able to react kindly and with warmth to perceived personal flaws and shortcomings seems to buffer the pervasive impact of being entangled with internal experiences (e.g. thoughts, emotions, physical sensations) on depressive symptoms, which echo similar results in cancer patients (Gillanders et al., 2015).

These findings have several clinical implications. The data suggest that attempts to reduce pain intensity as a way of improving mood would be a relatively weak treatment target. In contrast, reducing cognitive fusion and improving self-compassion would be likely to lead to improvements in mood. Acceptance- and mindfulness-based interventions have good evidence for their utility in chronic pain populations, influencing a range of outcomes including depressed mood (Hann & McCracken, 2014; Veehof et al., 2016). Interventions in CP may benefit from introducing deliteralization techniques as a way of interrupting the fusion with language-focused processes (Blackledge, 2007), as well as mindfulness meditation practices in order to promote distancing from and acceptance of internal experiences (McCracken & Vowels, 2014). Whilst self-compassion is often an important aspect of acceptance and mindfulness based interventions, little empirical work exists exploring more explicit compassion-based interventions in CP (Purdie & Morley, 2016). The current study suggests that interventions targeting self-compassion could be helpfully applied in CP settings. In order to promote self-compassion, therapists might consider introducing loving-kindness meditation, "Tonglen" meditation practice (Chapin, Darnall, Seppala, Doty, Hah, & Mackey, 2014) and self-compassionate imagery through compassionate mind training exercises (Parry & Malpus, 2017). Future research should consider expanding these results by exploring other potentially relevant variables. For example, future studies in CP should explore the impact of cognitive fusion in quality of life and adaptation to CP, as well as its relationship with experiencing obstacles to valued-guided actions. Also, studies might move the conversation further by conducting experimental designs aiming at studying the relationship between cognitive fusion, self-compassion and behavioral outputs, such as avoidant behavior and fear of movement (kinesiophobia). Future studies should also consider testing the acceptability and impact of compassion-based interventions for CP, particularly with designs that allow the measuring of the specific impact of adding self-compassion exercises in acceptance- and mindfulness-based intervention for CP.

Several limitations should be considered. Firstly, this is a cross-sectional study, which prevents us from drawing conclusions regarding causality. Further studies should seek to replicate the conceptualized model in a longitudinal design, which would allow a causal test of these mediation and moderation relationships. Additionally, although our goal was to measure depressive symptoms rather than depression as a clinical diagnosis, mean levels of depressive symptoms in our sample were sub-clinical, meaning that generalizing our results to clinically depressed patients should be done cautiously, until replication of this study with participants who report more depressive symptoms. A further limitation is that our sample was all female, which makes generalization to other genders unwarranted.

This study found that the association between pain intensity and depressive symptoms is mediated by cognitive fusion, which suggests that the route from pain to depression is significantly related to being entangled with internal experiences (e.g. thoughts, emotions, physical sensations) instead of experiencing them as transient mental events. Also, the current study provided evidence that the association between cognitive fusion and depressive symptoms is moderated by one´s ability to respond kindly and with warmth to perceived personal difficulties and shortcomings. This seems to provide preliminary support for the promotion of self-compassion skills in psychological interventions for CP.

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Study IV - Mindfulness, self-compassion and depressive symptoms in chronic pain: the role of pain acceptance

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Mindfulness, self-compassion and depressive symptoms in chronic pain: the role of pain acceptance

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Abstract

Objective(s): To test a theory driven model in which pain acceptance (both pain willingness and activity engagement) mediates the relationships of mindfulness and self-compassion with depressive symptoms, while controlling for pain intensity.

Method: A path analysis was conducted using AMOS software to test a mediational model in a sample of women with chronic musculoskeletal pain (N = 231).

Results: Participants with higher levels of mindful awareness and self-compassion presented lower levels of pain intensity and depressive symptoms, and higher levels of activity engagement. Pain willingness did not significantly correlate with any variable in study. The mediation analysis showed that activity engagement mediated the relationship between self-compassion and depressive symptoms, independently from pain intensity.

Conclusions: These findings seem to corroborate the hypothesis that self-compassion is rooted in a motivational system, as it seems to correlate with less depressive symptoms through increasing the engagement with valued actions despite experiencing pain.

Key-words: chronic pain; mindfulness; self-compassion; pain willingness; activity engagement; depressive symptoms.

INTRODUCTION

Chronic pain (CP) is a debilitating medical condition defined as constant or sporadic pain for at least three months (Elliot, Smith, Penny, Smith, & Chambers, 1999) that affects 12% to 30% of the population (Breivik, Collett, Ventafridda, Cohen, & Gallacher, 2006). It negatively impacts quality of life and is associated with significant disability (e.g. Breivik, Eisenberg, & O'Brien, 2013; Gatchel & Okifugi, 2006) and with depressive symptoms (Bair, Robinson, Katon, & Kroenke, 2003; Elliot, Renier, & Palcher, 2003; Ohayon & Schatzberg, 2010). Indeed, studies seem to suggest that having CP leads to depressive symptoms (see Wörz, 2003 for a review), and this seems to be influenced by psychological factors (see Gatchel, Peng, Peters, Fuchs, & Turk, 2007 for a review).

In the last two decades, acceptance of pain has emerged as an important psychological process for understanding the adaptation to CP and the course of symptomatology. Acceptance of pain is the acknowledgement that one experiences pain without attempting to unproductively control it, while being committed to engage in valued actions despite pain (McCracken, 1998). Research on pain acceptance has been conducted using this conceptualization, which implies two different domains underlying pain acceptance: 1) pain willingness, which is the overall openness to experience pain, and 2) activity engagement, the ability to commit to and engage in valued actions despite feeling pain (McCracken, Vowles, & Eccleston, 2004). Indeed, acceptance is a complex process that is more than a mental approach to internal experiences, but rather involves the active engagement with values-based daily activities in the presence of pain (McCracken & Eccleston, 2003; McCracken et al., 2004). There is growing evidence that the behavioural aspect of acceptance of pain is related to therapeutic changes (Jensen, Smith, Alschuler, Gillanders, Amtmann, & Molton, 2016; Rovner, Årestedt, Gerdle, Börsbo, & McCracken, 2014), and is negatively associated with depressive symptoms (Bendayan, Esteve, & Blanca, 2012) and with pain interference and severity (Fish, Hogan, Morrison, Stewart, & McGuire, 2013). Research on pain acceptance suggests that individuals who have higher levels of pain acceptance are more likely to respond adaptively to pain (e.g. maintaining meaningful activities), even when controlling for depression and pain intensity (e.g. McCracken, Spertus, Janeck, Sinclair, & Wetzel, 1999; McCracken, Vowels, & Eccleston, 2005). Furthermore, acceptance of pain is prospectively associated with better emotional, social and physical functioning (McCracken & Eccleston, 2005), less depressive symptoms in individuals with disabilities (Jensen et al., 2016), less disability (Cook et al., 2015), and it mediates the effect of a mindfulness- and acceptance-based intervention for CP on physical functioning (Cederberg, Cernvall, Dahl, von Essen, & Ljungman, 2016). Nevertheless, although there is mounting evidence for the beneficial role of pain acceptance in CP, few studies have explored the potentially distinct roles that pain willingness and activity engagement might play in the relationship between depressive symptoms and other acceptance-related processes.

Mindfulness has been defined as a way of purposely and non-judgmentally paying attention to the present moment (Kabat-Zin, 2002), that may produce adaptive and flexible ways of responding to the context, instead of being entangled and over-identified with internal experiences (e.g. thoughts, emotions, physical sensations) (Shapiro, Carlson, Astin, & Freedman, 2006). Indeed, literature suggests that mindfulness promotes the non-judgmental acceptance of experience by letting go of one´s thoughts and emotions, and the ability to see them as transient moment-to-moment experiences (Baer, 2003; Bishop et al., 2004; Kabat-Zinn, 1990). Research shows that mindfulness decreases the risk of depression relapse (Michalak, Heidenreich, Meibert, & Schulte, 2008), and reduces depressive symptoms (see Hofmann, Sawyer, Witt, & Oh, 2010), particularly in chronic illnesses (see Bohlmeijer, Prengera, Taala, & Cuijpers, 2010 for a review). Although there is mounting evidence of the benefits of mindfulness in CP (see Hilton, et al., 2017 for a meta-analytic review), fewer studies investigated the mechanisms via which mindfulness operates, as well as which aspects of mindfulness lead to its benefits. However, some studies suggest that mindfulness-based interventions for CP promote acceptance of pain (e.g. Henriksson, Wasara, & Ronnlund, 2016), and indeed some have proposed that the acceptance of pain is an important process of change in mindfulness- and acceptance-based interventions for CP (e.g. McCracken & Vowles, 2014), which has been empirically supported (e.g. Day & Thorn, 2016). In fact, these studies corroborate the theoretical assumption that mindfulness, by promoting the contact with the present moment, is a useful tool for fostering acceptance of pain (Dahl, Luciano, & Wilson, 2005; Dahl & Lundgren, 2006). Nevertheless, a comprehensive model of how mindfulness relates to different domains of pain acceptance remains unexplored in CP.

Recently, there has been a growth of studies into self-compassion and its impact on mental and physical health. Several studies suggested that self-compassion promotes a range of adaptive behaviours (Sirois, Kitner, & Hirsch, 2015), and is associated with well-being, resilience to stress, and with less depressive and anxiety symptoms (see MacBeth & Gumley, 2012). Self-compassion is described as the ability to be open to one´s suffering, combined with a kind motivation to alleviate it (Neff, 2003). This emotional self-regulatory skill is postulated to stem from an attachment-related evolutionary system (Gilbert, 2005) and has recently been proposed to be a relevant process in CP conceptualization (Vowles, Sowden, & Ashworth, 2014). Although this literature is in its infancy, there is growing evidence that self-compassion is associated with less emotional distress, depressive symptoms, and negative affect in CP (Costa &

Pinto-Gouveia, 2011; 2013; Wren et al., 2012). Additionally, increases in self-compassion predicted a decrease in depression after an acceptance-based intervention for CP (Vowles, Witkiewitz, Sowden, & Ashworth, 2014). Nevertheless, the role of self-compassion in CP is not well understood, though it is an important process in other chronic illnesses. For example, self-compassion promotes better adaptation to and less depletion from illness (Terry & Leary, 2011), and it buffers the impact of threatening illness cognitions on anxiety, depression, and avoidance coping in cancer (Gillanders, Sinclair, MacLean, Jardine, 2014).

There is still much to learn on how mindfulness and self-compassion overlap and differ. Indeed, although they both foster awareness and acceptance of the present moment (See Neff & Dahm, 2015 for a topical discussion), self-compassion is suggested to include an additional emphasis on affective and motivational components (i.e. a kind, caring and warm stance towards suffering and a desire to respond helpfully to that suffering) that mindfulness may not explicitly entail (Birnie, Speca, & Carlson, 2010). In relation to its motivational aspect, self-compassion encompasses an action-oriented attitude that can alter the experience of depressive symptoms (Pauley & McPherson, 2010). In the context of CP, this seems to raise the question of whether mindfulness and self-compassion are equally contributors to pain acceptance, or whether they relate to different aspects of pain acceptance. Indeed, although both mindfulness and self-compassion seem to foster acceptance (Neff & Dahm, 2015), one might hypothesize that self-compassion, due to its action-oriented nature (Gilbert, 2005; Pauley & McPherson, 2010), would be a stronger predictor of activity engagement. Moreover, self-compassion seems to be a stronger predictor (than mindfulness) of depression severity (Van Dam, Sheppard, Forsyth, & Earleywine, 2011), and it uniquely predicts (while controlling for mindfulness) post-traumatic stress disorder symptoms in war veterans (Dahm, Meyer, Neff, Kimbrel, Gulliver, & Morissette, 2015).

It is clear that both mindfulness and self-compassion have been shown to be potentially useful to advance our understanding of how people respond to CP. However, is not yet clear how these constructs overlap, how they are distinct, and how they relate with acceptance of pain to predict depressive symptoms in CP. Specifically, since acceptance of pain encompasses both attitudinal (pain willingness) and behavioural (activity engagement) aspects, it is worth exploring the distinct role these aspects of pain acceptance play on the relationship between mindfulness, self-compassion, and depressive symptoms in CP. The aim of this study is therefore to test the mediating role of pain willingness and activity engagement in the relationship between mindfulness and self-compassion, and depressive symptoms, while controlling for pain intensity. As this is a cross-sectional study, controlling the effect of pain intensity on depressive symptoms will allow us to test the relationship between psychological processes and depressive symptoms independently from the role of pain intensity.

METHOD

Participants

The current study was conducted in a convenience sample that comprises 231 Portuguese women with CP. Recruitment was online via three national CP associations. Inclusion criteria include: a) having constant or sporadic pain, unrelated to oncological disease, for three months or more; b) age above 18 years; c) having access to an online device in order to complete the battery of questionnaires. Participants had a mean age of 48.51 (*SD* = 10.89). The majority of participants completed high school or above (*n* = 195; 84.4%), and were married (*n* = 150; 64.9%). The CP condition was previously established by a physician, and the most common diagnosis was Fibromyalgia (*n* = 204; 88.3%), followed by lower back pain (*n* = 33; 14.3%) and Arthrosis (*n* = 30; 13%). The majority of participants presented CP for more than 10 years (*n* = 128; 55.4%) or from 5 to 10 years (*n* = 54; 23.4%), and reported having other chronic illnesses (*n* = 122; 52.8%).

Procedure

The current study was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of University of Coimbra, Portugal (January 12th 2017).

To recruit the sample, five nationwide CP associations were invited to collaborate. Three CP associations replied and agreed to collaborate by advertising the study to their mailing list. The study was accessed by 479 participants, of which 246 completed the battery of questionnaires (51%). Nine men and six non-Portuguese women were excluded from the study, to allow a gender- and nationality-wise homogeneous sample. Data was collected between February and April of 2017.

Information regarding the aims of the study and the target population was provided, and the voluntary nature of participation and confidentiality of data was assured. All participants provided informed consent.

Measures

Numeric Pain Rating Scale (NPRS; Hartrick, Kovan, & Shapiro, 2003) is a self-report measure that assesses pain intensity in a 11-point scale (from 0 = ‘‘No pain’’ to 10 = ‘‘Worst imaginable pain.’’). Respondents select the single number that best represents their pain intensity. NPRS was previously translated and validated for the Portuguese population (Ferreira-Valente, Pais-Ribeiro, & Jensen, 2011). A single score of “average pain intensity in the last 24h” was created from ratings of: 1) current pain; 2) highest pain in last 24h; 3) lowest pain in last 24h. Results showed an internal consistency of $\alpha = .85$.

Chronic Pain Acceptance Questionnaire-8 (CPAQ; McCracken et al., 2004) is a self-report measure of acceptance of pain, assessed on a 7-point scale (0 = never true; 6 = always true), that comprises two components of acceptance: pain willingness (PW) (i.e. the extent to which a person is willing to be with pain without attempts to avoid it) and activity engagement (AE) (i.e. engaging in daily activities despite having pain). The original version is composed of 20-items (McCracken et al., 2004) that was recently reduced to a shorter 8-items version (Fish, McGruire, Hogan, Morrison, & Stweart, 2010) with the same two-factor structure (Fish et al., 2013), and is valid, reliable and able to detect rehabilitation changes (Rovner et al., 2014). In the current study, we used the shorter 8-item version. Results from Cronbach's alpha were CPAQ-PWα = .67 and CPAQ-AEα = .85.

Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) is a 15-item self-report measure that assesses attention and awareness of present moment daily activities as a trait quality of mindfulness, using a 6-point Likert scale (1 = almost always; 6 = almost never). MAAS presents good internal consistencies, both in its original study (α = .84) (Brown & Ryan, 2003) and in its Portuguese validation study (α = .90) (Gregório & Pinto-Gouveia, 2013). The current study found acceptable values of Cronbach's alpha (α = .92).

Self-Compassion Scale-short form (SCS; Raes, Pommier, Neff, & Van Gucht, 2013) is a 12-item version of the original 26-item version of SCS (Neff, 2003), which was developed to measure self-compassion on a 5-point Likert self-report scale (1 = almost never; to 5 = almost always). Although SCS is traditionally used as a one-factor (overall self-compassion) or six-factor scale (self-kindness, common humanity, mindfulness, self-judgment, isolation and over-identification) (Neff, 2016; Neff, Whittaker, & Karl, 2017), there has been new data suggesting that SCS can be used as a two-factor scale: one assessing a *self-compassionate* attitude (a composite of self-kindness, common humanity, and mindfulness) and one measuring a *self-critical* attitude (that results from the sum of self-judgment, isolation, and over-identification) (e.g. López et al., 2015; Costa, Marôco, Pinto-Gouveia, Ferreira, & Castilho, 2016). The current study follows the latter factor structure, and is only focused on the self-compassionate attitude, which will be used throughout this study as self-compassion. The current study found good internal consistency (α = .80).

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995) is a self-report instrument that assesses symptoms of depression, anxiety and stress over the last week, through 21 items rated on a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time). The Portuguese validation study found good internal consistency (Pais-Ribeiro, Honrado, & Leal, 2004). For the purpose of the current study, only the depression subscale was introduced in data analyses. The current study found a good internal consistency (α = .93).

Data analysis

Descriptive and correlational analyses were conducted using IBM SPSS Statistics v.21. To explore the adequacy of the data, preliminary data analyses were performed. Pearson product-moment correlation coefficients were calculated to explore the associations between pain intensity, pain willingness, activity engagement, mindful awareness, self-compassion, and depressive symptoms.

Path analysis was performed using AMOS software to explore the mediator role of pain willingness and activity engagement on the relationship between mindfulness and self-compassion, and depressive symptoms, while controlling for pain intensity. Path analysis allows the simultaneous examination of structural relationships, as well as the examination of direct and indirect paths. In order to assess the model overall fit, the following goodness-of-fit measures and recommended cut-points were used (Kline, 2005): Normed Chi-Square ($\chi2$/d.f. < 5, acceptable fit, < 2, good fit; Arbuckle, 2008), Comparative Fit Index (CFI ≥ .90, acceptable, and ≥ .95, desirable; Hu & Bentler, 1999), Tucker-Lewis Index (TLI ≥ .90, acceptable, and ≥ .95, desirable; Hu & Bentler, 1999), Goodness of Fit Index (GFI ≥ .90, good, and ≥ .95, desirable; Jöreskog & Sörbom, 1996), Root Mean Square Error of Approximation (RMSEA ≤ .05, good fit; ≤ .08, acceptable fit; Kline, 2005) with a 95% confidence interval. Differences between the initial model (all paths included) and re-specified model (only significant paths included) were assessed by calculating $\chi2$ difference test. Models do not differ if the $\chi2$ difference is non-significant (Koufteros & Marcoulides, 2006). Maximum Likelihood estimation method was chosen as it allows for the estimation of all model path coefficients and to compute fit statistics. The significance of the mediation effects was analyzed using a bootstrap procedure (2000 resamples) with 95% bias-corrected confidence interval. An effect is considered significant at $p < .05$ if zero is not included in the interval between the lower and the upper bound (Kline, 2005).

RESULTS

Preliminary Data Analyses

Results from preliminary analysis suggested normal distribution of all variables, (skewness < |3| and kurtosis < |8-10|) and no concerns about multicollinearity (VIF <5; Kline, 2005). Although the Mahalanobis distance statistic (D^2) indicated the presence of some outliers, no extreme values were detected. This decision to retain outliers was based on the assumption that maintaining outliers makes the data more likely to be representative of the population under study (Kline, 2005; Tabachnick & Fidell, 2007).

Correlation analysis

Pearson product-moment correlation coefficients for all variables were computed (see Table 1).

Table 1.

Means, Standard deviations and pearson product-moment correlation coefficients between study's variables (N = 231).

Measures	M	SD	CPAQ_PW	CPAQ_AE	MAAS	SCS	DASS
CPAQ_PW	7.93	4.01	-	-	-	-	-
CPAQ_AE	12.58	5.23	-.06	-	-	-	-
MAAS	3.64	1.08	.05	.12	-	-	-
SCS	18.83	4.50	-.10	.40***	.31***	-	-
DASS_ Depression	8.05	5.84	-.12	-.43***	-.49***	-.55***	-
NPRS	5.69	1.77	-.08	-.21**	-.11	-.09	.24***

Note: **p*<.05 ** *p* <.01; *** *p* <.001;
CPAQ_PW = Chronic Pain Acceptance Questionnaire-pain willingness; CPAQ_AE = Chronic Pain Acceptance Questionnaire-activity engagement; MAAS= Mindfulness Attention Awareness Scale ; SCS = ; Self-compassion Scale; DASS_Depression = Depression, Anxiety and Stress Scales; NPRS= Numeric Pain Rating Scale

Results show that activity engagement has a positive and moderate association with self-compassion, but no significant association with mindful awareness. Moreover, activity engagement presented negative associations with depressive symptoms and pain intensity. While the association with depressive symptoms was moderate, the one with pain intensity was low. Mindful awareness and self-compassion were also positively and moderately related to one another, and displayed negative and moderate associations with depressive symptoms, but not with pain intensity. Pain intensity presented a positive and low correlation with depressive symptoms. Finally, pain willingness did not correlate significantly with any variable in study.

Path analysis: mediation analysis

A theory-driven model was built in order to test the mediation roles of pain willingness and activity engagement in the relationships of mindfulness and self-compassion with depressive symptoms, while controlling for pain intensity. Results showed the initial model presented overall acceptable fit ($\chi 2$/d.f. = 3.47; CFI = .96; TLI = .83; GFI = .98; RMSEA = .10, $p = .06$). Also, the initial model presented the following non-significant paths: mindful awareness → activity engagement ($b = .000$, $p = .995$); mindful awareness → pain willingness ($b = .023$, $p = .211$), and self-compassion → pain willingness ($b = -.093$, $p = .111$). These paths were, then, progressively eliminated from the model, and we ended up with a reduced ("trimmed") model, only with significant paths (see Figure 1).

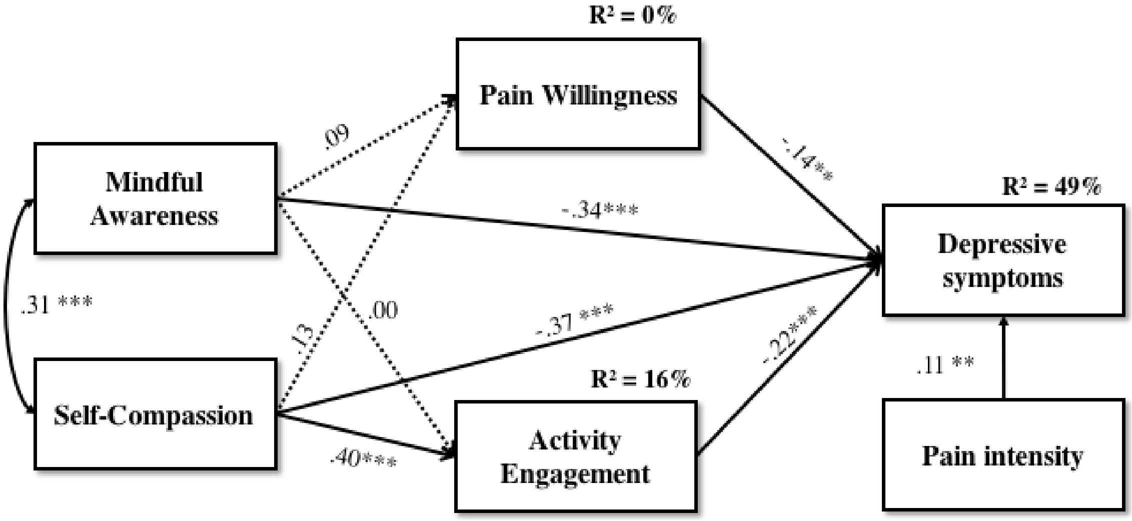

Figure 1. Path Model ($n = 231$).

Note. $^{**}p \leq .01$; $^{***}p \leq .001$; Standardized path coefficients among variables are presented. Doted lines represent non-significant path coefficients.

The final model presented an acceptable model fit ($\chi2$/d.f. = 2.26; CFI = .96; TLI = .92; GFI = .98; RMSEA = .07, p = .168), and the chi-square difference test showed that it was significantly better fit than the initial model ($\chi2_{\mathrm{dif}}$ = 4.147 > $\chi2_{.95}$ (4) = .711). Although pain willingness was not significantly predicted by mindful awareness and self-compassion, we decided to maintain it in the model in order to control its contribution to the prediction of depressive symptoms. Results show that activity engagement mediated the relationship between self-compassion and depressive symptoms (β = -.089, 95% CI: -.151; -.043, p = .001), even though a direct path from self-compassion to depressive symptoms was still significant (β = -.476, 95%: -.471; -.258, p = .001). The total effect was significant (β = -.459, based on 95% CI: -.707; -.452, p = .002). Additionally, results show that self-compassion had a significant direct effect on activity engagement **(**β = .395, 95%: .318; .597, p = .001). Also, mindful awareness **(**β = -.128, 95%: -.434; -.219, p = .001), pain willingness (β = -.140, 95%: -.233; -.043, p = .003), activity engagement (β = -.248, 95%: -.336; -.114, p = .001), and pain intensity (β = .110, 95%: .009; .212, p = .035) were significant direct predictors of depressive symptoms.

The final model explained 16% of activity engagement and 49% of depressive symptoms.

DISCUSSION

The current study aimed to explore the mediating role of pain acceptance (pain willingness and activity engagement) on the relationship between mindful awareness and self-compassion, and depressive symptoms, while controlling for pain intensity.

Correlation analyses showed that participants who engage more in valued activities despite experiencing pain presented less depressive symptoms and pain intensity. This seems to be aligned with previous literature that shows that acceptance of pain is associated with less depression and pain intensity (e.g. McCracken et al., 1999;

McCracken et al., 2005), and that being willing to engage in valued activities despite pain is associated with less depressive symptoms (Bendayan et al., 2012). Interestingly, activity engagement was positive and significantly correlated with self-compassion, but not with mindful awareness. Indeed, self-compassion is proposed to involve acceptance (Neff & Dahm, 2015), and previous studies suggest that self-compassion is related to acceptance of pain (Costa & Pinto-Gouveia, 2011). Regarding the non-significant association with mindful awareness, the MAAS measures overall awareness, with only one item focusing on physical sensations and not specifically related to pain, whereas CPAQ is a content-specific measure of pain acceptance. Thus, being aware of common daily experiences does not necessarily imply being willing to engage in valued activities when experiencing pain. Additionally, mindful awareness and self-compassion were negatively associated with depressive symptoms. This seems to suggest that being aware of the present moment, as well as being able to establish a self-to-self relationship of kindness and warmth may be particularly relevant protective skills against depressive symptoms in CP. Also, results show that participants who engage less in valued daily activities have higher pain intensity. This seems to indicate that the level of pain intensity is a relevant aspect of the ability to accept pain and engage in meaningful daily activities. This is in line with previous research that overwhelmingly establishes that pain avoidance is a detrimental process in CP (e.g. McCracken & Samuel, 2007). These results seem to echo previous research on the importance of developing an accepting stance towards one´s pain experiences, as well as a compassionate attitude towards the self in order to lessen depressive symptomatology (e.g. McCracken & Vowels, 2014).

Results from correlation analyses showed that pain willingness did not significantly correlate with any variable in study. Although without reaching significance, results showed a surprising pattern of correlations between pain willingness and other variables, particularly a negative non-significant association with activity engagement and with self-compassion. Although this was non-significant and of low magnitude, it could suggest that the items from this subscale (pain willingness) might not have been interpreted by participants as they were designed to. To our knowledge, this pattern of non-significant correlations was not found in previous studies – although there were non-significant associations between pain willingness and pain interference (Day & Thorn, 2016) –, even though the Cronbach's alpha found in this study (α = .67) was similar to other studies using the same 8-items version of CPAQ (e.g. α = .69) (Fish et al., 2010). Perhaps after reversing the scores of PW as proposed by the original authors (Fish et al., 2010; McCracken et al., 2014), we ended up measuring a different phenomenon than pain willingness in our sample. When interpreting these results, it is worth having in mind that although the two-factor 8-items version of CPAQ has previously presented better model fit than its longer 20-items and its one-factor structure, values of TLI and CFI were still problematic (Rovner et al., 2014). Future studies should consider this when conducting models exploring separately both dimensions of pain acceptance.

Results from the path analysis showed that the relationship between self-compassion and depressive symptoms in our sample was mediated by acceptance-based activity engagement. This means that being kind to oneself and responding to difficult life situations with warmth and care towards the self (instead of self-judgment and harshness) is related to committing to and engaging in valued life activities despite pain, which in turn may result in having less depressive symptoms. One way of interpreting this result is by considering the definition of self-compassion: it involves not only a kind and warm response to personal suffering, but also a motivation to alleviate one´s suffering (Neff, 2003). Indeed, self-compassion seems to imply a motivation to action (Birnie et al., 2010; Gilbert, 2005), and this action-oriented motivation seems to be related to less depressive symptoms (Pauley & McPherson, 2010). This might explain why activity engagement, but not pain willingness, mediated the relationship between self-compassion and depressive symptoms. Indeed, being willing to experience pain does not necessarily imply having established a kind and warm stance towards perceived personal difficulties and setbacks, nor it implies engaging in actions that would alleviate one´s suffering.

Another interesting result from the path analysis was that pain acceptance (both pain willingness and activity engagement) did not mediate the relationship between mindful awareness and depressive symptoms. Mindful awareness only predicted depressive symptoms directly. One should be particularly cautious when interpreting these results and not extrapolate them to mindfulness as a whole. Although mindful awareness is a key element of mindfulness (Bishop et al, 2004; Brown & Ryan, 2003), mindfulness involves more that present moment awareness (Coffey et al., 2010). Nevertheless, one possible reading of these results is that CPAQ is a content-specific measure, while MAAS measures general present moment awareness. Indeed, it is possible that being mindfully aware relates to having less depressive symptoms, not because one accepts pain, but because it involves other processes. For example, one might conjecture that being more mindfully aware would lead to less fusion with internal experiences (e.g. thoughts, emotions, sensations) and less engaging in ruminative thinking, which in turn would lead to less depressive symptoms.

These results seem to suggest that engaging in valued activities despite experiencing pain is an important process through which self-compassion, but not mindful awareness, relates to having less depressive symptoms. This can be viewed in light of research suggesting that promoting self-compassion might be a behavioral activation approach (Veale, 2008). Indeed, it seems that both behavioral activation and compassion-inducing approaches share similar neural pathways related to positive emotions and reward systems (e.g. Longe et al., 2010; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008; Gawrysiak, Carvalho, Rogers, Nicholas, Dougherty, & Hopko, 2012), while mindfulness seems to operate through pathways related to executive functioning (e.g. Tang, Yang, Leve, & Harold, 2012; Tang, Hölzel & Posner, 2015).

Several limitations should be considered. Firstly, this study has a cross-sectional design, which precludes from establishing causal assumptions between variables. In order to do so, future studies should replicate our findings through a longitudinal or experimental design. Additionally, the sample was composed of women, which limits the generalization of the results to different genders. Further studies should consider using samples with mixed genders and explore whether differences do exist. Additionally, one should bear in mind that the pattern of non-significant correlations between pain willingness and other variables might be indicative that the items were not interpreted as they were designed to be in our sample. Although its internal consistency was similar to other studies, and it correlated in the expected direction with some variables in study, one should be mindful when reading these results. Finally, our model may be limited, as other (unmeasured) psychological processes might contribute to the relationships being tested. Specifically, personality traits (e.g. trait optimism, extraversion), psychological processes (e.g. catastrophizing, rumination, cognitive fusion), and particularly values-related processes (e.g. values awareness and committing to valued-actions) may play an important role, as persisting or avoiding daily activities in the presence of pain may involve being aware of personal motivations that anchor willingness.

Conclusions

Our results suggest the importance of promoting the development of a self-compassionate stance towards personal experiences, particularly difficult and painful ones in individuals who suffer from CP. Although developing mindful- and acceptance-based interventions for promoting engagement with meaningful daily activities (which in turn potentially decreases depressive symptoms) seems crucial, the development of a kind, caring, and warm attitude when facing difficulties (pain-related or otherwise) seem to uniquely contribute to engage in valued activities despite pain and to experience less depressive symptoms in those living with CP. Finally, given that acceptance-based interventions promote self-compassion (Yadavaia, Hayes, & Vilardaga, 2014), including in CP (Vowles et al., 2014; Wren et al., 2012), the effect of directly promoting self-compassion through targeted exercises in acceptance-based interventions for CP should be explored.

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The authors report no conflicts of interest

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Study V - Rumination and valued living in women with chronic pain: how they relate to the link between mindfulness and depressive symptoms

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Rumination and valued living in women with chronic pain: how they relate to the link between mindfulness and depressive symptoms

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Abstract

This study explores the mediating role of rumination and valued living in the relationship between mindfulness and depressive symptoms in a sample of women with chronic pain. Women with musculoskeletal chronic pain (N = 124) were recruited online through the advertisement of the study in several national associations for individuals with chronic pain. Participants responded a set of questionnaires that aimed to assess mindfulness, rumination, obstructions to and progress in valued living, and depressive symptoms. All variables were significantly associated in the expected directions. Results showed the relationship between mindfulness and depressive symptoms was fully mediated by rumination and experiencing obstructions in valued living, but not by difficulties in moving forward towards valued living. Clinical implications are discussed. Results seem to suggest the potential benefits of explicitly targeting general rumination and internal obstructions to living congruently to personal values, when conducting mindfulness-based interventions for reducing depression in chronic pain.

Keywords: chronic pain; mindfulness; rumination; values; depression; path analysis**.**

INTRODUCTION

Research shows that depressive symptoms are a common experience in chronic pain (CP) (e.g. Elliott et al. 2003; Ohayon and Schatzberg 2003). The relationship between pain and depressive symptoms is complex and bidirectional (see Wörz 2003 for a review), and it can be conceptually understood within the Fear-Avoidance Model (FAM) as a result from the cascade of events produced by the perceiving of pain as threatening (Vlaeyen et al. 2016). Although a better understanding of the psychological processes underlying the relationship between pain and depressive symptoms is needed (Gatchel et al. 2007), data suggest that when the two co-occur the CP prognosis is worse (Linton and Bergbom 2011), with significant impact on pain-related outcomes (Egloff et al. 2017; Rayner et al. 2016). Additionally, research has expanded on the FAM understanding of CP by exploring the role of attentional processes such as mindfulness, which seems to moderate the relationship between pain intensity and catastrophizing (Schütze et al. 2010).

During the last two decades, mindfulness has been a topic of interest in psychotherapy research (Baer 2003; Christopher and Maris 2010), particularly in depression (e.g. Hofmann et al. 2010). Although differently conceptualized through the years (Bishop et al. 2004), there is an overall agreement on defining mindfulness as a way of purposely and non-judgmentally paying attention to the present moment (Kabat-Zin 2002). Indeed, mindfulness encompasses different components (see Coffey et al. 2010 for a topical discussion), one of which being the ability to intentionally regulate attention, i.e. mindful awareness (Brown and Ryan 2003). This is a particularly important component of mindfulness as it is the building block where mindfulness begins (Bishop et al. 2004). There is an ongoing discussion on the measurement of mindfulness, both empirically (Baer et al. 2009), and conceptually (Bergomi et al. 2012), and Mindful

Attention Awareness Scale (MAAS; Brown and Ryan 2003) has been the most widely used measure of mindful awareness. Indeed, MAAS is particularly useful when conducting research on its relationship with negative output (such as psychopathological symptoms and detrimental psychological processes such as rumination), as its items are negatively formulated (e.g. “It seems I am ‘running on automatic’ without much awareness of what I’m doing”). This makes the MAAS a useful measure of lack of attentiveness and autopilot (Grossman 2008). Present moment awareness is a key element in mindfulness, and it is empirically different than other mindfulness facets such as acceptance and non-judgement (Coffey et al. 2010). Mindfulness, measured by MAAS, has been suggested to be an important psychological process in CP as its non-judgmental present moment awareness seems to be contrary to the rather automatic nature of detrimental cognitive processes (such as rumination) involved in CP disability (Sullivan et al. 2005). Indeed, the benefits of mindfulness in CP has been explored (Bawa et al. 2015; Mun et al. 2014), but more research is needed on both its efficacy and the underlying processes operating the relationship between mindfulness and depression in CP. Although mindfulness seems to be effective in reducing depressive symptoms in CP (e.g. Hilton et al. 2017), effect sizes are usually small (e.g. Sephton et al. 2007). This suggests the importance of better understanding the pathways in which mindfulness and depressive symptoms relate in CP. Increasing this understanding will inform us on whether promoting mindful awareness is a sufficient approach to reducing depressive symptoms in CP, or whether psychological interventions would benefit from introducing other strategies that would tackle psychological processes underlying this relationship.

An important factor for understanding the mechanisms underlying mindfulness is rumination. Rumination has been conceptualized as a pattern of response in which a person´s attention and thinking are focused on their negative emotional states (Nolen-

Hoeksema 2000). It is a mode of responding to distress that consists in repetitive and passively focusing on one´s emotional states, its causes and consequences, that does not result in useful problem solving nor taking action (Nolen-Hoeksema et al. 2008). This pattern of repetitive thinking about one´s thoughts and emotional states has a reciprocal relationship with depressive symptoms: feeling sad can increase the likelihood of engaging in rumination, which in turn can produce more feelings of sadness and/or depression, creating a vicious cycle (Moberly and Watkins, 2008). It has been proposed that mindfulness reduces depressive symptoms through the reduction of rumination (Segal et al. 2002; Teasdale et al. 2002). Indeed, there is growing evidence that mindfulness reduces ruminative thinking (Deyo et al. 2009; Heeren and Philippot 2011), although to our knowledge this relationship is underexplored in CP. Overall, rumination as a general psychological process has had little attention in CP research. Research on rumination in CP has been mainly focused on pain-related rumination as a subset of pain catastrophizing (Buenaver et al. 2012; Sullivan et al. 1998). Nevertheless, empirical results seem to suggest that rumination in CP is not limited to pain-related content (Curtin and Norris 2017; Edwards et al. 2011). Indeed, rumination is significantly correlated with poor mental health and psychological inflexibility, and significantly predicts depression in CP (McCracken et al. 2014). This suggests that other psychological flexibility processes may be relevant in understanding the link between mindfulness, rumination and depressive symptoms. This seems to be in line with the evidence that interventions that promote valued-based action in addition to mindfulness present higher effect sizes than those that are solely mindfulness-based (Veehof et al. 2016).

Literature suggests that automatic responding and lack of awareness limit the ability to consider and choose engaging in actions that are congruent with personal needs and values (e.g. Brown and Ryan 2003; Hayes et al. 2006). Indeed, valued-based action seems to be a relevant factor in CP functioning (e.g. McCracken 2013; McCracken and Vowles 2014; McCracken and Yang 2006; Scott et al. 2016) and depressive symptoms (Jensen et al. 2015), and it is associated to changes in depressive symptoms after a mindfulness- and values-based intervention for CP (Vowles and McCracken 2008). Results have evidenced that mindfulness and willingness to engage in valued activities significantly predict a reduction of depressive symptoms in CP (McCracken et al. 2007), and success in valued living predicts having less depressive symptoms beyond mindfulness-related processes such as acceptance (McCracken and Yang 2006). Although it is theoretically proposed that mindfulness produces a shift in perspective that reduces rumination, thus creating the space in which a present-focused values clarification can occur (Shapiro et al. 2006), to our knowledge this has never been empirically tested. Specifically, although it has been suggested that suffering and disability in CP is a result from processes of reduced awareness, entanglement with thoughts and emotions, and inflexible patterns of avoidant behaviors (McCracken 2005), to our knowledge the relationship between mindfulness, rumination, valued living and depressive symptoms in CP has never been explored. Thus, the current study is built on previous research that shows that mindfulness significantly decreases depressive symptoms in CP (e.g. Hilton et al. 2017), and that this relationship occurs through a reduction in ruminative thinking (Segal et al. 2002; Teasdale et al. 2002), even though this has never been tested in CP. Also, the current study stems from the theoretical proposition that, by reducing rumination, mindfulness allows for values clarification to occur, thus promoting the engagement with valued actions (Shapiro et al. 2006), which research shows relevant in CP (Jensen et al. 2015).

Our goal is to test a mediational model in which mindfulness negatively predicts depressive symptoms sequentially through rumination and valued-based action.

Specifically, we expect that 1) mindfulness negatively predicts depressive symptoms through rumination and valued living; 2) rumination mediates the relationship between mindfulness and valued living; 3) valued living mediates the positive association between rumination and depressive symptoms.

METHOD

Participants

The current cross-sectional study was conducted in a sample of 124 Portuguese woman with CP, and it is part of a larger one that aims to explore the relationship between psychological processes and depressive symptoms in CP. Inclusion criteria: a) previous CP diagnosis; b) ≥ 18 years of age; c) Portuguese nationality (i.e. being born in Portugal); d) access to an online device for completing the questionnaires.

The current sample has a mean age of 48.07 (SD = 10.50). Participants were married (*n* = 82; 66.1%) and had completed high school (*n* = 37; 29.8%) or had a bachelor´s degree (*n* = 54; 43.5%). Also, participants were employed (*n* = 91; 73.4%). From those who were unemployed (*n* = 33; 26.6%), 3 were on sick leave due to CP (2.4%). Participants reported their CP condition was diagnosed by a medical doctor (*n* = 123; 99.2%), specifically by a rheumatologist (*n* = 102; 82.3%). The most common diagnosis was fibromyalgia (n = 109; 87.9%), followed by low back pain (*n* = 16; 12.9%) and arthrosis (*n* = 10; 8.1%). It is worth noting that participants could report more than one CP condition. Participants reported having CP for more than 10 years (*n* = 69; 55.6%), were taking medication for CP (*n* = 109; 87.9%) and presented on average moderate levels of pain intensity (measured by numeric pain rating scale; NPRS = 5.21). Also, participants presented other comorbid chronic health conditions (*n* = 75; 60.5%). See Table 1 for more information on sample characteristics.

Table 1

Demographic and medical characteristics of the sample (N = 124)

	N	%
Marital status		
Single	20	16.1
Married	82	66.1
Separate/Divorced	20	16.1
Widower	2	1.6
Education level		
Elementary school	2	1.6
Middle school	15	12.1
High school	37	29.8
Bachelors	54	43.5
Post-Grad	8	6.5
Masters	7	5.6
Doctorate	1	0.8
CP diagnoses provided by medical doctors*		
General practitioner	17	13.7
Rheumatologist	102	82.3
Psychiatrist	9	7.3
Other	105	84.7
CP diagnoses*		
Fibromyalgia	109	87.9
Arthrosis	10	8.1
Rheumatoid Arthritis	9	7.3
Lateral Epicondylitis	2	1.6
Low Back Pain	16	12.9
Neck Pain	7	5.6
Other	98	79.0
Duration of CP		
< 1 year	1	0.8
1 year - 5 years	21	16.9
5 years - 10 years	33	26.6
> 10 years	69	55.6

*participants could choose more than one option.

Procedures

The current study is part of a larger prospective study that aims to explore the role of several psychological processes in the etiology of psychopathological symptoms in CP.

Recruitment was conducted online (Limesurvey online platform). Five national associations for CP individuals were contacted and invited to participate by advertising the study to their mailing list. Three CP associations accepted to collaborate. These are non-lucrative associations for CP patients that do not provide medical nor psychological treatment, but are rather institutions where CP patient can get legal advisement, information on latest scientific advances in CP treatment and contact information of where to get the appropriate clinical help. The protocol was completed by 125 individuals with CP. As one male completed the protocol, we have excluded his responses from data base, in order to attain a homogenous sample in terms of gender. Our final sample was composed of 124 women with CP. Participants were not compensated for participating in the study. Information regarding the study´s goals and the target population was provided. The voluntary nature of participation and confidentiality of data was assured. Participants provided informed consent. See flow diagram of participants in Figure 1.

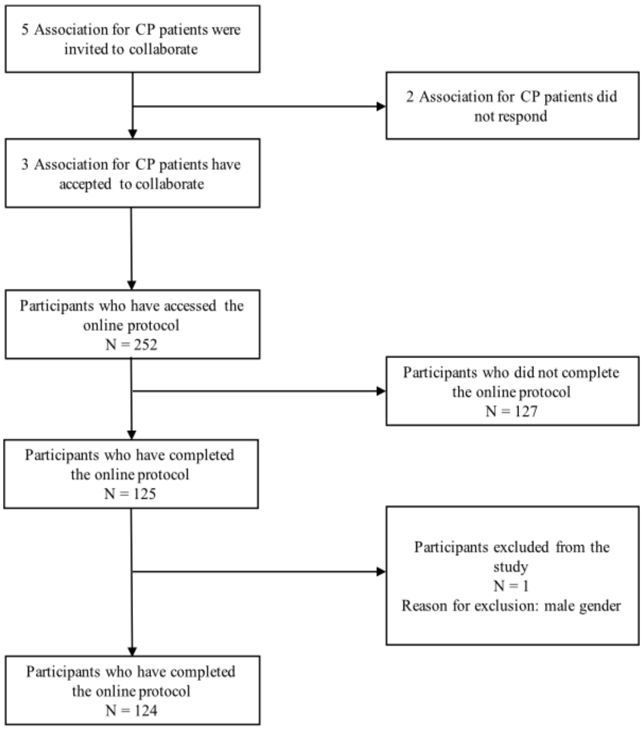

Figure 1. Flow chart of participants

The current study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of University of Coimbra, Portugal.

Measures

The current study used the Portuguese validated versions of all measures.

Mindful Attention Awareness Scale (MAAS; Brown and Ryan 2003; Gregório and Pinto-Gouveia 2013) is a 15-item measure of attention and awareness of present moment as a trait quality of mindfulness. It uses a 6-point scale (1 = almost always; 6 = almost never), and presents good internal consistencies, both in its original study (α = .84) and in its Portuguese validation (α = .90). The current study found acceptable values of Cronbach alpha (α = .92).

Ruminative Response Scale – short version (RRS; Treynor et al. 2003; Dinis et al. 2011) is a 10-item measure of rumination over symptoms, causes and consequences of one´s depressed mood, in a 4-point scale (1 = almost never; 4 = almost always). Although the RRS is most commonly used as a two-factor measure (assessing brooding and reflection as two dimensions of rumination), it can be used as a one-factor measure of ruminative thinking, depending on the research question at hand (i.e., if one is interested in exploring overall rumination, or rather each dimension separately) (e.g. Whitmer and Gotlib 2011). The current study used the one-factor structure of rumination. Higher scores mean greater tendency to ruminate. The original study found acceptable internal consistency (α = .85). Our study found a Cronbach alpha of α = .86.

Valuing Questionnaire (VQ; Smout et al. 2014; Carvalho et al. 2018) is a 10-item instrument designed to measure valued living congruent with the psychological flexibility model (Hayes et al. 2006). It has a two-factor structure: 1) VQ-Obstruction, which measures obstacles to valued living, and 2) VQ-Progress, progress in engaging in values-based actions. The original study found good internal consistency (VQ-O: α = .79; VQ-P = α = .81), as well as the present study (VQ-O: α = .83; VQ-P: α = .86).

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond and Lovibond 1995; Pais-Ribeiro et al. 2004) is 21-item measure of depression, anxiety and stress symptoms, in a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time). In the original study, the subscales had good internal consistency (α = .91 depression; α = .84 anxiety; α = .90 stress). Given the amount of evidence for the role of rumination in depressive symptoms, we will only focus on depressive symptoms. The current study found a good internal consistency (α = .91) for the depression subscale.

Data analysis

Statistical analyses were conducted using SPSS (v. 21, SPSS, Chicago, IL, USA) and Amos Softwares (v. 18, Amos, Crawfordville, FL, USA).

Descriptive analyses were performed to analyze demographic variables and means scores of all variables. Pearson product-moment correlation coefficients were calculated to explore the relationships between mindful awareness, rumination, obstruction to valued living, progress in valued living and depressive symptoms.

Path analysis was performed to estimate the relations among variables, based on theoretically hypothesized causal relations (Kline 2005). In the path model tested, it was examined whether mindful awareness would impact upon depressive symptoms, mediated by rumination, obstacles to valued living and progress in valued living. Additionally, it was tested whether mindful awareness would impact upon obstacles to and progress in valued living, mediated by rumination. Finally, it was also tested whether the effect of rumination on depressive symptoms is mediated by obstacles to and progress in valued living.

The Maximum Likelihood (ML) estimation method was used, as it it allows for the estimation of all model path coefficients and to compute fit statistics (Kline 2005; Chou and Bentler, 1995), and it is the most commonly used estimation method in path analysis (Iacobucci 2010). Several goodness-of-fit indices were analyzed to evaluate overall model fit. We have used Chi-square value and the associated degrees of freedom (i.e. normed chi-square) as a measure of the discrepancy between our sample and the fitted covariances´ matrices (Hu and Bentler 1999). As the Chi-square is highly sensitive to sample size (Schermelleh-Engel et al. 2003), we have also used Comparative Fit Index (CFI ≥ .95, good; it is a non-centrality based index that tests whether the model is better than the alternative model established with the covariance matrix) and Tucker-Lewis Index (TLI ≥ .95, good; it is a non-normed and incremental fit index, thus not required to be between 0 and 1, and it compares the tested model with one where all variables are uncorrelated), which are less sensitive to sample size (Kline 2005; Byrne 2010). Also, we have considered the Root Mean Square Error of Approximation (RMSEA ≤ .05, good fit; ≤ .08, acceptable fit; ≥ .10, poor fit; it tests how well the model with optimal parameter values would fit the population covariance matrix), with 95% confidence interval (CI) (Hu and Bentler 1999). Significance tests of indirect effects were performed using Bootstrap sampling with 2000 samples and bias-corrected confidence levels set at .95 (Hayes and Preacher 2010; Kline 2005). The effects were considered significant ($p < .05$) if zero was outside of the upper and lower bounds of the 95% bias-corrected confidence interval (Hayes and Preacher 2010; Kline 2005).

RESULTS

Preliminary Data Analyses

All variables presented acceptable values of skewness and kurtosis (SK<|3| and Ku<|8-10|) (Tabachnick and Fidell 2014), thus not suggesting severe violations of normality. No outliers were detected. Also, there were no missing data as the online protocol did not allow submitting incomplete questionnaires.

Descriptive analyses

Mean and standard deviation results are depicted in Table 2.

Table 2
Mean (M), Standard Deviation (SD) Range of scores (Min-Max) of all variables, and Pearson moment correlation between all variables in the total sample (N = 124)

				Correlations			
Measures	*M*	*SD*	Min-Max	1	2	3	4
1.Mindful awareness (MAAS)	51.12	14.90	16-84	-	-	-	-
2.Rumination (RRS)	21.63	6.01	10-37	-.37***	-	-	-
3.Obstruction to valued living (VQ-0)	12.45	6.99	0-28	-.56***	.60***	-	-
4.Progress in valued living (VQ-P)	18.39	6.71	3-30	.34***	-.40***	-.52***	-
5.Depressive symptoms (DASS)	5.97	5.05	0-20	-.43***	.63***	.73***	-.45***

Note. *** *p* <.001;
MAAS = Mindful Attention Awareness Scale; RRS = Ruminative Response Scale; VQ-O = Valuing Questionnaire-Obstruction; VQ-P = Valuing Questionnaire-Progress; DASS = Depression, Anxiety and Stress Scale – depression subscale)

It is worth noting that our sample presented sub-clinical levels of depressive symptoms (M = 5.97). Additional analysis showed that some participants (*n* = 32) presented mild to moderate levels of depressive symptoms (Lovibond and Lovibond 1995).

Correlation analyses

Results from correlation analysis are depicted in Table 1, and show that all variables are significantly associated. Specifically, mindful awareness is negatively correlated with depressive symptoms, rumination and obstruction to valued living, while positively associated with progress in valued living. Also as expected, rumination was positively associated with depressive symptoms and obstruction with valued living, and negatively correlated with progress in valued living. Depressive symptoms were positively associated with obstruction, and negatively with progress, in valued living.

Mediation analysis

Results from path analysis showed an initial oversaturated model, i.e., with a perfect model fit, χ^2 = 0.00 (0, 124), with the following non-significant paths: mindful awareness → depressive symptoms (b = -.008, *p* = .724) and progress in valued living → depressive symptoms (b = -.043, *p* = .408). The fitness of the model was re-calculated after progressively eliminating the two non-significant paths.

The final "trimmed" model (see Figure 2) presented good model fit: χ^2 = .843 (2, 124); CFI = 1.000; TLI = 1.024; RMSEA = .000, *p* = .732. According to the chi-square difference test, the "trimmed" model presented a significantly better fit than the initial oversaturated model (χ^2dif = .843 > χ^2.95(2) = .103). The model explained 13% of rumination, 50% of obstruction to valued living, 20% of progress in valued living and 59% of depressive symptoms.

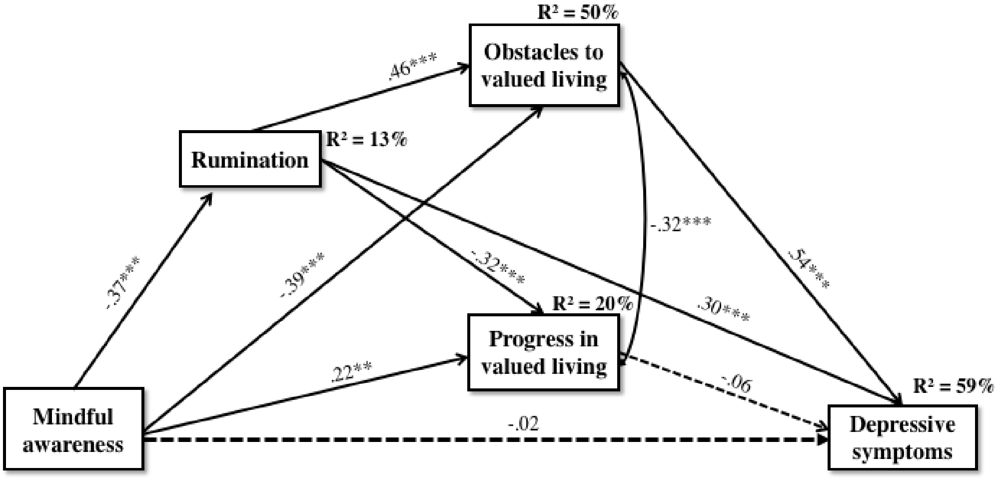

Figure 2. Path diagram for the final model showing the associations between mindful awareness, rumination, obstacles to and progress in valued living and depressive symptoms. Standardized

regression coefficients and multiple correlations coefficients are presented; all paths are statistically significant ($p < .001$), except for the two paths drawn in dotted lines, which were non-significant ($p > .05$).

*** $p < .001$

Results show an indirect association between mindful awareness and depressive symptoms ($\beta = -.415$, 95% CI: -.525; -.307, $p = .001$), through rumination ($\beta = -.37 \times .30 = -.111$), through obstruction to valued living ($\beta = -.39 \times .54 = -.211$), and sequentially through rumination and obstruction to valued living ($\beta = -.37 \times .46 \times .54 = -.090$). Additionally, rumination mediated the relationship between mindful awareness and obstruction to valued living ($\beta = -.169$, 95% CI: -.290; -.088, $p = .001$), and between mindful awareness and progress in valued living ($\beta = .118$, 95% CI: .049; .228, $p \leq .001$). Nevertheless, mindful awareness still directly predicted both obstruction to valued living ($\beta = -.391$, 95% CI: -.547; -.219, $p = .001$), and progress in valued living ($\beta = .216$, 95% CI: .019; .415, $p = .031$). Also, results showed an indirect association between rumination and depressive symptoms through obstacles to valued living ($\beta = .249$, 95% CI: .154; .386, $p = .001$), even though its direct association remained significant ($\beta = .305$, 95% CI: .121; .454, $p = .001$).

DISCUSSION

Research suggests that mindfulness, rumination and valued action are relevant variables for understanding depressive symptoms in CP (e.g. Hofmann et al. 2010; Edwards et al. 2011; McCracken et al. 2007). Although literature hypothesizes that mindfulness reduces rumination, and in turn produces values-congruent behaviors (Shapiro et al. 2006), to our knowledge this has never been tested in a conceptual model.

Results from correlational analyses showed that those who were more mindfully aware tended to experience less depressive symptoms, as well as were less likely to engage in ruminative thinking. This is in line with previous studies that show the negative association between mindfulness and depressive symptoms (e.g. Bawa et al. 2015; Mun et al. 2014) and rumination (e.g. Curtin and Norris 2017) in CP. Additionally, participants who were more mindfully aware also experienced less obstacles to engaging in valued activities, and reported more progress in living in accordance to personal values. These results seem to be in line with the theoretical (e.g. Shapiro et al. 2006) and empirical (e.g. McCracken and Vowles 2014) literature on the role of mindfulness as a mechanism that facilitates valued actions. Also, rumination was associated to valued living: it correlated positively with obstructions to valued living, and negatively with progress in valued living. Although to our knowledge this has never been explored in CP, it is in line with theoretical literature that proposes a relationship between being entangled with internal experiences (such as ruminative thinking) and acting guided by avoidance rather than personal values (e.g. McCracken 2005). Indeed, these results seem to be in line with similar associations found between closely conceptualized processes, such as committed action, cognitive fusion and decentering (Scott et al. 2016). Finally, depressive symptoms were correlated positively with obstructions to valued living, and negatively with progress in valued living, which seems to echo previous results on the relationship between valued living and depressive symptoms in CP (e.g. Jensen et al. 2015).

In order to better understand the relationships between these variables, a theory-driven mediational model was tested. Results showed that the relationship between mindfulness and depressive symptoms was sequentially mediated by rumination and obstructions to valued living. This seems to be in line with the view that suffering and disability in CP results from a lack of awareness, entanglement with internal experiences and lack of valued living (e.g. McCracken 2005). According to the well established Fear-Avoidance Model (FAM), the pain experience is highly influenced by interpretations of pain-cues, such as pain catastrophizing (e.g. Vlaeyen et al. 2016) that modulate pain and emotional outputs. Our findings are in line with the FAM and adds to it by suggesting that psychological processes that are not focused on pain may also play a role in the relationship between mindful awareness and depressive symptoms in CP. Specifically, adding to previous findings showing that mindfulness is a significant and unique contributor of pain beyond other variables in the FAM (Schütze et al. 2010) and is a moderator of the relationship between pain intensity and disability (Poulin et al. 2016), our results seem to expand the knowledge on the role of mindfulness in depressive symptoms in CP by pointing to the role of ruminative thinking and (obstructions to) valued living as mediators of this relationship. Indeed, these results seem to align with the hypothesis that mindfulness leads to less depressive symptoms through a reduction in ruminative thinking (e.g. Segal et al. 2002; Teasdale et al. 2002), which in turn result in more values-guided behaviours (Hayes et al. 2006). An interesting result was that progress in valued living did not mediate this association. One possible way of reading this result is considering it a potential statistical artefact. Obstacles to valued living are measured in the same direction as rumination and depressive symptoms, thus possibly tapping into more similar constructs than the positively formulated items in progress in valued living. Additionally, it is worth noting that the magnitude of correlation between obstacles in valued living and depressive symptoms is high ($r = .73$), which may indicate they may be measuring an underlying similar process. Another possible explanation may follow a more functional interpretation: items in VQ-Progress may be tapping into behaviours that are not necessarily engaged in a mindful manner (e.g. “worked toward my goals even if I didn’t feel motivated to”), thus not involved in how mindfulness and rumination relate do less depressive symptoms. Indeed, the function and intention that underlie a behaviour (e.g. avoiding difficult experiences versus moving towards a purposeful life) seem to impact intervention outcomes (Hurl et al. 2016), thus being potentially relevant in how it relates to depressive symptoms in CP. One may experience progress in valued actions, not because one is more mindfully aware of the present moment and of one´s personal values, but as a result from autopilot and/or from an underlying avoidance-based process. For example, one might engage in leisure activities despite pain, not because one values personal health, but to avoid loneliness. Additionally, results suggest the association between mindfulness and valued living occurs negatively through rumination. This seems to suggest that those who are more mindfully aware experience less obstacles and more progress in valued living because they tend to ruminate less about their emotional states. This seems to echo both the role rumination seems to play as a predictor of negative outcomes in CP (e.g. Curtin and Norris 2017; McCracken et al. 2014), as well as the proposition that mindfulness, by reducing rumination, creates a space in which values clarification are more likely to occur (Shapiro et al. 2006; Hayes et al. 2006). Finally, results seem to indicate that thinking negatively and repetitively on one´s emotional states relate to depressive symptoms through the experiencing of obstructions to valued living. Literature on psychological suffering suggests that the entanglement with internal experiences (e.g. ruminative thinking) leads to behaviours that are more avoidant-focused, thus creating obstacles to both values identification and valued-based actions (Hayes et al. 2006). Our results seem to corroborate this by showing that those who tend to ruminate more experience more depressive symptoms, and one mechanism through which this occurs is by the experience of obstructions to living in accordance to personal values. On the other hand, experiencing less progress in valued living did not mediate this relationship. This is an interesting result, as it seems to indicate that experiencing less progress in valued living is less nefarious to depressive symptoms than experiencing more obstacles in valued living. One possible explanation is that while obstructions to valued living can be directly experienced (e.g. pain-related catastrophic thoughts, worry, ruminative thinking), the realization that one is not moving towards a purposeful life may need a more conscious reflection on personal values, which may be subordinated to and hindered by an avoidant-driven automatic responding.

Several limitations should be considered. The cross-sectional design prevents us from establishing causal relations between variables. Future studies should consider replication of the current study with a longitudinal design. It should also be acknowledged that the convenience sampling of the current study makes our sample non-probabilistic and non-representative of the population. It should be noted that motivation/willingness to participate in the study may have influenced results: for example, those who have access to online platforms might be younger and more educated than the overall CP population. An interesting future study, with a larger sample, would be to explore if the role of rumination and valued action would be invariant when considering age clusters and levels of education. Also, it may have been the case that those who did not present clinically-relevant depressive symptoms were disproportionately more motivated to participate, thus influencing results. Indeed, one should acknowledge that participants presented on average subclinical levels of depressive symptoms. An interesting study would be to test this model in a sample of CP and major depression. Additionally, our sample was female-only, thus the generalization of these results to other genders is unwarranted. Future studies should test this model with other genders, and conduct multi-group analyses to explore differences. Finally, it should be noted that mindfulness is not limited to mindful awareness, so future studies should consider exploring other facets of mindfulness.

Results from this study are in line with the theoretical hypothesis that mindfulness decreases rumination, that in turn creates a space in which values-congruent behaviors can occur (e.g. Shapiro et al. 2006). Although the relevance of the variables in study has been individually demonstrated in CP, to our knowledge this is the first study that tested a comprehensive model that explored how mindfulness, rumination, valued living and depressive symptoms relate. This yields potential clinical implications. On the one hand, it corroborates the benefits of mindfulness in CP (e.g. Hilton et al. 2017), but adds on new information on other relevant processes that should be considered in psychological interventions in CP. It suggests the importance of addressing ruminative thinking beyond pain-related rumination. It seems that interventions in CP would benefit from not being exclusively focused on pain-related content, and broaden their focus by promoting a mindful way of relating to relevant ruminative thoughts. Also, this study suggests that in promoting behaviors that are valued, one should consider tackling rumination as a potential obstacle to valued living. Accepting and defusing from ruminative thoughts may be useful psychotherapeutic goals in helping clients engage in valued actions in CP, thus leading to a more fulfilling life.

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Study VI - Obstacles to social safeness in women with chronic pain: the role of fears of compassion

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Obstacles to social safeness in women with chronic pain: The role of fears of compassion

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Abstract

The current study examines the mediating role of fears of compassion (for others, from others, for self) between self-compassion and social safeness in a sample of Portuguese women with chronic pain (CP). The recruitment (N = 107) was conducted online and participants responded to a set of self-report questionnaires aimed to assess socio-demographic and medical data, as well as self-compassion, fears of compassion, social safeness, pain intensity, pain-related functional impairment and depressive symptoms. A theory-driven mediational model was built in which fears of compassion mediate the relationship between self-compassion and social safeness, while controlling for pain intensity, functional impairment and depressive symptoms. This was tested using the SPSS macro PROCESS. Results suggest that the relationship between self-compassion and social safeness was mediated by fears of receiving compassion from others, but not by fears of giving compassion to others nor fears of self-compassion. These results yield relevant information to better understand how women with CP experience social safeness and connectedness, with promising clinical implications.

Keywords: chronic pain; self-compassion; fears of compassion; social safeness.

Introduction

Social bonding is a crucial part of humans′ phylogenetic history (e.g. Dunbar, 1998, 2003), with an especially important role in brain maturation in infancy, and experience and processing of emotions (e.g. Grossman & Johnson, 2007). The establishment of social relationships is operated by neuropeptides such as oxytocin (e.g. Meyer-Lindenberg, Domes, Kirsch, & Heinrichs, 2011). Oxytocin has been associated with feelings of contentment and well-being (see Ishak, Kahloon, & Fakhry, 2011), and with an increase in pain tolerance (e.g. Paloyelis, Krahé, Maltezos, Williams, Howard, & Fotopoulou, 2016). Indeed, the association between pain and social relationships has been previously explored in pain research (e.g. Cano & Williams, 2010). However, the majority of studies have focused either on social support or on the impact of pain on social and family functioning (e.g. Dueñas, Ojeda, Salazar, Mico, & Failde, 2016; Hengstebeck, Roskos, Breejen, & Arnetz, 2017; Turk, Fillingim, Ohrbach, & Patel, 2016), and less on the subjective feeling of being safe in and connected to one′s social environment. In fact, some have suggested that social support is not *per se* a sufficient condition to promote effective adaptation to pain, and that individual factors should be taken into consideration (Sturgeon & Zautra, 2016).

Experiencing constant or sporadic pain during a long period of time (Merksey & Bogduk, 1994) has great deleterious effect on quality of life, occupational capacity and social functioning (e.g. Börsbo, Peolsson, & Gerdle, 2009; Breivik, Eisenberg, & O’Brien, 2013; Garbi, Hortense, Gomez, Silva, Castanho, & Sousa, 2014), but also on how safe one perceives the social context. Individuals with chronic pain (CP) may be particularly sensitive to perceived social rejection due to fears of being disbelieved or thought of as unproductive or a burden (Smith & Osborn, 2007), which may give rise to perceptions of being ignored, embarrassed or devalued by others (Arnold, Crofford, Mease, Burgess, Palmer, Abetz, & Martin, 2008). In a large national probability sample, one study found that being safe in and connected to one′s social relationships is a stronger predictor of mental health in one year than the other way around (Saeri, Cruwys, Barlow, Stronge, Sibley, 2017). This raises the overall question of whether difficulties in feeling safe in social relationships result unidirectionally from illness-related impairments, or can also arise from other attachment-related difficulties prior to the onset of the illness. In the context of CP, there seems to be evidence for the relationship between attachment and CP (see Romeo, Tesio, Castelnuovo, & Castelli, 2017). For example, one study found that people suffering from CP presented disorganized attachment in a two-fold rate when compared to individuals from the general population (Davies, Macfarlane, McBeth, Morriss, & Dickens, 2009).

Self-compassion has been recently a topic of interest in pain research (Purdie & Morley, 2016). The rationale behind this growing trend is based on both theoretical and empirical grounds. Self-compassion is positively correlated with well-being (see Zessin, Dickhäuser, & Garbade, 2015), and is negatively associated with anxiety and depressive symptoms (see MacBeth & Gumley, 2012), which are common in CP (Elliot, Renier, & Palcher, 2003; Ohayon & Schatzberg, 2010; Jobski, Luque-Ramos, Albrecht, & Hoffmann, 2017). Indeed, it seems that self-compassion is a relevant psychological process in CP (Vowles, Sowden, & Ashworth, 2014), associated with fewer symptoms of emotional distress (e.g. Costa & Pinto-Gouveia, 2013), less negative affect and pain disability (Wren et al., 2012), and moderates the relationship between nefarious cognitive processes and depressive symptoms in CP (Carvalho, Pinto-Gouveia, Gillanders, & Castilho, 2018). Although the studies of self-compassion in CP have the limitations of cross-sectional designs, longitudinal studies outside CP research have found that self-compassion predicts more life satisfaction, less negative affect (Hope, Koestner, &

Milyavskaya, 2014) and less depressive symptoms (Krieger, Berger, & Holtfort, 2016; López, Sanderman, & Schroevers, 2018). Additionally, the particular relevance of self-compassion in CP stems from the theoretical claim that it is an attachment-based output rooted in our evolutionary history. Self-compassion has been described as the ability to be sensitive to our own suffering, as well as a motivation to alleviate it in a kind and soothing manner (Dalai Lama, 2001; Neff, 2003; Gilbert, 2005), and it seems to be part of a soothing-affiliative affect regulation system that is thought to result from the mammalian evolution of attachment (Gilbert, 2005, 2010, 2014). The ability to be self-compassionate seems to stem from a set of continued experiences where one is the recipient of compassion from others (e.g. parents who acknowledge a child´s personal struggles and who help them regulate negative emotions in a warm, caring and soothing manner) (Cozolino, 2007; Mikulincer & Shaver, 2007). It has been suggested that the mechanism behind this relationship (i.e. receiving compassion from others and the ability to be self-compassionate) is through the development of feelings of being safe in and connected to one′s social environments (Kelly & Dupasquier, 2016). Indeed, it seems that social relationships play a crucial role in helping regulate physiological and emotional processes (Cacioppo, Berntson, Sheridan, & McClintock, 2000). Also noteworthy is the fact that self-compassion, by being rooted in an affiliative system, is related to physiological phenomena that are relevant in pain regulation: self-compassion is associated with vagally-mediated heart-rate variability (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008), and with oxytocin-endorphin systems (Rockliff, Karl, McEwan, Gilbert, Matos, & Gilbert, 2011) that seem to be involved in pain modulation (e.g. Tracy, Georgiou-Karistianis, Gibson, & Giummarra, 2015). Although affiliation outputs seem to have a role in pain regulation (Eisenberger, Master, Inagaki, Taylor, Shirinyan, Lieberman, & Naliboff, 2011), and although self-compassion predicts the experience of feeling safe and connected in social relationships (Akin & Akin, 2015) and higher psychological functioning (Kelly, Zuroff, Leybman, & Gilbert, 2012), to our knowledge the relationship between self-compassion and social safeness has never been tested in CP.

Although humans are hardwired to engage in social bonding (Brown & Brown, 2015; Seppälä, Simon-Thomas, Brown, Worline, Cameron, & Doty, 2017), some people may have difficulties in experiencing positive feelings of affiliation (Gilbert, McEwan, Matos, & Rivis, 2011). These difficulties are potentially problematic given that affiliation is a major regulator of negative emotions (Depue & Morrone-Strupinsky, 2005; Gilbert, 2005, 2010, 2014). Indeed, it seems that some individuals fear feelings of compassion and/or react to compassion with strong negative emotions (Gilbert et al., 2011; Miron, Seligowsky, Boykin, & Orcutt, 2016). These negative feelings when encountering compassion can be of different flow and directions: one may experience fear of exhibiting compassion towards others (*fear of compassion for others*), perhaps due to a perception of providing support and warmth as a sign of submissiveness or an overall unease with emotions of distress. One may also experience fears of receiving compassion (*fear of compassion from others*) if feelings of being cared for and soothed are unfamiliar, and/or if these feelings elicit traumatic memories of being shamed, criticized and put down in times when emotional support was needed. Also, one may have fears of experiencing self-compassion (*fear of compassion for self*), due to an absence of memories of experiencing compassion from others (Gilbert, 2010), making it difficult to cultivate these feelings towards the self (Pauley & McPherson, 2010). Fears of compassion have been recently studied, and results show its association with several negative psychological and health outputs. Research shows that fears of compassion are associated with post-traumatic stress (Miron et al., 2016; Miron, Sherrill, & Orcutt, 2015) and depressive symptoms in college students (Gilbert, McEwan, Gibbons, Chotai, Duarte, & Matos, 2012). Also, fears of compassion correlate with self-criticism and depressive symptoms in individuals with depression (Gilbert, McEwan, Catarino, & Baião, 2014). Interestingly, a study with individuals suffering from moderate to severe depression found that fears of compassion from others were the best predictors of adult attachment (Gilbert, McEwan, Catarino, Baião, & Palmeira, 2014). Also, there is evidence that lower self-compassion and higher fear of self-compassion is related to shame and disordered eating (Kelly, Carter, Zuroff, & Borairi, 2013). There is also evidence that having fears of receiving compassion from others, as well as from the self, is a mediator between memories of feeling warmth and safeness in childhood, and depressive symptoms (Matos, Duarte, & Pinto-Gouveia, 2017). These results show the need to better understand the mechanisms through which patients experience difficulties in generating self-compassion in harsh times, thus decreasing their ability to feel safe and connected within their social environments. Specifically in CP, to our knowledge, it has never been studied how fears of compassion may play a part in the relationship between self-compassion and feeling safe in patients′ social contexts. Indeed, to our knowledge, only two studies have explored fears of compassion in chronic illnesses. One found that being afraid of receiving compassion from others significantly predicted depressive symptoms in a sample of non-metastatic breast cancer patients (Trindade, Ferreira, Borrego, Ponte, Carvalho, & Pinto-Gouveia, 2018). Another study found that fear of compassion from others mediated the impact of shame related to the illness on the quality of social relationships in college students (Trindade, Duarte, Ferreira, Coutinho, & Pinto-Gouveia, 2018).

Built on previous literature, the current study sets out to explore the relationship between self-compassion, fears of compassion and social safeness and pleasure. We expect that higher levels of self-compassion are associated with less fears of compassion (from others, for others, and from self) and less social safeness and pleasure. Also, we expect that pain intensity, functional impairment and depressive symptoms are negatively correlated with self-compassion and social safeness and pleasure, and positively correlated with fears of compassion, Finally, we hypothesize that the relationship between self-compassion and social safeness is mediated by fears of compassion from others and fears of self-compassion, while controlling for pain intensity, functional impairment and depressive symptoms.

METHOD

Participants

A sample of N = 107 women living with CP was recruited online via three Portuguese nationwide CP associations that have accepted to collaborate and advertise the study with their mailing list. Participants responded to a set of self-report online questionnaires, through a platform (Limesurvey) situated to the university server. Questionnaires assessed 1) socio-demographic data, 2) medical information, and 3) psychological variables exclusively related to the study. The principal researcher of the study was the only one with knowledge of the private username and password to access private content within the platform. Inclusion criteria: a) having chronic musculoskeletal pain diagnosis(es); b) age ≥ 18 years; c) ability to read Portuguese; d) access to an online device. No compensation was given for participating in the study.

Participants had an average age of 50.84 years (SD = 11.20), were single (*n* = 15; 14%), married (*n* = 63; 58.9%), divorced (*n* = 22; 20.6%) or widowed (*n* = 7; 6.5%). Also, the majority of participants had a bachelors′ degree (*n* = 45; 42.1%) or a high-school degree (*n* = 33; 30.8%), and some had completed 6th grade (*n* = 1; 0.9%), 9th grade (*n* = 10; 9.3%), a Post-grad (*n* = 7; 6.5%), a masters´ degree (*n* = 10; 9.3%) or a doctors´ degree (*n* = 1; 0.9%). The majority were currently employed (*n* = 75; 70.1%), and the majority of those who were not (*n* = 32; 29.9%) were absent from working for more than 5 years (*n* = 20; 62.5%). In terms of CP diagnoses, all participants reported their diagnoses were conducted by a medical doctor, such as the rheumatologist (*n* = 83; 77.6%), general practitioner (*n* = 17; 15.9%), psychiatrist (*n* = 7; 6.5%), and/or other clinician (*n* = 21; 19.6%). Diagnoses included fibromyalgia (*n* = 92; 86%), arthrosis (*n* = 12; 11.2%), lower back pain (*n* = 12; 11.2%), rheumatoid arthritis (*n* = 11; 10.3%), and/or other CP conditions (*n* = 16; 15%). The majority of the sample presented one CP diagnosis (*n* = 82; 76.6%), while some reported having two (*n* = 9; 8.5%), three (*n* = 9; 8.5%), four (*n* = 5; 4.7%) and five CP diagnoses (*n* = 1; 0.9%). Participants reported having CP for more than 10 years (*n* = 65; 60.7%), between 5 and 10 years (*n* = 28; 26.2%), or between 1 and 5 years (*n* = 14; 13.1%). The majority was taking CP-related medication (*n* = 91; 85%) and presented other chronic medical conditions (*n* = 50; 56.1%). Also, some participants reported not having had psychotherapy ever (*n* = 38; 35.5%), others reported not having in the last 12 months (*n* = 38; 35.5%), while others had psychotherapy in the last 12 months (*n* = 31; 29%).

Procedures

The current study is part of a larger three-wave study that aims to explore the role of a set of psychological processes in the etiology of depressive symptoms in CP. The Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra has approved the study before data collection.

The research team has contacted five nationwide CP associations, explained the study and invited them to advertise the study through Facebook and/or mailing lists. These are non-lucrative associations for CP patients. Medical or psychological treatment is not provided by these associations. These are strictly led by and directed to CP patients, where they can get legal advisement, information on the latest scientific advances in CP treatment and contact information of where to get the appropriate clinical help. Three CP associations agreed to advertise the study. The current study was *a priori* designed to use data from the last wave of the larger study, to explore the specific research question here reported. The current study was conducted in a sample of N = 107 women with CP.

After accessing the online protocol, participants were provided with information related to the goals of the study and its target population. Participants were informed that participation was voluntary, and that collected data would be confidential. Finally, the research team informed that collected data would be used strictly within the current research. Participants provided consent by ticking on the "I accept to participate" button.

Measures

Self-Compassion Scale-Short form (SCS-SF; Raes, Pommier, Neff, & Van Gucht, 2011; Castilho, Pinto-Gouveia, & Duarte, 2015) is the short version of SCS, composed of 12-items. This instrument measures self-compassion (e.g. "I try to see my failings as part of the human condition") with a 5-point scale (1 = almost never; to 5 = almost always). There is an ongoing discussion on the factor structure of the SCS, which seems to be fueled by the theoretical underpinnings of different self-compassion conceptualizations. Some authors suggest a structure of one or six factors (total score, or the six subscales: self-kindness, common humanity, mindfulness, self-judgment, isolation and over-identification) (Neff, 2003). Others have found theoretical and psychometric arguments for a two-factor structure: one that measures a *self-compassionate* attitude (sum of self-kindness, common humanity and mindfulness) and one measuring a *self-critical* attitude (sum of self-judgment, isolation and over-identification) (Muris & Petrocchi, 2017). The current study follows the latter two factor structure. The current study found good values of internal consistency ($\alpha = .82$).

Fears of Compassion Scale (FCS**;** Gilbert et al., 2011; Matos, Pinto-Gouveia, Duarte, & Simões, 2016) has three scales that measure different dimensions of fears of compassion: 10 items that measure fears of expressing *compassion for others* (e.g., "Being too compassionate makes people soft and easy to take advantage of"), 13 items that assess fears of receiving *compassion from others* (e.g., "If people are kind I feel they are getting too close"), and 15 items that measure *fears of self-compassion* (e.g. "If I really think about being kind and gentle with myself it makes me sad"). The constructs are measured in 5-point scales (0 = Don't agree at all; 4 = Completely agree). The current study found good internal consistencies for fears of compassion towards others (α = .90), from others (α = .90) and for self (α = .91).

Social Safeness and Pleasure Scale (SSPS; Gilbert et al., 2009; Pinto-Gouveia, Matos, & Dinis, 2008) is an 11-items measure of social safeness, i.e. the degree to which a person experiences feelings of belonging, acceptance, connectedness and warmth from others (e.g., "I feel a sense of warmth in my relationships with people"). It measures the construct using a scale of 5 points (0 = almost never; 4 = almost all the time), and the current study found good internal consistency (α = 94).

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond and Lovibond 1995; Pais-Ribeiro et al. 2004) has 21-items that measure depression, anxiety and stress symptoms. It uses a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time) to assess symptomatology. Given the evidence of the co-occurrence of depressive symptoms in CP, this study will only focus on depressive symptoms. This study found a good internal consistency (α = .90) for the depression subscale.

Numeric Pain Rating Scale (NPRS; Hartrick, Kovan, & Shapiro, 2003; Ferreira-Valente, Pais-Ribeiro, & Jensen, 2011) measures pain intensity using a scale of 11 points (0 = ''No pain''; 10 = ''Worst imaginable pain''). Respondents should choose the number that best depicts the intensity of their pain. In the current study, it was created a variable of “average pain intensity” with three items: 1) current level of pain; 2) highest level of pain in the last 24h; 3) lowest level of pain experienced in the last 24h. This study found an internal consistency of α = .89.

Work and Social Adjustment Scale (WSAS; Mundt, Marks, Shear, & Greist, 2002) is a 5-item measure of functional impairment. It can be used in several medical problems by mentioning the specific illness in study. In this study, the instructions were primed for chronic pain. WSAS assesses five domains: work, home management, social leisure activities, private leisure activities, and family and other relationships. It measures the construct in a 9-point scale (0 = no impairment; 8 = very severe impairment). Higher scores indicate higher levels of functional impairment. The current study found values that indicate good internal consistency: α = .92

Data analysis

Statistical analyses were conducted using SPSS (v. 21, SPSS, Chicago, IL, USA), and the PROCESS computation tool for SPSS (Hayes, 2013). Demographic and medical data were examined through descriptive analyses. Mean and standard deviation scores of all variables in study were also examined through descriptive analyses.

Correlation analysis was conducted to explore the relationships between pain intensity, functional impairment, depressive symptoms, self-compassion, the three fears of compassion (for others, from others, and for self), and social safeness and pleasure. The examination of the magnitude of associations followed Cohen´s (1988) guidelines: small if close to *r* close to .10, medium if close to .30, and large if higher than .50.

To test the mediation hypothesis of the relationship between self-compassion and social safeness and pleasure through fears of compassion (while controlling for depressive symptoms, pain intensity and functional impairment as covariates), a model was built and estimated in PROCESS (Model 4). The indirect effect was examined using a bootstrap procedure with 5000 resamples, with a 90% confidence interval (CI). The indirect effect is considered significant when zero is not contained in the interval between the lower and upper CI (Hayes, 2013; Kline, 2005). In order to attain the power of the indirect effect, an online calculator was used (https://davidakenny.shinyapps.io/MedPower/), assuming an N = 107 and an $\alpha = .05$. It is generally accepted that power should be at least 80% in order to detect the effect when there is one (Cohen, 1992).

Additionally, and in order to examine the specific contribution of fears of compassion on the explanation of social safeness and pleasure, a hierarchical regression in three steps were conducted: in step one, a simple linear regression where self-compassion predicts social safeness and pleasure was conducted; in step two, the three fears of compassion model were added to the model; finally, in step three the covariates (depressive symptoms, pain intensity, and functional impairment) were added to the model.

Finally, in order to further control the limitations of the cross-sectional design of this study, an alternative inverted model was tested, in which social safeness predicts self-compassion through fears of compassion. The circularity inherent in the relationship between the psychological processes here tested (i.e. a reduced ability in being self-compassion may result in experiencing difficulties in feeling safe and connected within social relationships; as well as feeling difficulties in social safeness may, in turn, result in reduced self-compassion), as well as the inability to draw conclusions on causality in cross-sectional studies, makes it crucial to test both the hypothesized model and an alternative one where the relationships are inverted.

RESULTS

Preliminary Data Analyses

Skewness and kurtosis were acceptable (SK<|3| and Ku<|8-10|) (Tabachnick & Fidell, 2014) and suggested our data did not present severe violations of normality. No outliers were detected. Also, given that incomplete questionnaires were not allowed by the online platform, no missing data were found.

Descriptive and correlation analyses

Table 1 depicts results from descriptive analysis, in which mean values of all variables were similar to those reported in studies of CP. It is worth noting that mean scores of depressive symptoms were below the clinically significant ones. Nevertheless, descriptive results show that our sample presented levels of normal (*n* = 57; 53.3%), mild (*n* = 12; 11.2%), moderate (*n* = 21; 19.6%), severe (*n* = 8; 7.5%) and extremely severe (*n* = 9; 8.4%) depressive symptoms.

Results from correlational analyses show that pain intensity was significantly correlated with functional impairment and with fears of self-compassion, and not with the other variables in study. Interestingly, functional impairment was significantly associated with all variables, except for fears of self-compassion. Additionally, depressive symptoms were significantly associate with all variables in study: negatively correlated with self-compassion and social safeness and pleasure, and positively correlated with the three subscales of fears of compassion (for others, from others and for self). Also, self-compassion presented positive associations with social safeness and pleasure, and negative associations with the three subscales of fears of compassion. Also expectedly, results show a negative association between all three subscales of fears of compassion, with a stronger association with fears of compassion from others. Finally, all three subscales of fears of compassion were correlated in the expected direction. These results did not change significantly when conducted a partial correlation analysis while controlling for the number of CP diagnoses.

Table 1

Mean (M), Standard Deviation (SD) Range of scores (Min-Max) of all variables, and Pearson moment correlation between all variables in the total sample (N = 107)

				Correlations						
Measures	*M*	*SD*	Min-Max	1	2	3	4	5	6	7
1.Pain intensity	5.19	1.96	0.67-9.67	-	-	-	-	-	-	-
2.Functional impairment	22.11	9.55	4.00-40.00	$.41^{***}$	-	-	-	-	-	-
3.Depressive symptoms	5.31	4.64	0.00-17.00	.15	$.48^{***}$	-	-	-	-	-
4.Self-compassion	19.27	4.66	8.00-30.00	-.16	$-.24^{*}$	$-.53^{***}$	-	-	-	-
5.Social safeness and pleasure	39.20	10.47	11.00-55.00	.05	$-.23^{*}$	$-.54^{***}$	$.32^{***}$	-	-	-
6.Fear of compassion for others	17.71	8.99	0.00-40.00	.02	$.21^{*}$	$.44^{***}$	$-.32^{***}$	$-.32^{***}$	-	-
7.Fear of compassion from others	12.51	9.22	0.00-38.00	.14	$.21^{*}$	$.56^{***}$	$-.41^{***}$	$-.57^{***}$	$.62^{***}$	-
8.Fear of compassion for self	13.15	11.47	0.00-45.00	$.20^{*}$	.17	$.50^{***}$	$-.34^{***}$	$-.40^{***}$	$.48^{***}$	$.61^{***}$

Note. *** p <.001; ** p < .01; * p < .05

For a correlation, the effect size is the absolute value of r (Cohen, 1992).

Mediation analysis

A mediational model was built in order to test if fears of compassion (for others, from others and for self) mediated the relationship between self-compassion and social safeness and pleasure, while controlling for the effect of depressive symptoms, pain intensity and functional impairment. Results of the overall model are depicted in Table 2.

Table 2

Regression coeficients and model summary information (N = 107)

	b	SE	*p*	LLCI	ULCI	R^2	F	*p*
Self-compassion	.03	.21	.872	-.31	.37			
Fear of compassion for others	.16	.12	.167	-.03	.36			
Fear of compassion from others	-.53	.13	< .001	-.74	-.31	.43	10.78	.000
Fear of compassion for self	-.05	.09	.570	-.21	.10			
Depressive symptoms	-.65	.26	.014	-1.07	-.22			
Functional impairment	-.11	.11	.31	-.28	.07			
Pain intensity	1.15	.47	.02	.37	1.94			

The model explained 43% of the variance in social safeness and pleasure, and results show that social safeness and pleasure in the overall model was significantly predicted by fears of compassion from other (*b* = -.53, *p* < .001, 90%CI = -.742/-.309), depressive symptoms (*b* = -.65, *p* = .014, 90%CI = -1.073/-.218) and pain intensity (*b* = 1.15, *p* = .016, 90%CI = .373/1.936), but not by fears of compassion for other (*b* = .16, *p* = .167, 90%CI = -.031/.356), for self (*b* = -.05, *p* = .570, 90%CI = -.207/.101), self-compassion (*b* = .03, *p* = .872, 90%CI = -.307/.374) nor functional impairment (*b* = -.11, *p* = .314, 90%CI = -.281/.068). Indirect effect results show that the relationship between self-compassion and social safeness and pleasure was mediated by fears of compassion from others (*b* = .16, 90%CI = .019/.370), but not by fears of compassion for others (*b* = -.04, 90%CI = -.182/.007) nor by compassion for self (*b* = .01, 90%CI = -.010/.093). The power of the indirect effect was calculated using an online app, assuming N = 107 and $\alpha = .05$, and results showed a power of 86.8%. Finally, the direct effect of self-compassion on social safeness and pleasure was non-significant (*b* = .03, *p* = .872, 90%CI = -.307/.374).

Additionally, in order to examine the specific change in the explanation of the variance of social safeness and pleasure, we have conducted multiple hierarchical regression in three steps: in step 1, a simple linear regression of self-compassion predicting social safeness and pleasures was conducted (R^2 = 10.4%). Then, in step 2 all three subscales of fears of compassion were added to the model and increased 23.5% of the explanation of social safeness (R^2 = 33.9%). Finally, in order to control for the effect of depressive symptoms, pain intensity and functional impairment, these variables were added to the model, which added 9.4% of the explanation of social safeness (R^2 = 43.3%).

Finally, given the cross-sectional design of this study, and the potential circularity of the relationship between these psychological processes, we have tested an inverted mediational model in which self-compassion is predicted by social safeness and pleasure and mediated by fears of self-compassion, while controlling for depressive symptoms, pain intensity and functional impairment. Results showed that the overall model explained 31.1% of self-compassion, but none of the predictors were significant, except for depressive symptoms (b = -.44, p = .001, 90%CI = -.647/-.241), and neither fears of compassion for others (b = .00, 90%CI = -.004/.028), fears of compassion from others (b = .02, 90%CI = -.018/.066), nor fears of compassion for self (b = -.00, 90%CI = -.021/.017) significantly mediated this association.

DISCUSSION

The current study is based on previous research that suggests the benefits of self-compassion in CP (e.g. Purdie & Morley, 2016), and adds to the literature by exploring the role of fears of compassion in the relationship between self-compassion and feelings of safeness and pleasure in the social context of women with CP.

Results from correlation analyses showed that pain intensity was not significantly correlated with depressive symptoms, self-compassion, social safeness, nor fears of compassion, but was significantly associated with fears of self-compassion. Contrarily, functional impairment was significantly correlated with all variables in the study, except for fears of self-compassion. These results seem to be in line with previous research pointing out that pain intensity and depression present weak (e.g. Garbi et al., 2014) or even non-significant associations (Carvalho et al., 2018), and that pain disability is more strongly related to positive psychological outcomes (Börsbo et al., 2009). More interestingly, these results seem to point out that while pain intensity correlates with fears of being self-compassionate in difficult situations, functional impairment does not. One possible way of reading these results is through the potential misunderstandings and beliefs about what compassion really is. Participants might have viewed self-compassion as self-indulgence, self-pity or as an attitude of resignation (Gilbert, 2005, 2010) towards their pain intensity, thus viewing it as a counterproductive experience that would lead to less effective attempts to control and diminish their pain. Indeed, when we look at the items assessing fears of self-compassion (e.g. "I feel that if I am too compassionate with myself, bad things will happen", "I worry that if I start to develop compassion for myself I will become too dependent on it") (Gilbert et al., 2014), it seems to corroborate that those with higher pain intensity might view self-compassion as an obstacle to self-manage their pain experience. Also, correlation results corroborate previous research that shows that self-compassion is negatively correlated with depressive symptoms (e.g. MacBeth & Gumley, 2012), including in CP samples (e.g. Costa & Pinto-Gouveia, 2013; Carvalho et al, 2018). It is possible to make sense of this association through different angles: self-compassion seems to encompass the ability to see personal suffering as a common human experience (e.g. Neff, 2003), diminishing feelings of isolation (Neff, 2016). Also, it seems that self-compassion entails a motivational orientation to action (Gilbert et al., 2017) that may be related to behavioral activation and reduction of demobilization and cognitive biases and rumination (Gilbert, 2007) present in depression. In a different yet complementary level of analysis, it seems that self-compassion is related to oxytocin systems (e.g. Rockliff et al., 2011), which are associated with feelings of contentment and well-being (Ishak et al., 2011) that counteract depressive symptoms. Also, our results suggest that being self-compassionate is positively correlated with feeling safe and experiencing pleasure in social relationships, while both self-compassion and social safeness were negatively associated with fears of compassion. Although to our knowledge these results are new in CP, they seem to corroborate existing studies in non-CP samples. For example, studies show that the ability to experience self-compassion is negatively connected to fearing feelings of compassion (Gilbert et al., 2011), and that being able to be self-compassionate is associated with attachment-related memories of being safe in social contexts (Matos et al., 2017) and with current feelings of social safeness (Kelly & Dupasquier, 2016). Interestingly, it is worth mentioning that self-compassion was more strongly correlated with fears of receiving compassion from others, than with fears of being self-compassionate. This seems to echo the theoretical (Gilbert, 2005, 2010, 2014) and empirical data (Cozolino, 2007; Mikulincer & Shaver, 2007) suggestion that the ability to cultivate self-compassion is related to the experience of being cared for and soothed by others, and that when this does not occur it may produce blocks in the ability to receive compassion from others (Gilbert et al., 2014).

A mediational model was tested in order to examine the role of fears of compassion in the relationship between self-compassion and social safeness. As expected, results seem to indicate that being able to be compassionate towards oneself is related to having less fears of being the recipient of warm and soothing affiliative emotions from others (fears of compassion from others), which in turn is related to experiencing more pleasurable emotions and feelings of safeness in social situations (e.g. contentedness and connectedness). This was not related to participants′ level of pain intensity, nor pain-related functional impairment, nor the presence of depressive symptoms, as these were controlled for by introducing them in the model as covariates. This seems to echo the theoretical rationale that self-compassion is rooted in attachment-related systems (Gilbert, 2005, 2010). In specific to the context of CP, one possible reading of these results follows the interconnectedness of the affect-regulation systems (Gilbert, 2014). The ability to respond to CP-related setbacks and difficulties in a warm and soothing manner (self-compassion) may counteract the threat-related cognitive and emotional outputs that surround the experience of receiving care from others (e.g. fear of being a burden, not worthy of affection nor kindness from others), which in turn result in more feelings of safeness and connectedness in social relationships and environments. Interestingly, fears of compassion from others were the sole mediator. Although the non-significant mediation of fears of compassion for others was not a surprise, given that previous studies have found consistent evidence for its poor predictive effect (e.g. Gilbert et al., 2014; Gilbert et al., 2012), the non-significance of fears of self-compassion was not expected. This seems to suggest that when considering social contexts, the relevance of self-compassion in producing social safeness and connectedness in CP patients has less to do with fears of being self-compassionate, and more to decreasing blocks in receiving care and kindness from others. It is also worthy to consider that other psychological processes might operate these relationships and provide a more complex picture of the role of fears of self-compassion. It may be the case that self-criticism, external shame and social rank factors (Gilbert, 2005) are relevant psychological processes that may moderate this mediation. Previous literature suggests that high self-critical individuals are resistant to produce self-compassionate images (Gilbert & Procter, 2006). It may be the case that the mediational effect of fears of self-compassion is conditional to participants´ levels of self-criticism. Future studies should explore this hypothesis.

Finally, although our model building followed a theory-driven hypothesis, the cross-sectional nature of this study, as well as the potential circularity of these psychological processes, prompted us to test an alternative model in which social safeness predicted self-compassion through fears of self-compassion. Results showed all three fears of compassion did not significantly mediate this relationship, which seems to corroborate our hypothesized model.

Several limitations should be taken into consideration when interpreting these results. Firstly, the cross-sectional design does not allow for conclusions on causality. Although we have tested an alternative model, this is not sufficient to guarantee the causality underlying our hypothesized model. Future studies should consider longitudinal and/or experimental designs in order to do so. Also, our sample was composed solely of women, which prevents us from generalizing these results to other genders. Also, our sample presented a relatively high level of education. Future studies should consider this variable and test whether these results are replicated in a sample of women with lower levels of education. Additionally, the sample was of Portuguese women, which should prevent us from generalizing results into other nationalities. Cross-cultural studies with multi-group analyses should be conducted in order to explore model (in)variance and test differences between these variables in different countries. Finally, the tested model is an incomplete one, as other relevant psychological processes might play a role. Specifically, future studies should examine the role of different forms of self-criticism and explore if the models in invariant in patients with different levels of self-criticism. This may yield crucial information that would inform psychological interventions with CP patients high in self-criticism.

Although these results align with other studies that explore fears of compassion from others and negative outputs (e.g. Gilbert et al., 2014; Kelly et al., 2013) and with social safeness (e.g. Matos et al., 2017), to our knowledge this study is the first one that explores fears of compassion as mediators of the relationship between self-compassion and social safeness, and the first to examine the role of fears of compassion in CP. This study provides particularly relevant information for psychological interventions in CP as it adds a new layer of understanding of the role of social relationships and social connectedness in CP. Specifically, the current study presents data that potentially argues for the importance of patient-focused phenomena such as their ability to receive support, care and kindness from others, and the importance of feeling safe in their social environments, when addressing social environments in CP. The current study provides evidence for the importance of promoting a sense of safeness and connectedness in CP patients, and particularly for the necessity of reducing fears of receiving care and compassion from others through the cultivation of self-compassion. This study suggests that psychological interventions in CP that focus on promoting engagement and connection to social relationships may benefit from including exercises that increase self-compassion (e.g. compassionate self, safe place, loving-kindness meditation), as well as practices that facilitate the flow of compassion (e.g. flows of compassion exercises, particularly compassion flowing into oneself).

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Study VII - Above and beyond emotional suffering: the unique contribution of self-compassion and its qualities in chronic pain.

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Above and beyond emotional suffering: the unique contribution of compassionate and uncompassionate self-responding in chronic pain

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Abstract

Studies have shown that self-compassion plays a protective role against depression in women with chronic pain (CP). However, the majority of studies in CP have used the total score of the self-compassion scale (SCS), which have raised concerns due to potential overlap, not only between the uncompassionate self-responding factors and psychopathology, but also between self-compassion as a whole and other well-known psychological processes (e.g., mindfulness, acceptance, psychological flexibility). This calls for a more nuanced understanding of which components of (un)compassionate self-responding adds to better mental health in CP. This study explores the unique contribution of compassionate and uncompassionate self-responding to depressive symptoms in women with CP undergoing pain consultation (N=49). Correlation analyses suggest that compassionate self-responding only significantly correlates with progress in valued living, while the uncompassionate self-responding significantly correlates with pain fusion, pain avoidance, obstructions to valued living and depression. Multiple regression analysis showed that self-compassion contributes to depressive symptoms (R^2=8%) above and beyond pain intensity and disability (R^2=12%) and psychological (in)flexibility processes (R^2=31%), and uncompassionate (but not compassionate) self-responding uniquely contributes to depressive symptoms (sr^2=18%). Findings suggest that uncompassionate self-responding is a stronger contributor to depressin in CP than compassionate self-responding. Clinical implications are further discussed.

Key-words: chronic pain; pain disability; depression; self-compassion; psychological inflexibility.

INTRODUCTION

Chronic Pain (CP) is an impactful medical condition characterized by constant or sporadic pain or discomfort for at least 3 months [1], with great impact on functioning [e.g., 2]. It is well-established the role of psychological processes in the etiology of CP symptomatology, in particular their impact on depressive symptoms [e.g., 3].

Self-compassion is described as the ability to be sensitive to personal suffering and motivated to courageously alleviate it [4,5], and it has been theoretically proposed [6] and empirically suggested [7] to be beneficial in CP, even when it is not a direct focus of a psychological flexibility program [8]. Indeed, self-compassion seems to be a cross-sectional predictor of depressive symptoms [9], of negative affect and pain disability [10], and to prospectively predict depressive symptoms [11]. Nevertheless, a more in depth analysis of the role of self-compassion is needed to better understand its unique role in CP, particularly comparatively to other related psychological processes. Also, there seems to be an ongoing discussion on which subcomponent(s) of self-compassion contribute to the beneficial or detrimental effect of the overall construct. For example, one study found that the role of self-compassion depended on how its widely used measure [Self-Compassion Scale; 4] was examined: while the total score was strongly correlated to depression, its association was weak when considering exclusively the compassionate self-responding subcomponents (self-kindness, common humanity, mindfulness) rather than the uncompassionate self-responding ones (self-judgment, isolation, over-identification) [12]. This taps into the fact that a great portion of the studies on self-compassion in CP have only been focused on self-compassion as a whole, rather than exploring its subcomponents and providing a more fine-tuned picture of its benefits. This is particularly relevant when considering the potential overlap of self-compassion and related psychological processes such as psychological (in)flexibility, acceptance and mindfulness [for a topical discussion, see 13]. For example, one study found that the subcomponents self-judgment, isolation and over-identification load into a fusion/avoidance psychological inflexibility process, and common humanity and mindfulness load into an underlying present moment awareness process [14]. Another recent study explored the role of self-compassion in depression in CP, but did not report the unique contribution of its subcomponents nor controlled for the effect of related constructs [15]. It is particularly underexplored the relationship between self-compassion and valued living, even though tentative data seem to corroborate it by showing that self-compassion is related to the behavioral component of acceptance of pain [16]. Indeed, due to potential conceptual overlap, it is important to explore the subcomponents of self-compassion while controlling for psychological processes related to acceptance, valued action and present moment awareness [14], given that these also seem to contribute to depression in CP [e.g., 17].

The current study aims to explore the unique role of the subcomponents of self-compassion in depressive symptoms in CP. We hypothesize that uncompassionate self-responding, but not compassionate self-responding, is a significant predictor of depression, above and beyond pain disability, fusion and avoidance, and valued living.

METHOD

Participants and Procedure

The current study was conducted in a sample of women with musculoskeletal CP (N = 49) who were undergoing pain management consultation in a Portuguese healthcare unit. The physician assessed inclusion criteria (1. having CP; 2. age > 18 years) and invited eligible patients to participate, informed about anonymity of data and assured the voluntary nature of the study. Then a clinical psychologist assessed for exclusion criteria (1. severe clinical depression; 2. psychosis; 3. non-suicidal self-injury; 4. suicide attempt(s) in the last 6 months; 5. substance abuse) using an adapted version of the SCID-1. The current sample had a mean age of 50.49 (SD = 7.69). The majority were married (*n* = 33; 67.3%) and were currently employed (*n* = 31; 66.0). The majority of participants had a primary education (*n* = 29; 59.2%), some had a high school degree (*n* = 12; 24.5%) and others a bachelors or higher education degree (*n* = 8; 16.3%). The majority had fibromyalgia (n = 25; 55.6%) and/or low back pain (*n* = 16; 35,6%) and/or other (*n* = 21; 46.7%), were taking more than 2 medications for CP (*n* = 43; 87.8%), of which 24 (48.98%) were taking opioids. and some had other chronic illnesses (*n* = 17; 34.7%), such as type-II diabetes (*n* = 3; 17.6%), hypothyroidism (*n* = 2; 11.8%), chronic gastritis (*n* = 2; 11.8%), and/or other (*n* = 10; 59%). The study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra.

Measures

Pain intensity was assessed with Numeric Pain Rating Scale [NPRS; 18], which measures pain intensity on a 11-point scale (0 = ‘‘No pain’’; 10 = ‘‘Worst imaginable pain’’). A composite was calculated with the mean of 1) pain currently experienced, 2) lowest pain in last 24h, 3) highest pain in last 24h. Pain disability was assessed with the Pain Disability Index [PDI; 19], which measures on an 11-point scale (0 = no disability; 10 = worst disability) the degree of disruption in 7 daily life caused by pain. Depressive symptoms were measured with the Depression, Anxiety and Stress Scale 21-items version [DASS-21; 20]. For the purpose of this study, only the depression subscale was considered, which is composed of 7-items assessed on a 4-point scale (0 = did not apply to me at all; 3 = applied to me very much or most of the time). Pain fusion and pain avoidance was assessed through Psychological Inflexibility in Pain Scale [PIPS; 21], which measures pain-related psychological inflexibility on a 7-point scale (1 = never true;

7 = always true), with higher scores suggesting higher pain fusion and avoidance. Valued living was assessed with the Valuing Questionnaire [VQ; 22], composed of 10-items that measure obstacles to and progress in valued living on a 7-point scale (0 = not at all true; 6 = completely true). Self-compassion was assessed with the Self-Compassion Scale [SCS; 4]. It measures 6 domains of compassionate self-responding (self-kindness, common humanity and mindfulness) and uncompassionate self-responding (self-judgment, isolation, over-identification). It is composed of 26-items assessed on a 5-point scale (1 = almost never; 5 = almost always). The psychometrics of all measures have been examined in chronic pain samples. The portuguese validated versions of each scale were used.

Data Analyses

All statistical analyses were conducted using SPSS statistics software version 23.0 (IBM corp., 2011). Pearson´s correlation coefficients were calculated to examine patterns of association between the self-compassion scale components, pain-related and depressive symptoms, and psychological (in)flexibility processes between variables in study. Hierarchical regression analyses were performed to explore which components of the SCS uniquely contributed (unique variance: sr^2) to depressive symptoms in CP above and beyond pain disability and psychological (in)flexibility processes. This was examined by progressively adding to the model variables in four steps: step 1) pain disability; step 2) pain fusion and avoidance; step 3) obstacles and progress in valued living; step 4) self-compassion.

RESULTS

Results from correlation analysis showed that the uncompassionate self-responding was significantly correlated with psychological inflexibility in pain, with obstructions to valued living and depression. Pain intensity was correlated with fusion with pain and pain disability. Compassionate self-responding only significatly correlated with progress in valued living. Pain intensity only correlated significantly with pain fusion. Pain disability correlated significantly with psychological (in)flexibility processes, except progress in valued living (see Table 1).

To better understand the unique contribution of the SCS components to depressive symptoms, hierarchical regression analyses were conducted (see Table 2).

Results showed that depressive symptoms were only significantly predicted by the uncompassionate self-responding component of the SCS (unique variance: $sr^2 = 0.18$) above and beyond pain intensity and disability, pain fusion and avoidance, and obstruction and progress to valued living. It should be noted that the SCS contributes 8% to the variance of depressive symptoms, above and beyond pain intensity and disability (R^2=12%), pain fusion and avoidance (R^2=31%) and valued living (R^2=13%).

Table 1. Means, Standard Deviations and Intercorrelations between variables (N = 49)

Variables	M	SD	α	1	2	3	4	5	6	7	8	9
1.Compassionate self-responding	40.77	6.88	.80	-	-	-	-	-	-	-	-	-
2. Uncompassionate self-responding	40.98	10.45	.92	-0.22^{ns}	-	-	-	-	-	-	-	-
3. Pain fusion	37.18	5.65	0.82	-0.04^{ns}	**0.48****	-	-	-	-	-	-	-
4. Pain avoidance	52.59	12.51	0.92	-0.03^{ns}	**0.62*****	**0.67*****	-	-	-	-	-	-
5. Obstructions to valued living	17.18	8.36	0.85	-0.17^{ns}	**0.62*****	**0.38****	**0.59*****	-	-	-	-	-
6. Progress in valued living	21.28	6.33	0.81	**0.33***	-0.09^{ns}	-0.24^{ns}	-0.19^{ns}	**-0.32***	-	-	-	-
7. Pain Intensity	6.32	1.52	0.87	0.05^{ns}	0.24^{ns}	**0.42****	0.25^{ns}	0.23^{ns}	-0.04^{ns}	-	-	-
8. Pain Disability	39.67	11.54	0.86	0.19^{ns}	0.28^{ns}	**0.28***	**0.41****	**0.32***	0.06^{ns}	**0.41****	-	-
9. Depressive symptoms	8.65	5.44	0.89	-0.24^{ns}	**0.70*****	**0.45****	**0.61*****	**0.67*****	**-0.35***	0.24^{ns}	**0.30***	-

* p < .05, ** p < .01, *** p < .001, ns = non significant. Bold values indicate statistical significance.

Table 2. Hierarchical multiple regression analysis of predictors of depressive symptoms (N = 49).

Blocks	R^2	ΔR^2	$\beta^{(p\text{-value})}$	Unique Variance sr^2
Step 1. Pain Intensity and Disability	0.12	0.12		
Pain Intensity			$0.14^{(0.39)}$	0.02
Pain Disability			$0.27^{(0.10)}$	0.07
Step 2. Pain Fusion and Avoidance	0.44	0.31		
Pain Intensity			$-0.01^{(0.96)}$	0.00
Pain Disability			$0.08^{(0.60)}$	0.01
Pain Fusion			$0.16^{(0.36)}$	0.02
Pain Avoidance			**$0.50^{(0.01)}$**	**0.17**
Step 3. Valued living	0.56	0.13		
Pain Intensity			$-0.02^{(0.85)}$	0.00
Pain Disability			$-0.04^{(0.78)}$	0.00
Pain Fusion			$0.13^{(0.45)}$	0.02
Pain Avoidance			$0.29^{(0.11)}$	0.07
Values Obstruction			**$0.40^{(0.01)}$**	**0.17**
Values Progress			$-0.09^{(0.46)}$	0.02
Step 4. Self-compassion	0.65	0.08		
Pain Intensity			$-0.01^{(0.96)}$	0.00
Pain Disability			$0.03^{(0.81)}$	0.00
Pain Fusion			$-0.03^{(0.87)}$	0.00
Pain Avoidance			$0.19^{(0.27)}$	0.04
Values Obstruction			$0.24^{(0.11)}$	0.07
Values Progress			$-0.16^{(0.19)}$	0.05
Compassionate self-responding			$0.02^{(0.84)}$	0.00
Uncompassionate self-responding			**$-0.44^{(0.01)}$**	**0.18**

Pain Disability = Pain Disability Index; Pain Fusion and Avoidance = Psychological Inflexibility in Pain Scale; Valued living = Valuing Questionnaire; Self-compassion = Self-Compassion Scale. Bold values indicate statistical significance.

DISCUSSION

A pattern of associations seems to suggest that the uncompassionate self-responding subcomponent of the SCS (self-judgment, isolation, over-identification), and not the compassionate self-responding (self-kindness, common humanity, mindfulness), is significantly correlated to depressive symptoms. It should be noted that the current sample did not present clinically severe levels of depression, given that severe depression was an exclusion criteria. This warrants careful interpretation of results and extrapolation for severely depressed CP patients. Nonetheless, results seems to echo previous results that suggested that the uncompassionate self-responding subcomponents of the SCS are the ones greatly contributing to the effect of SCS [12]. Interestingly, while uncompassionate self-responding was the one correlated with obstructions in valued living, it was compassionate self-responding that correlated with progress in valued living, which seems to align with the assertion that compassion has a action-orientation [5.16]. Particularly in CP, this calls for a larger discussion and further empirical analysis of whether self-compassionate programs in CP operate through an increase in self-compassionate attributes (increase in self-kindness, the acknowledgement of suffering as part of the common humanity, and a mindful stance) or rather a decrease of self-directed judgment, feelings of isolation and an over-identification with personal difficulties and suffering. Indeed, it seems that one study found that it does increase self-compassionate attributes in women with fibromyalgia [7], however it did not control for the effect of the uncompassionate self-responding attributes. When examining the unique contribution of the SCS components, uncompassionate self-responding emerged as the only significant predictor of depressive symptoms, above and beyond pain intensity and disability and (in)flexibility processes, suggesting that pain management programs that aim to decrease depressive symptoms would benefit from focusing on the specific uncompassionate subcomponents (self-judgment, but also feelings of isolation and overidentification). This should be interpreted with caution, given that a more comprehensive analysis, with larger sample sizes, could provide evidence that compassionate self-responding indeed impacts on depressive symptoms not directly, but through other processes, such as behavior activation and/or commitment to valued action. Nonetheless, these results corroborate previous results showing that the SCS significantly predicts depressive symptoms in CP [e.g. 11, 15], and furthers the results by examining the unique contribution of its subcomponents while controlling for intensity, disability and psychological (in)flexibility processes [14]. When looking thoroughly to the uncompassionate items of the SCS (particularly the isolation ones), it seems clear that decreasing uncompassionate self-responding does not merely equate to promoting behavioral activation nor valued based action, but rather decreasing a sense of social disconnection, downward comparative criticism and feelings of failure when experiencing setbacks. However, these results should be interpreted with caution due to study limitations. For one, this study should be replicated in a larger sample, which would allow the test more complex models that would provide a much thorough analysis. Also, the all-female sample does not allow generalization to other genders. In fact, there seems to be gender differences in self-compassion (men reported to be more self-compassionate) [23], but to our knowledge this have never been explored in CP. Additionally, the relatively low levels of depressive symptoms does not allow generalization of these results to participants with severe depression. Finally, the cross-sectional nature of the study does not allow for causality. Future studies should consider experimental and longitudinal designs to establish causality and/or temporal relationships between variables. Nevertheless, the current study contributes to a better understanding of self-compassion in CP that might inform psychological acceptance-, mindfulness- and compassionate-based pain management programs. It provides evidence for the importance of focusing on uncompassionate self-responding not exclusively through increasing self-kindness, mindfulness and common humanity, but also by promoting feelings of safeness, connectedness and belongingness. Indeed, it seems that the focus should be not only on decreasing self-judgment, but also on helping deactivate threat-focused feelings of isolation [5] that may result from a sense of separateness and disconnection due to pain-focused internal experiences. Compassion-based exercises to CP may benefit not only from focusing on acceptance and self-kindness, but also from developing feelings of overall connectedness and safeness.

AUTHORS´ STATEMENT

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Informed Consent: Informed consent was obtained from all individual adult participants included in the study.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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Chapter 5: Time-lagged examinations of psychological processes and depressive symptoms

Study VIII - Cognitive fusion and depressive symptoms in women with chronic pain: a longitudinal growth curve modelling study over 12-months

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Cognitive fusion and depressive symptoms in women with chronic pain: a longitudinal growth curve modelling study over 12-months

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Abstract

This study aims 1) to explore individual differences in women with chronic pain (CP) in regard to pain intensity, functional impairment, cognitive fusion and depressive symptoms, and 2) to longitudinally test whether cognitive fusion is a significant predictor of depression symptoms, while controlling for pain intensity and functional impairment, over a 12-month period. This study follows a longitudinal design, and was conducted in a sample of 86 women with CP who responded to an online battery of questionnaires in three equally-spaced assessment moments. In order to explore the growth trajectory of variables of interest, latent growth curve models were examined. Also, correlation analyses were conducted between demographic and illness-related variables and depressive symptoms, as well as between all variables in all assessment moments. Cognitive fusion and functional impairment (but not pain intensity) were significantly associated with baseline levels of depressive symptoms. Cognitive fusion significantly predicted the growth trajectory of depressive symptoms, while pain intensity and functional impairment did not. No demographic (age, marital status, education, socio-economic) nor illness-related variables (number of CP diagnoses, duration of CP, taking medication) were associated with depressive symptoms at any point. These results suggest that the trajectory of depressive symptoms in women with CP is not predicted by the intensity of pain nor pain-related functional impairment, but rather by the tendency to get entangled with internal experiences (e.g. thoughts, emotions, physical sensations) that may or may not be related to pain-specific contents. Clinical implications are discussed.

Keyword: chronic pain; depression; cognitive fusion; pain intensity; functional impairment.

INTRODUCTION

Depressive symptoms are a common experience in chronic pain (CP) (e.g. Jobski, Luque-Ramos, Albrecht, & Hoffmann, 2017; McDonald, Shellman, Graham, & Harrison, 2016). Studies have found a wide-ranging prevalence of depression in CP patients (e.g. Bair, Robinson, Katon, & Kroenke, 2003; Ho, Li, Ng, Tsui, & Ng, 2011), and CP patients with lower socioeconomic status (van Hecke, Torrance, & Smith, 2013) and lower level of education (Averill, Novy, Nelson, & Berry, 1996) seem to present higher levels of depressive symptoms. The common interaction between depressive symptoms and pain, as well as their overlap in emotional and physical complaints, have long raised questions regarding the causal relationship between pain and depression (e.g. Wörz, 2003). Indeed, the relationship between depression and chronic pain is complex (e.g. Brown, 1990; Wörz, 2003), with some studies suggesting a reciprocal relationship (e.g. Kroenke, Wu, Bair, Krebs, Damush, & Tu, 2011). However, some longitudinal results suggest that neither pain intensity nor pain disability per se significantly predict depression (e.g. Lerman, Rudich, Brill, Shalev, & Shahar, 2015). However, given that the co-occurrence of depression and CP yields greater negative interference on patients´ health and functioning (Rayner, Hotopf, Petkova, Matcham, Simpson, & McCracken, 2016), it is crucial to have a better understanding of the mechanisms through which depression and CP interact over time.

The role of psychological factors in the aetiology of CP symptomatology is widely recognized (e.g. Gatchel, Peng, Peters, Fuchs, & Turk, 2007), including the presence of depressive symptoms in CP (Turk, Okifuji, & Scharff, 1995). However, the majority of studies have focused on the content of specific thoughts and beliefs (e.g. Crombez, Eccleston, Van Damme, Vlaeyen, & Karoly, 2012), rather than on the psychological processes that underlie different thoughts. Indeed, there seems to be a growing interest in transdiagnostic psychological processes, and in process-based psychological approaches (Hayes & Hofmann, 2017). The Psychological Flexibility Model (PFM) is a transdiagnostic approach that suggests that psychological suffering is the result of excessive entanglement with internal experiences (e.g. thoughts, emotions, physical sensations), which in turn leads to actions that are guided by avoidance rather than by meaningful personal values and goals (Hayes, Strosahl, & Wilson, 1999). During the last two decades, the PFM has been a useful lens through which psychological suffering in CP is explored (Hughes, Clark, Colclough, Dale, & McMillan, 2017; McCracken, Barker, & Chilcot, 2014a; McCracken & Vowles, 2014), and several studies have found that psychological (in)flexibility reduces the impact of CP disability (e.g. McCracken & Velleman, 2010) and depressive symptoms in CP (Scott, Hann, & McCracken, 2016). However, although the impact of all core components of psychological (in)flexibility has been studied in laboratory (see Levin, Hildebrandt, Lillis, & Hayes, 2012 for an in depth discussion), some have been neglected in CP studies, perhaps due to a lack of suitable measures (McCracken & Morley 2014).

Cognitive fusion is a central component of psychological inflexibility. It is defined as the tendency to get entangled with one´s internal experiences, instead of looking at them as transient internal events (Greco, Lambert, & Baer, 2008; Hayes, Luoma, Bond, Masuda, & Lillis, 2006). In the context of CP, cognitive fusion is the underlying process of getting caught up in thoughts such as “this pain will never go away” or “this is unbearable”, and its pervasiveness comes from the fact that it cuts across different types of thought-contents that are relevant in CP (e.g. catastrophic, ruminative, hopeless, depressive) (McCracken & Morley 2014). Indeed, one study found that cognitive fusion mediates the relationship between pain catastrophizing and disability in young people with CP (Solé et al., 2016). Nonetheless, although some studies have pointed out its relevance as a predictor of emotional distress and depression (e.g. Gillanders et al., 2014), few studies have explored cognitive fusion in CP (McCracken, DaSilva, Skillicorn, & Doherty, 2014b; Scott, McCracken, & Norton, 2016). Those that did, found that cognitive fusion correlates with pain interference and quality of life (Wicksell, Renöfält, Olsson, Bond, & Melin, 2008), and with depression in CP (McCracken et al., 2014b). Recently, one study found that cognitive fusion uniquely predicts depressive symptoms, and it mediates the association between pain intensity and depressive symptoms in women with CP (Carvalho, Pinto-Gouveia, Gillanders, & Castilho, 2018), however the interpretation was limited by its cross-sectional design. Nevertheless, although results seem to corroborate the proposition that cognitive fusion is a detrimental process associated to negative outcomes in CP (Wiksell, Lekander, Sorjonen, & Olsson, 2010; Wicksell, Renöfält, Olsson, Bond, & Melin, 2008), longitudinal studies are needed to establish temporal associations between variables. One online 4-month longitudinal study conducted in muscle disorders found that cognitive fusion prospectively predicts life satisfaction and anxiety, but not depressive symptoms (Graham, Gouick, Ferreira, & Gillanders, 2016). Similarly, another study in a sample of older adults (age > 65) found that cognitive fusion did not mediate changes in depressive symptoms following a psychological intervention (Scott, Daly, Yu, & McCracken, 2017). However, an 18-month online longitudinal study found that cognitive fusion predicted changes in depressive symptoms in a sample of participants with irritable bowel disease (Trindade, Ferreira, & Pinto-Gouveia, 2018). These findings call for the necessity of more studies with robust methodologies and statistical analyses, in order to better understand the relationship between cognitive fusion, pain and depressive symptoms in CP over time.

Thus, the current study expands on previous literature by exploring the role of cognitive fusion on changes in depressive symptoms, while controlling for pain intensity and functional impairment, in a three-wave 12-month longitudinal design, in women with chronic pain. Based on previous literature suggesting that these variables tend to be stable over time (Dunn, Campbell, & Jordan, 2013; Trindade et al., 2018), we did not expect large changes in the outcome of depressive symptoms. Still, we hypothesized that cognitive fusion (but not pain intensity nor functional impairment) would predict the small amount of change in depressive symptoms that may be observed over twelve months.

METHOD

The current study is part of a larger one that aims to explore the role of psychological processes in predicting changes in depressive symptoms in adults with chronic pain. The study follows a time-lagged design with three assessment points: baseline (T0), 6-months (T1) and 12-months (T2).

Participants

Eighty-six women with musculoskeletal CP filled out an online survey with socio-demographic and medical questions, and self-report measures. Participants presented a mean age of 50.73 (*SD* = 10.84), and the majority completed high-school (*n* = 26; 30.2%) or a bachelor´s degree (*n* = 37; 43%). The majority of participants were employed (*n* = 63; 73.3%) and married (*n* = 51; 59.3%) or divorced (*n* = 20; 23.3%). More than half of our sample presented a middle socioeconomic status according to their occupation (n = 42; 48.8%).

Participants had fibromyalgia (*n* = 74; 86%), low-back pain (*n* = 11; 12.8%), arthrosis (*n* = 10; 11.6%) and/or rheumatoid arthritis (*n* = 9; 10.5%). Patients could report more than one diagnosis, with 77.9% (N = 67) having one diagnosis and 22.1% (N = 19) having two or more. Diagnoses were provided by one or more medical doctors, such as the rheumatologist (*n* = 68; 79.1%), general practitioner (*n* = 14; 16.3%), psychiatrist (*n*

= 7; 8.1%), and/or by other medical specialties (*n* = 70; 81.4%). Regarding duration of CP, 51 participants had CP for more than 10 years (59.30%), 23 from 5 to 10 years (26.70%), and 12 from 1 to 5 years (14%). Finally, the majority of our sample (N = 66; 76.7%) did not have psychotherapy for the last 12 months, and 34 of which (39.5%) reported that they never had psychotherapy. In terms of depressive symptoms, participants were not subject to a clinical diagnostic assessment. According to participants´ scores on DASS-21 (see measures section), our sample was composed of women with normal (n = 65), mild (n = 9) and moderate (n = 12) levels of depressive symptoms.

Procedure

Participants were collected through five national CP associations that advertised the study among patients through their mailing list. Interested patients were directed to a secure survey which comprised the battery of questionnaires. Before completing the survey, participants gave their informed consent and were informed about the purpose and confidentiality of data. The study was accessed by 479 participants, of which 246 completed the research battery (51%) at baseline. The sample was selected through the following inclusion criteria, which were self-reported: a) having constant or sporadic pain, unrelated to oncological disease, for three months or more; b) age above 18 years; c) having access to an online device to complete the survey. No exclusion criteria were considered. Nine men and six non-Portuguese women were further excluded from the study in order to have a homogeneous sample regarding gender and nationality. Eighty-six participants completed all three assessment points between February 2017 and March 2018. This study was granted approval by the Scientific and Ethics Committee of the University where the first author is conducting his research.

Measures

Participants filled out the following self-report measures at the three assessment points:

Pain intensity

Numerical Pain Rating Scale (NPRS; Hartrick, Kovan, & Shapiro, 2003; Ferreira-Valente, Pais-Ribeiro, & Jensen, 2011). This 11-item unidimensional scale is widely used to assess of pain intensity. NPRS presents 11 numbers from 0 (“No pain”) to 10 (“Worst imaginable pain”); higher scores thus indicate greater pain intensity. Using ratings from: 1) current pain; 2) highest pain in last 24h; 3) lowest pain in last 24h, a single score of average pain intensity was created. The current study found good values of Chronbach´s alpha in all three assessment points (see Table 2).

Functional impairment

Work and Social Adjustment Scale (WSAS; Mundt, Marks, Shear, & Greist, 2002). The WSAS is a 5-item measure of functional impairment in five domains: work, home management, social leisure activities, private leisure activities, and family and other relationships. Items are rated on a 9-point scale from 0 (“no impairment”) to 8 (“very severe impairment”). Higher scores indicate greater functional impairment. The original study found good internal consistencies in different samples (from α = .79 to α = 94). The current study also found good internal consistencies in all three assessment points (see Table 2).

Cognitive fusion

Cognitive Fusion Questionnaire-7 (CFQ-7; Gillanders et al., 2014; Costa, Marôco, & Pinto-Gouveia, 2017). This is a 7-item measure of cognitive fusion (e.g., “I get so caught up in my thoughts that I am unable to do the things that I most want to do”), which is rated on a scale from 1 (“Never true”) to 7 (“Always true”). The CFQ-7 showed good internal consistencies in its original (αs from 0.88 to 0.93 across five samples) and

Portuguese (αs from 0.89 to 0.94 across three samples) validations. See Table 2 for values of Cronbach alphas in the current study.

Depression symptomatology

Depression Anxiety Stress Scales (DASS-21; Lovibond & Lovibond, 1995; Pais-Ribeiro, Honrado, & Leal, 2004). This is a measure of depression, anxiety, and stress symptomatology over the previous week. Its 21 items are rated from 0 (“Did not apply to me at all”) to 3 (“Applied to me very much, or most of the time”). Only the depression symptomatology subscale was used in this study. This subscale presented showed good internal consistencies in DASS-21’s original ($\alpha = 0.88$) and Portuguese ($\alpha = 0.85$) validation studies. The current study found good internal consistency (see Table 2).

Statistical analyses

Descriptive and frequency analyses were conducted in order to examine demographic and medical characteristics. Associations between variables were analysed through Pearson correlation coefficients (Cohen, Cohen, West, & Aiken, 2003). These analyses were performed using SPSS (v. 24.0; IBM Corp, 2016).

Structural equation modelling (AMOS, version 22.0; Arbuckle, 2013) was used to perform latent growth curve models (LGM) (Willett & Sayer, 1994; Windle, 1997), which estimated the growth trajectory of pain intensity, functional impairment, cognitive fusion, and depression symptomatology. Latent growth curve modelling is a longitudinal analysis that calculates growth over a period of time. Each growth curve has a baseline level (the intercept factor) and a rate of change over time (the slope factor). The intercept factor is constant and consists of the initial level of the variable (intercept mean) and its individual differences between participants (intercept variance). The slope factor refers to the average rate of change (slope mean) and individual differences in patterns of growth (slope variance). The association between the intercept and slope factors, when positive, indicates that the lower the baseline, the larger the growth, and when negative, that the greater the baseline, the lower the growth.

Analyses of the effect of hypothesised predictors on the growth of depression symptomatology (outcome variable) were also conducted. The model of depression symptomatology was thus conditioned by adding pain intensity and cognitive fusion (model 1) and functional impairment and cognitive fusion (model 2) as predictors of the intercept and the slope factors. This analysis allows to test whether these predictors account for individual differences in basal levels of depression symptomology and for the differences in the rate of growth of this outcome.

The adequacy of the models was examined through several goodness of fit indices: Comparative Fit index (CFI), Tucker and Lewis Index (TLI), and Incremental Fit Index (IFI) that indicate a good adjustment to empirical data when around 0.95 (Hu & Bentler, 1999), and the Standardized Root Mean Squared Residual (SRMR) which indicates a good adjustment when < 0.08 (Hu & Bentler, 1999).

RESULTS

Preliminary analysis

The study variables did not seem to present a significant bias to normal distribution (Skewness ranged from -0.14 to 0.85, and Kurtosis from -1.14 to -0.11) (Kline, 1998). Results from correlations of demographic and medical variables with depression symptoms are presented in Table 1. It is interesting to note that depression symptoms at any time of assessment were not significantly linked to any demographic or medical variable.

Table 1.
Intercorrelation scores between demographic and medical variables, and depression symptoms (*N* = 86)

	1	2	3	4	5	6	7
1. Age	-						
2. Marital status	0.40***	-					
3. Level of education	.01	-0.11	-				
4. Socio-economic status	0.36**	-0.08	0.31*	-			
5. N. of CP conditions	0.03	0.02	0.11	-0.09	-		
6. Chronic pain duration	0.42***	0.19	-0.10	0.06	0.09	-	
7. Medication	0.010	-0.07	-0.11	0.05	0.09	-0.08	-
9. DASS-DEP T0	-0.03	-0.05	0.03	0.01	0.10	-0.10	-0.19
10. DASS-DEP T1	-0.09	-0.03	-0.09	0.06	0.06	-0.15	-0.06
11. DASS-DEP T2	0.01	0.10	0.00	-0.13	0.07	-0.06	-0.12

Note. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table 2 presents the correlations between pain intensity, functional impairment, cognitive fusion, and depression symptomatology at all times of assessment. All variables were significantly associated with each other, except for pain intensity that globally did not correlate with cognitive fusion and depression symptoms (with the exception of the significant correlations found between pain intensity at T2 and cognitive fusion at T2, and between depression symptoms at T1 and pain intensity at T2).

Table 2.

Cronbach's alphas, means, standard deviations, and intercorrelation scores between study variables (*N* = 86)

	α	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. NPRS T0	0.88	5.28	1.81	-										
2. WSAS T0	0.88	24.95	8.32	0.38***	-									
3. CFQ T0	0.95	23.76	10.83	0.13	0.49***	-								
4. DASS-DEP T0	0.94	6.13	5.46	0.10	0.49***	0.78***	-							
5. NPRS T1	0.87	5.14	1.91	0.60***	0.29**	0.07	0.05	-						
6. WSAS T1	0.94	23.30	9.59	0.36**	0.75***	0.39***	0.40***	0.39***	-					
7. CFQ T1	0.97	24.99	11.01	0.09	0.50***	0.75***	0.69***	0.16	0.55***	-				
8. DASS-DEP T1	0.92	5.55	5.11	0.19	0.56***	0.61***	0.70***	0.16	0.55***	0.74***	-			
9. NPRS T2	0.87	5.07	1.96	0.62***	0.42***	0.20	0.21	0.70***	0.38***	0.21	0.22**	-		
10. WSAS T2	0.92	22.12	9.76	0.34**	0.75***	0.39***	0.42***	0.35**	0.78***	0.52***	0.55***	0.47***	-	
11. CFQ T2	0.97	23.52	11.95	0.16	0.54***	0.76***	0.71***	0.18	0.51***	0.82***	0.77***	0.28**	0.62***	-
12. DASS-DEP T2	0.92	5.34	5.03	0.12	0.49***	0.62***	0.69***	0.07	0.47***	0.66***	0.74***	0.19	0.55***	0.77***

Note. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Non-conditioned models

Pain Intensity

The LGM was successfully fitted to the levels of pain intensity at the three assessment times: $\chi^2_{(1)} = 0.04$, $p = 0.873$; CFI = 1.00; TLI = 1.00; IFI = 1.00; SRMR = 0.00.

Basal levels of pain intensity were significantly different among participants (b = 2.97; S.E. = 0.73; Z = 4.09; $p < 0.001$) around a mean of 5.06 (S.E. = 0.21; Z = 24.23; $p < 0.001$). The non-significant estimate of slope's mean (b = 0.11; S.E. = 0.09; Z = 1.19; p = 0.235) indicated that there was no significant change over time in pain intensity. The non-significant variance around the mean growth (b = 0.13; S.E. = 0.28; Z = 0.48; p = 0.634) indicates that the growth rate of pain intensity was homogeneous among participants.

Functional impairment

The LGM was well fitted to functional impairment at the three times of assessment: $\chi^2_{(1)} = 0.276$, $p = 0.599$; CFI = 1.00; TLI = 1.00; IFI = 1.00; SRMR = 0.00.

Basal levels of functional impairment presented significant differences among participants (b = 84.07; S.E. = 17.31; Z = 4.86; $p < 0.001$) around a mean level of 22.08 (S.E. = 1.05; Z = 21.05; $p < 0.001$). Slope's mean was found to be significant, indicating a significant tendency for functional impairment to decrease at a mean rate of 1.42/year (S.E. = 0.35; Z = 4.02; $p < 0.001$). This growth rate was homogeneous among participants as indicated by the significant variance around the mean growth (b = 5.60; S.E. = 5.30; Z = 1.06; p = 0.291).

Cognitive fusion

The LGM was adequately fitted to cognitive fusion's levels assessed at the three moments: $\chi^2_{(1)} = 4.08$, $p = 0.044$; CFI = 0.98; TLI = 0.95; IFI = 0.98; SRMR = 0.00.

Initial levels of cognitive fusion presented individual differences among participants ($b = 116.03$; S.E. = 23.83; $Z = 4.87$; $p < 0.001$) around a mean level of 23.96 (S.E. = 1.27; $Z = 18.86$; $p < 0.001$). Slope's mean was non-significant ($b = 0.22$; S.E. = 0.43; $Z = 0.52$; $p = 0.605$), which shows that there was no significant change over time concerning participants' levels of cognitive fusion. The growth rate was homogeneous among participants ($b = 0.19$; S.E. = 7.84; $Z = 0.02$; $p = 0.981$).

Depression symptoms

The LGM was successfully fitted to depression symptoms measured at the three times of assessment: $\chi^2_{(1)} = 0.276$, $p = 0.599$; CFI = 1.00; TLI = 1.00; IFI = 1.00; SRMR = 0.00.

There were differences among participants regarding the basal levels of depression symptomatology ($b = 19.28$; S.E. = 4.58; $Z = 4.21$; $p < 0.001$) around a mean level of 5.29 (S.E. = 0.53; $Z = 9.90$; $p < 0.001$). There was no significant change over time in depression symptoms ($b = 0.38$; S.E. = 0.22; $Z = 1.69$; $p = 0.09$) and the growth rate of this variable was homogeneous among participants ($b = 0.50$; S.E. = 1.86; $Z = 0.29$; $p = 0.789$).

The correlations between intercept and slope were non-significant for all variables, showing that the basal level of each variable does not seem to be associated with its rate of change across time.

Predicting change

The effects of pain intensity and cognitive fusion on the growth of depression symptoms

A conditional model was fitted to data to explore the influence of pain intensity and cognitive fusion on the growth of depression symptoms (Figure 1). This model presented an excellent fit to the data: $\chi^2_{(3)} = 4.57$, $p = 0.206$; CFI = 0.99; TLI = 0.98; IFI = 0.99; SRMR = 0.03.

Results showed that pain intensity did not present a significant impact on baseline levels of depression symptoms (β = 0.06, *p* = 0.506). Results also demonstrated that pain intensity did not influence the growth rate of this outcome (β = 0.15, *p* = 0.169).

Cognitive fusion significantly predicted both the baseline levels (β = 0.64 *p* < 0.001), and growth rate (β = 0.35, *p* = 0.014) of depression symptoms.

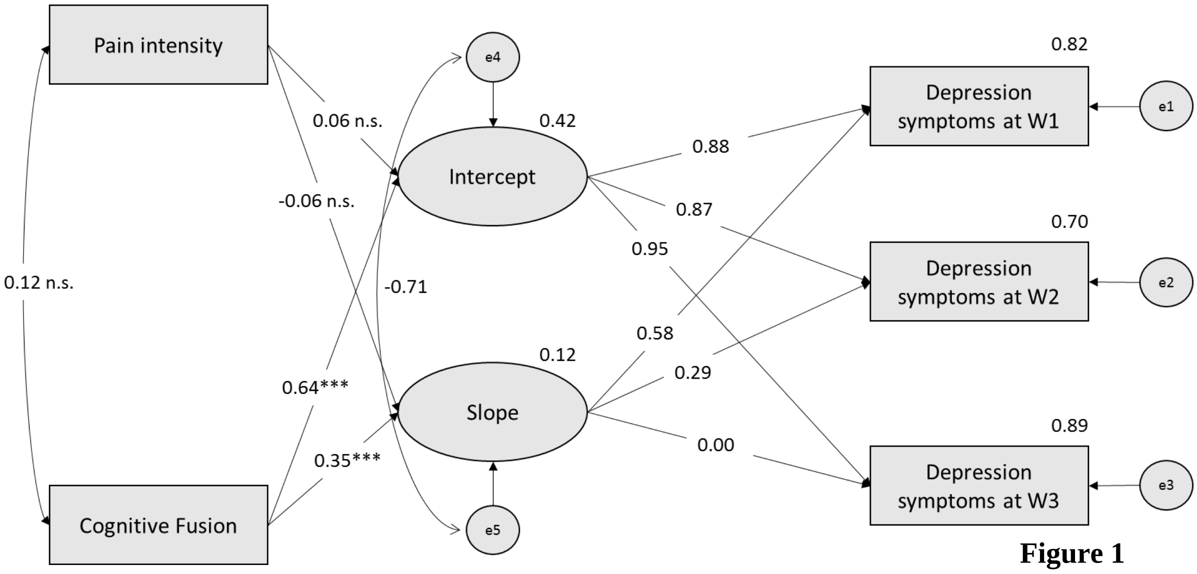

Figure 1

The influence of pain intensity and cognitive fusion in changes in depression symptoms (*N* = 86). W1 = wave 1 (T0); W2 = wave 2 (T1); W3 = wave 3 (T2)

The effects of functional impairment and cognitive fusion on the growth of depression symptoms

A conditional model was fitted to data to analyse functional impairment and self-compassion influence the growth of depression symptoms (Figure 2). Model fit was excellent: $\chi^2_{(3)}$ = 6.21, *p* = 0.102; CFI = 0.99; TLI = 0.96; IFI = 0.99; SRMR = 0.02.

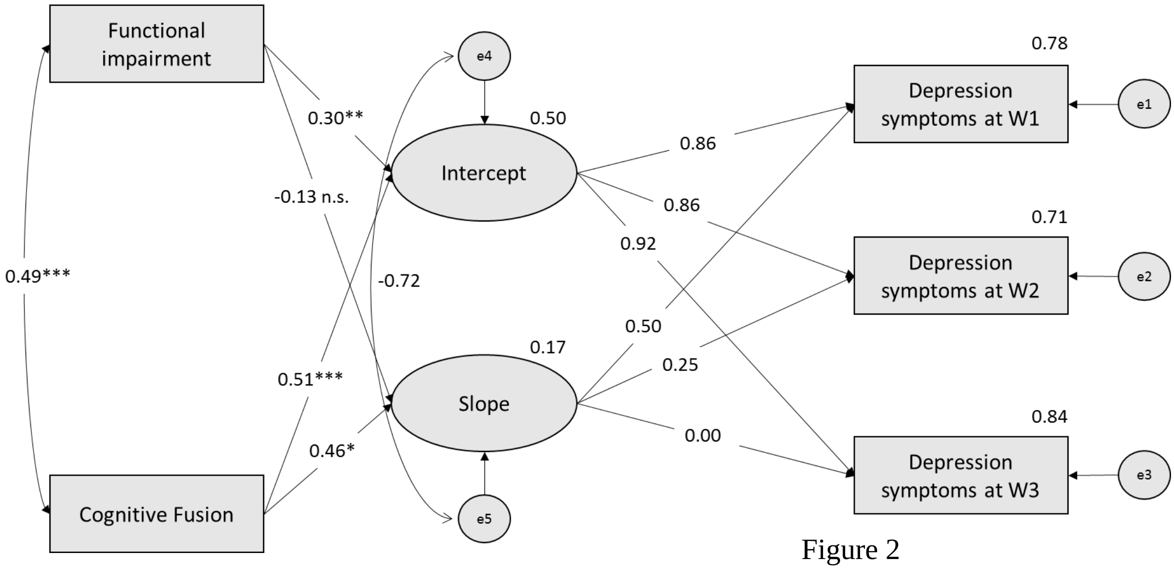

Figure 2

The influence of functional impairment and cognitive fusion in changes in depression symptoms (*N* = 86). W1 = wave 1 (T0); W2 = wave 2 (T1); W3 = wave 3 (T2)

Functional impairment presented a positive effect on baseline levels of depression symptomatology (β = 0.30, *p* = 0.005). Nonetheless, functional impairment did not influence the growth rate of the outcome (β = 0.13, *p* = 0.489). Cognitive fusion, on the other hand, significantly and positively impacted on the baseline levels of depression symptoms with an effect of 0.51 ($p < 0.001$), as well as on the growth rate of this outcome with an effect of 0.46 (*p* = 0.017).

DISCUSSION

The current study explored changes in pain intensity, functional impairment, cognitive fusion and depressive symptoms over a period of 12-months in a sample of women with CP, as well as the associations between these variables throughout three assessment points (baseline, 6-months, 12-months). This study examined whether changes in depressive symptoms during this period were longitudinally predicted by pain intensity, functional impairment and cognitive fusion.

Correlation results showed that the socio-demographic characteristics of our sample did not significantly associate to depressive symptoms at any time point, which is contrary to previous research suggesting that socio-economic status and level of education are associated with depression in CP (Averill et al., 1996; van Hecke et al., 2013). This might be due to a relatively low variance in our sample in terms of socioeconomic status, given that more than half of participants presented a middle socioeconomic status according to their occupation, which may have influenced this correlational result. More interestingly, our results seem to suggest that neither duration nor number of CP diagnoses significantly correlate with depressive symptoms at any time point. This seems to be in line with the ongoing discussion regarding the complex interaction between pain and depression, perhaps suggesting that there may be other variables, such as psychological processes, operating the relationship between pain and depression (Carvalho et al., 2018; Gatchel et al., 2007; Turk et al., 1995).

Correlation analyses show that cognitive fusion at baseline is significantly associated with depressive symptoms at all time points. This seems to be in line with previous studies that suggest that cognitive fusion is associated with depressive symptoms in chronic illness (e.g. Gillanders et al., 2014) and in CP (Carvalho et al., 2018; McCracken et al., 2014b; Scott et al., 2016; Wiksell et al., 2010; Wicksell et al., 2008). Also, results show that neither pain intensity nor pain-related functional impairment were significantly associated with depressive symptoms at baseline, at 6-months and 12-month assessments. Interestingly, and perhaps contrarily to some studies that suggest that depression results from the negative impact of having CP, and not the other way around (e.g. Brown, 1990; Wörz, 2003), results show that depressive symptoms at T0 is significantly correlated with functional impairment at T1 and T2, and depressive symptoms at T1 is significantly associated with pain intensity and functional impairment at T2. Though establishing conclusions regarding causal relationships is unwarranted due to the nature of correlation analysis.

Results from latent growth curve modelling showed that participants present significant differences on their levels of pain intensity, functional impairment, cognitive fusion and depressive symptoms at baseline, and, except for functional impairment (which decreased), none of them presented significant changes over the 12-months time period. Also, results show that the change rate of all variable was homogenous, i.e., did not significantly differ between participants.

Based on these results, as well as on previous studies that suggest that depressive symptoms in CP are greatly influenced by psychological processes (e.g. Gatchel et al., 2007; Turk et al., 1995), including cognitive fusion (e.g. Carvalho et al., 2018; McCracken et al., 2014b; Scott et al., 2016), we have tested two conditional models in order to examine the specific impact of pain intensity and cognitive fusion (Model 1) and functional impairment and cognitive fusion (Model 2) on depressive symptoms over 12-months. Results showed that cognitive fusion, but not pain intensity, significantly predicted both the baseline levels of depressive symptoms, as well as their changes over the 12-months. Similarly, although functional impairment significantly predicted the baseline levels of depressive symptoms, it did not predict changes in depressive symptoms throughout the 12-months. These results seem to suggest that changes in depressive symptoms were not explained by the intensity of pain nor the functional impairment that arise from having CP, but rather from the entanglement with internal experiences such as thoughts, emotions and physical sensations.

These results contribute to moving forward the understanding of the role of psychological processes in the aetiology of depression in CP. It suggests that cognitive fusion is a much more relevant factor in the development and/or maintenance of depression in CP than pain-specific symptoms such as pain intensity and pain-related functional impairment. These findings are based on previous research that found that cognitive fusion is associated with depressive symptoms in CP (e.g. McCracken et al., 2014b; Scott et al., 2016; Wiksell et al., 2010; Wicksell et al., 2008), and that it fully mediates the relationship between pain intensity and depressive symptoms (Carvalho et al., 2018). Furthermore, it adds to previous findings by conducting a more robust statistical procedure in a longitudinally designed study. Indeed, few studies have explored cognitive fusion longitudinally, and those that did found inconsistent results: one study in IBD found cognitive fusion to significantly predict depressive symptoms in an 18-month period (Trindade et al., 2018), another study found cognitive fusion to not predict depression in a 4-month period in a sample of participants with muscle disorders (Graham et al., 2016), and one intervention study found cognitive fusion to significantly predict changes in depression in a sample of older adults with CP (Scott et al., 2017). Given that cognitive fusion is a central psychological process in the growingly studied psychological flexibility model of CP (e.g. McCracken & Vowles, 2014), as well as theoretically conceptualized as an underlying process in several relevant psychological processes in CP aetiology (i.e. catastrophizing and avoidance) (e.g. McCracken & Morley 2014), it is crucial to better understand the role of cognitive fusion in CP.

These findings should be interpreted with adequate caution due to its limitations. First, it should be noted that the study was conducted in a sample of women, which makes it unwarranted to extrapolate this results to other genders. Although studies suggest that CP is more prevalent in women (Fayaz, Croft, Langford, Donaldson, & Jones, 2016), future studies should replicate these results in samples of different genders. Indeed, cognitive fusion is closely related to other psychological processes, such as rumination (e.g. McCracken et al., 2014a). It seems that rumination is less prevalent in men (Johnson

& Whiseman, 2013), which may yield a different impact on depressive symptoms in men with CP. Thus, more research is needed in order to understand if and how these psychological processes impact differently depressive symptoms in different genders. Also, it should be noted that participants presented levels of depressive symptoms bellow the threshold for clinical depression, which prevents us from generalizing these results to clinically depressed CP patients. Future studies should conduct multi-group analyses to explore differences in the model between women with depressive symptoms versus clinically depressed women. Additionally, this study was conducted online through self-report measures. Future studies ought to replicate it and assess pain and depressive symptoms through clinical interviews. Furthermore, sampling through pain associations may have introduced a sampling bias towards women who are already relatively well adjusted to their chronic pain, which may not reflect typical presentations in secondary care settings. Finally, the sample size did not allow the testing of more complex models that would make it possible to examine other relevant processes, such as experiential avoidance and commitment to valued action. Indeed, one possible mechanism that might explain the nefarious role of cognitive fusion is that it leads to an increase in avoidant behaviours, thus decreasing actions that are valued and meaningful, leading to more symptoms of depression. Hence, more comprehensive models that integrate different relevant psychological processes are much needed for us to have a more complete picture of depression in CP. Finally, the current study did not collect qualitative information, which would provide us with much needed additional data on participants´ personal narratives on their pain experience, as well as the psychological processes and symptoms involved in their pain experience.

The current study provides additional data on the role of cognitive fusion that potentially yields clinical implications for psychotherapeutic management of CP. These results suggest that when dealing with depression in CP, psychological interventions should be more focused on tackling unhelpful entanglement with thoughts and emotions, rather than being overly focused on reducing pain symptoms. Nevertheless, more studies are needed to unequivocally establish the causal relationships between these variables. Future studies on the role of cognitive fusion in CP should consider task-oriented experimental designs comparing the effect of brief cognitive defusion exercises versus getting cognitively entangled on both mood and pain perception. Future studies should also consider the benefit of complementing standard self-report measures with ecological momentary assessment, which would allow us to collect information daily and with signal- or event-contingent reporting. Results from the current study corroborate the usefulness of integrating psychological approaches that promote acceptance and a shift in perspective in CP management. Specifically, acceptance- and mindfulness-based evidence-based interventions, such as Acceptance and Commitment Therapy (ACT; Hughes et al., 2017), seem to represent helpful approaches in reducing cognitive fusion through techniques that promote perspective-taking, such as mindfulness-based practices, as well as deliteralization techniques. By promoting cognitive defusion (a core process in psychological flexibility), the person with chronic pain learns how to distance oneself from their internal experiences (e.g. catastrophizing content, depressive rumination, and the physical sensation itself), which will give rise to the ability to notice these experiences as transient ones, with an accepting and non-reactive stance to them. This ability of just noticing internal experiences without automatic reaction can ultimately broaden their behaviour repertoire, which opens the possibility for a person with chronic pain to activate behaviours and engage in valued and meaningful experiences despite their pain, instead of being overly focused on the pain experience and the control of pain.

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Study IX - Self-compassion and depressive symptoms in chronic pain (CP): a 1-year longitudinal study

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Self-compassion and depressive symptoms in chronic pain (CP): a 1-year longitudinal study

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Abstract

Objectives: Self-compassion is associated with less depressive symptoms, better mental health outcomes, and less disability in Chronic Pain (CP). However, it remains longitudinally unexplored the role of self-compassion in CP. Also, although it is acknowledged the conceptual overlapping between mindfulness and self-compassion, few studies have explored the role of self-compassion in CP while controlling for mindfulness in a longitudinal design.

Methods: The current study conducts correlational and hierarchical linear regression analyses in a sample of 86 women with CP who completed an online battery of questionnaires that assess pain intensity, functional impairment, depressive symptoms, mindfulness and self-compassion in three time points: baseline (T0), 6-months (T1) and 12-months (T2).

Results: Results show that self-compassion (but not mindfulness) significantly predicts depressive symptoms at T1 and at T2 above and beyond depressive symptoms and functional impairment. Also, the interaction between functional impairment and and self-compassion at T0 significantly predicts depressive symptoms at T1, but not at T2.

Conclusions: These findings expand the current knowledge on the role of self-compassion in CP in showing that self-compassion is a significant predictor of later depressive symptoms in CP, and suggesting its potential role in buffering the impact of functional impairment in future levels of depressive symptoms.

Keywords: Chronic pain; Self-compassion; Mindfulness; Depression; Longitudinal design.

INTRODUCTION

Chronic pain (CP) is a debilitating medical condition characterized by constant or sporadic pain for at least three months (Merksey and Bogduk 1994), and is associated with functional impairment (e.g. Breiviket al. 2013) and depressive symptoms (Elliot et al. 2003; Jobski et al. 2017; Ohayon and Schatzberg 2010). The causal relationship between pain and depressive symptoms is an ongoing interest of pain research (e.g. Lerman et al. 2015; Wörz 2003), and it seems that both present reciprocal relationships (e.g. Kroenke et al. 2011) influenced by psychological processes (see Gatchel et al. 2007 for a review). Indeed, the role of psychological phenomena in CP aetiology is widely recognized, including in the Fear-Avoidance Model (FAM), which postulates that CP disability results from a cascade of events produced by the perceiving of pain as threatening (Vlaeyen et al. 2016). For the past 30 years, the majority of research on psychological factors in CP has focused on beliefs and on the content of thoughts (e.g. Crombez et al. 2012). Nevertheless, there has been new research increasing our understanding by focusing on the psychological processes underlying different thoughts and beliefs. For example, recent evidence has expanded the FAM by including the role of attention regulation processes such as mindfulness in CP aetiology (Schütze et al. 2010).

Mindfulness has been defined as the ability to pay attention to the present moment in a purposefully and non-judgmentally manner (Kabat-Zin 2002). Although comprising different components (see Coffey et al. 2010 for a topical discussion), the ability to intentionally self-regulate attention is the building block of mindfulness (Bishop et al. 2004), and it seems to predict less depressive symptoms in chronic illness (see Bohlmeijera et al. 2010 for a review), as well as in CP (e.g. McCracken et al. 2007; McCracken and Gutiérrez-Martínez 2011). There is considerable amount of research showing the benefits of mindfulness in CP (see Hilton et al. 2017 for a meta-analytic review). Indeed, the ability to self-regulate attention seems to counteract the automatic and unaware nature of detrimental psychological phenomena involved in psychopathological symptoms in CP (McCracken and Vowels 2014).

Recently, there is a growing interest in exploring the role of self-compassion in CP. Self-compassion is described as the ability to be touched by and open to experience one´s suffering (Dalai Lama 2001) with kindness (Neff 2003). In addition, self-compassion encompasses a motivation to alleviate personal suffering (Gilbert 2005) and the courage to engage with difficult emotions and overall internal experiences (Gilbert 2014). Research has found that self-compassion is negatively associated with psychopathological symptoms (see MacBeth and Gumley 2012), and it seems to be a relevant process in CP (Vowles et al. 2014). Indeed, research on CP have found that self-compassion is associated with less emotional distress and depressive symptoms (Costa and Pinto-Gouveia 2013), with less negative affect and pain disability (Wren et al. 2012), and was found to moderate the relationship between cognitive fusion and depressive symptoms (Carvalho et al. 2018b). However, the majority of research on self-compassion presents the limitations of cross-sectional designs. Few longitudinal studies have been conducted, but those that did conduct longitudinal studies suggest that it predicts more life satisfaction, less negative affect (Hope et al. 2014), and less disordered eating (Stutts and Blomquist 2018) in college students, and less depressive symptoms in depressed outpatients (Krieger et al. 2016). However, one study found that self-compassion did not longitudinally predict depressive symptoms in a 1-year assessment in a sample from general population (López et al. 2018). It should be noted that in the López et al (2018) study, the correlation between self-compassion and depression depended on how the authors used the self-compassion scale: a total score of the self-compassion scale was strongly correlated with depression at time 1 and time 2, while the positive "self-compassion" items alone (i.e., without the negative "self-criticism" items) presented a weak association with depressive symptoms – which, as the authors mention, may suggest that the strong correlation is mainly accounted by the negative items in the self-compassion scale. These different results and its nuanced interpretation suggests that more research is needed on the longitudinal relationship between self-compassion and depression. Additionally, to our knowledge, self-compassion has not yet been longitudinally explored in CP. Also, only one study has controlled for other related constructs (e.g., mindfulness) when exploring longitudinally the role of self-compassion in mental health (Zeller et al. 2014). Additionally, the role of self-compassion in CP has just recently been explored in a clinical context, with one uncontrolled-study in a small sample (N = 8) suggesting its effect on decreasing depressive symptoms (Parry and Malpus 2017), and one uncontrolled-study in a small sample (N = 12) showing a decrease in pain severity, anger and increase in pain acceptance (Chapin et al. 2014). Although these are promising and seem to point out the usefulness of self-compassion in CP, more research is needed on both its clinical efficacy, as well as the mechanisms through which it produces positive outcomes. In fact, more research is needed on the operationalization of closely-related psychological processes (e.g. mindfulness and self-compassion) in order to establish the specific contributions of each in CP.

The relationship between mindfulness and self-compassion is complex in both conceptual and empirical levels, and they seem to share overlapping dimensions, which urges for a better understanding of their differential role in mental health. Indeed, both mindfulness and self-compassion include practices that aim to cultivate awareness and acceptance abilities (see Neff and Dahm 2015 for a topical discussion), but self-compassion seems to involve an additional affective component (i.e. a caring and kind way of self-to-self relating) (Birnie et al. 2010) and an orientation to action (Pauley and McPherson 2010) that makes it a better predictor (than mindfulness) of quality of life and depression severity (Van Dam et al. 2011). Indeed, this action-orientation seems to mediate the relationship between self-compassion (but not mindfulness) and depressive symptoms in women with CP (Carvalho et al. 2018a). Nevertheless, although it is conceptually proposed that mindfulness is an inherent quality of self-compassion (Neff 2003), and it has been emphasized the importance of intentionally cultivating an attitude of kindness and open heartedness in mindfulness (Kangas and Shapiro 2012; Kuyken et al. 2010), the specific predictive effect of each process (i.e. mindfulness and self-compassion) in CP has never been explored in a longitudinal design.

The current study aims to explore longitudinally the role of self-compassion as a predictor of depressive symptoms in a sample of women with CP. Specifically, this study aims to test the hypothesis that self-compassion at baseline (T0) is a significant predictor of depressive symptoms at 6-months (T1) and 12-months (T2), above and beyond pain intensity, functional impairment, depressive symptoms and mindfulness at baseline (T0). Also, the current study aims to test the hypothesis that self-compassion at baseline (T0) moderates the effect of functional impairment at baseline (T0) on depressive symptoms at 6-months (T1) and 12-months (T2). In order to assure that we are indeed measuring self-compassion, rather than the absence of uncompassionate or self-critical responding (e.g. Lopez et al. 2015; Muris et al. 2016), the current study will solely focus on the positive items of the self-compassion scale as a measure of self-compassionate attitude.

METHOD

Participants A power analysis was not conducted previously to determine sample size needed. However, a post-hoc analysis was calculated using G*Power in order to test the power of the hierarchical regression analyses.

The sample is composed of 86 women with musculoskeletal CP who completed an online battery of socio-demographic, medical and self-report questionnaires at three time-points: baseline (T0), 6-months (T1) and 12-months (T2). Inclusion criteria: a) having constant or sporadic pain, unrelated to oncological disease, for three months or more; b) age above 18 years; c) having access to an online device in order to complete the battery of questionnaires. The sample had a mean age of 50.73 (*SD* = 10.84). In terms of marital status, 51 were married (59.3%), 20 were divorced (23.3%), 13 were single (15.1%) and 2 were widowed (2.3%). The majority had a high-school (*N* = 26; 30.2%) or bachelors´ degree (*N* = 37; 43%), and were currently employed (*N* = 63; 73.3%). Of those who were not (*N* = 23; 26.7%), 1 was on work leave due to CP (1.2%). All participants reported having their CP diagnoses provided by one or more medical doctors, such as the rheumatologist (*N* = 68; 79.1%), general practitioner (N = 14; 16.3%), psychiatrist (*N* = 7; 8.1%), and/or by other medical specialties (*N* = 70; 81.4%). The majority of CP diagnoses included fibromyalgia (*N* = 74; 86%), low-back pain (*N* = 11; 12.8%), arthrosis (N = 10; 11.6%) and/or rheumatoid arthritis (*N* = 9; 10.5%). Participants had CP for more than 10 years (*N* = 51; 59.3%), from 5 to 10 years (*N* = 23; 26.7%) and from 1 to 5 years (*N* = 12; 14%), and 49 had other chronic illnesses (57%).

Procedure

The current study was approved by the Scientific and Ethics Committee of the University where the first author is affiliated. Five national CP associations were contacted and three accepted to collaborate by advertising the study and its online link through their mailing list. The study was accessed by 479 participants, of which 246 completed the battery of questionnaires (nonresponse attrition rate: 48.64%). In order to have a homogeneous sample in terms of gender and nationality, nine men and six non-Portuguese women were excluded from the study. Participants provided an email for the research team to send the link for the 6-months and 12-months online questionnaires. The sample size at baseline (T0) was N = 231. At the 6-months assessment (T1), N = 113 completed the questionnaires (dropout attrition rate: 51.08%). At 12-months assessment (T2), N = 89 participants completed the final assessment (dropout attrition rate: 61,47%). At the end of data collection, N = 86 participants responded to the battery of questionnaires in all three assessment points (dropout attrition rate: 62.77%). The current study was conducted with the final N = 86 who completed all three assessments. All participants provided informed consent and were assured of the confidentiality of data.

Measures

The following instruments were completed at baseline (T0), 6-months (T1) and 12-months (T2) assessment.

Numerical Pain Rating Scale (NPRS; Ferreira-Valente et al. 2011; Hartrick et al. 2003). The NRS is a widely used 11-item unidimensional measure of pain intensity in adults. The scale comprises numbers from 0 (“No pain”) to 10 (“Worst imaginable pain”). A single score of “average pain intensity in the last 24h” was created from ratings of: 1) current pain; 2) highest pain in last 24h; 3) lowest pain in last 24h. Higher scores indicate greater pain intensity. Our study found good internal consistency: $\alpha_{T0} = 0.86$, $\alpha_{T1} = 0.87$, $\alpha_{T2} = 0.87$.

Work and Social Adjustment Scale (WSAS; Mundt et al. 2002). This is a 5-item measure that assesses five domains: work, home management, social leisure activities, private leisure activities, and family and other relationships. Each item is rated from 0 (no impairment) to 8 (very severe impairment). Higher scores on this scale indicate higher levels of functional impairment. The current study found values that indicate good internal consistency: $\alpha_{T0} = 0.88$, $\alpha_{T1} = 0.94$, $\alpha_{T2} = 0.92$.

Mindful Attention Awareness Scale (MAAS; Brown and Ryan 2003; Gregório and Pinto-Gouveia 2013). The MAAS is a 15-item measure of characteristics of dispositional mindfulness, i.e., abilities to present an open awareness of and attention to the present moment. The respondent is asked to rate the frequency of those experiences using a 6-point Likert-like scale (1 = Almost always; 6 = Almost never). The current study found good Cronbach's alpha values: $\alpha_{T0} = 0.91$, $\alpha_{T1} = 0.92$, $\alpha_{T2} = 0.93$.

Self-Compassion Scale – Short Form (SCS-SF; Castilho et al. 2015; Raes et al. 2011). This is a shorter 12-items version of the original 26-item Self-Compassion Scale (Neff 2003) that assesses self-compassion in a 5-point Likert scale (1 = “Almost Never”; 5 = “Almost Always”). The factor structure of the SCS has been an ongoing topic of discussion, with studies suggesting a six-factor or one-factor structure (Neff 2003), while others suggest the possibility of using SCS as a two-factor structure (Muris and Petrocchi 2017): a *self-compassionate* attitude (SCS-Pos: a composite of self-kindness, common humanity and mindfulness) and a *self-critical* attitude (SCS-Neg: that results from the sum of self-judgment, isolation and over-identification). The current study follows the two-factor structure and will focus on the self-compassionate subscale, which presented good internal consistency: $\alpha_{T0} = 0.85$, $\alpha_{T1} = 0.87$, $\alpha_{T2} = 0.84$. It is noteworthy that the two-factor structure of the short version of SCS has not been extensively studied. However, to our knowledge, two studies did so, and found the two-factor structure to present the best fit (Bratt and Fagerström 2019; Hayes et al. 2016).

Depression Anxiety Stress Scales (DASS-21; Lovibond and Lovibond 1995; Pais-Ribeiro et al. 2004). DASS-21 is a 21-item measure of depression, anxiety, and stress symptoms over the respondent's previous week. Items are rated on a 4-point scale (0 = "Did not apply to me at all"; 3 = "Applied to me very much, or most of the time"). Higher scores indicate higher psychological distress. Only the depression subscale was used in the present study. The current study found good internal consistency: $\alpha_{T0} = 0.94$, $\alpha_{T1} = 0.92$, $\alpha_{T2} = 0.92$

Data analysis

The Statistical Package for the Social Sciences (SPSS IBM Corp. v.21 2012) was used to conduct all statistical analyses. There were no missing data given that the online survey could only be submitted if totally completed. Pearson correlation coefficients were analysed to explore the associations between variables (Cohen 1988).

One hierarchical linear regressions were conducted in order to test the effect of the interaction between self-compassion and functional impairment at baseline (T0) on depressive symptoms at 6 months (T1) and 12 months (T2) (dependent variables), while controlling for pain intensity, mindful awareness and depressive symptoms at T0 (Frazier et al. 2004). In the first step of each analysis, depression symptomatology at T0 was added in the model (to control for its effects), then pain intensity and functional impairment at T0 were added in Step 2. At Step 3, mindful awareness and self-compassion at T0 were added in Step 3. Finally, at Step 4 the interaction of functional impairment and self-compassion was added to the model.

RESULTS

Preliminary Analysis and Correlations

Skewness values varied between -0.10 (WSAS at T0) and 0.75 (DASS-DEP at T2), and the values of kurtosis ranged from -0.97 (WSAS at T2) and -0.28 (NPRS at T0). The data distribution can thus be considered normal (Kline 2000). Variance Inflation Factor (VIF) values confirmed the absence of multicollinearity for all independent variables (VIF values ranged from 1.00 to 1.83) (Kline 2000).

Results from the correlation analysis (Table 1) showed that pain intensity at all assessment points was positively linked to functional impairment in all assessment points. Pain intensity at T0 and T1 was not associated with mindful awareness, self-compassion, or depression symptoms at all assessment points. Pain intensity at T2 was also not correlated with these variables with the exception of mindfulness awareness at T0, which presented a negative and significant correlation with pain intensity at T2, and depression symptoms at T1which had a positive and significant association with pain intensity at T2. Functional impairment at T0 was associated with all variables in study. Functional impairment at T1 and T2 was also correlated with all variables except with mindful awareness at T0. There were moderate to high correlations between mindful awareness, self-compassion, and depression symptomatology at all assessment points. Mindful awareness and self-compassion were positively associated with each other, and negatively associated with depression symptoms.

Table 1

Means, standard deviations, and intercorrelation scores (*N* = 86)

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. NPRS T0	5.28	1.81	-													
2. WSAS T0	24.95	8.32	0.38***	-												
3. MAAS T0	53.31	14.19	-0.05	-0.30**	-											
4. SCS T0	19.83	4.86	-0.03	0.27*	0.35**	-										
5. DASS-DEP T0	6.13	5.46	0.10	0.49***	-0.46***	-0.52***	-									
6. NPRS T1	5.14	1.91	0.61***	0.29**	-0.09	0.00	0.05	-								
7. WSAS T1	23.30	9.59	0.36**	0.75***	-0.21	-0.21*	0.40***	0.39***	-							
8. MAAS T1	53.08	14.87	0.00	0.36**	0.73***	0.39***	-0.44***	-0.08	-0.35**	-						
9. SCS T1	19.45	4.71	-0.08	-0.27*	0.37***	0.77***	-0.51***	-0.02	-0.32**	0.52***	-					
10. DASS-DEP T1	5.55	5.11	0.19	0.56***	0.36**	-0.54***	0.70***	0.16	0.55***	-0.47***	-0.54***	-				
11. NPRS T2	5.07	1.96	0.62***	0.42***	-0.26*	-0.12	0.21	0.70***	0.38***	-0.20	-0.09	0.22*	-			
12. WSAS T2	22.12	9.76	0.34**	0.75***	-0.21	-0.27*	0.42***	0.35**	0.78***	-0.34**	-0.25*	0.53***	0.47***	-		
13. MAAS T2	52.79	15.20	0.05	-0.41***	0.68***	0.45***	-0.47***	0.00	-0.36**	0.81***	0.50***	-0.50***	-0.19	-0.42***	-	
14. SCS T2	19.37	5.01	-0.07	-0.24*	0.36**	0.72***	-0.46***	-0.08	-0.22*	0.53***	0.75***	-0.45***	-0.21	-0.32**	0.51***	-
15. DASS-DEP T2	5.34	5.03	-0.12	0.49***	-0.32**	0.49***	0.68***	0.07	0.47***	-0.53***	-0.51***	0.74***	0.19	0.55***	-0.56***	-0.57***

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

T0 = baseline assessment; T1 = 6-month assessment; T2 = 12-month assessment.

Predicting depression symptomatology at T1 (6 months)

In the first step of the regression model (Table 2), depression symptomatology measured at T0 was entered as a predictor of depression symptomatology measured at T1, which produced a significant model ($F_{(1,\ 84)} = 78.46$, $p < 0.001$) that explained 48% of the variance of the depression symptoms at T1. Depression symptoms at T0 significantly predicted depression symptoms at T1 with a significant effect of 0.70 ($p < 0.001$).

In the second step, pain intensity at T0 and functional impairment at T0 were further included as predictors of the model, which remained significant ($F_{(3,\ 82)} = 32.73$, $p < .001$) explaining 55% of the variance of depression symptoms at T1. Depression symptoms at T0 showed a significant effect of 0.56 ($p < 0.001$) on depression symptomatology at T1. Pain intensity at T0 was not a significant predictor of the model ($p = 0.724$). Functional impairment at T0 in turn significantly predicted depression symptoms at T1 with an effect of 0.27 ($p = 0.004$).

In the third step, mindful awareness at T0 and self-compassion at T0 were added to the model as predictors. The model remained significant ($F_{(5,\ 80)} = 22.67$, $p < .001$) and explained 59% of depression symptomatology at T1. Pain intensity ($p = 0.643$) and mindful awareness ($p = 0.967$) were not significant predictors of depression symptomatology at T1. The only significant predictors of this outcome were depression symptomatology at T0 ($\beta = 0.44$; $p < 0.001$), functional impairment at T0 ($\beta = 0.26$; $p = 0.005$), and self-compassion at T0 ($\beta = -0.24$; $p = 0.006$).

Predicting depression symptomatology at T2 (12 months)

A similar analysis (Table 2) was conducted with depression symptomatology measured T2 (12 months later). In the first step of the regression model, a significant model was also produced ($F_{(1,\ 84)} = 72.22$, $p < 0.001$); this model accounted for 47% of the variance of the outcome. Depression symptoms at T0 significantly predicted depression symptoms at T2 with a significant effect of 0.68 ($p < 0.001$).

In the second step of the analysis the model remained significant ($F_{(3, 82)} = 26.99$, $p < .001$) explaining 50% of the variance of depression symptoms at T2. In this step, depression symptoms at T0 presented a significant effect of 0.58 ($p < 0.001$) on the outcome. Pain intensity at T0 was not a significant predictor ($p = 0.879$), while functional impairment at T0 was with an effect of 0.21 ($p = 0.036$).

In the third step, the model remained significant ($F_{(5, 80)} = 17.54$, $p < .001$) and explained 52% of depression symptoms at T2. Pain intensity ($p = 0.921$) and mindful awareness ($p = 0.619$) were not significant predictors of depression symptomatology at T2. The only significant predictors of the model were found to be depression symptoms at T0 ($\beta = 0.50$; $p < 0.001$), functional impairment at T0 ($\beta = 0.21$; $p = 0.037$), and self-compassion at T0 ($\beta = -0.19$; $p = 0.040$).

Table 2 - Hierarchical multiple regression of the moderator effect of self-compassion on the relationship between functional impairment and depressive symptoms at T1 and T2, while controlling for depressive symptoms, pain intensity and mindfulness at T0 (*N* = 86)

	DASS-DEP at T1 (6 months)					DASS-DEP at T2 (12 months)				
	t	β$^{(\text{p-value})}$	$R^{2\ (\text{R change})}$	sr^2	$F^{(\text{p-value})}$	*t*	β$^{(\text{p-value})}$	$R^{2(\text{R change})}$	sr^2	$F^{(\text{p-value})}$
Step 1			0.48		$78.46^{(< .001)}$			0.47		$73.22^{(< .001)}$
DASS-DEP T0	8.86	$0.70^{(< .001)}$		0.48		8.56	$0.68^{(< .001)}$		0.47	
Step 2			$0.55^{(.062)}$		$32.73^{(< .001)}$			$0.50^{(.031)}$		$26.99^{(< .001)}$
DASS-DEP T0	6.47	$0.56^{(< .001)}$		0.23		6.41	$0.58^{(< .001)}$		0.25	
NPRS T0	0.36	$0.03^{(\text{n.s.})}$		0.00		-0.15	$-0.01^{(\text{n.s.})}$		0.00	
WSAS T0	2.92	$0.27^{(.004)}$		0.05		2.13	$0.21^{(0.04)}$		0.03	
Step 3			$0.59^{(.041)}$		$22.67^{(< .001)}$			$0.52^{(.026)}$		$17.54^{(< .001)}$
DASS-DEP T0	4.52	$0.44^{(< .001)}$		0.11		4.82	$0.50^{(< .001)}$		0.14	
NPRS T0	0.47	$0.04^{(\text{n.s.})}$		0.00		-0.10	$-0.01^{(\text{n.s.})}$		0.00	
WSAS T0	2.92	$0.26^{(.005)}$		0.04		2.12	$0.21^{(0.04)}$		0.03	
MAAS T0	0.04	$0.00^{(\text{n.s.})}$		0.00		0.50	$0.04^{(\text{n.s.})}$		0.00	
SCS T0	-2.80	$-0.24^{(.006)}$		0.04		-2.08	$-0.19^{(0.04)}$		0.03	
Step 4			$0.61^{(.024)}$		$20.60^{(< .001)}$			$0.53^{(.003)}$		$14.61^{(< .001)}$
DASS-DEP T0	4.62	$0.50^{(< .001)}$		0.21		4.80	$0.50^{(< .001)}$		0.23	
NPRS T0	0.52	$0.04^{(\text{n.s.})}$		0.34		-0.09	$-0.01^{(\text{n.s.})}$		0.00	
WSAS T0	2.97	$0.90^{(.004)}$		0.10		1.30	$0.44^{(\text{n.s.})}$		0.02	
MAAS T0	0.30	$0.02^{(\text{n.s.})}$		0.00		0.58	$0.05^{(\text{n.s.})}$		0.00	
SCS T0	1,02	$0.24^{(\text{n.s.})}$		0.01		-0.08	$-0.02^{(\text{n.s.})}$		0.00	
WSAS x SCS T0	-2.20	$-0.70^{(.031)}$		0.06		-0.72	$-0.25^{(\text{n.s.})}$		0.01	

n.s. = non significant; DASS-DEP = Depressive symptoms; NPRS = Pain intensity; WSAS = Functional impairment; MAAS = Mindful awareness; SCS = Self-compassion. T0 = baseline assessment; T1 = 6-month assessment; T2 = 12-month assessment.

The moderator effect of self-compassion

In Step 4, the moderation hypothesis was tested. Results from regression analyses testing the effect of the interaction between self-compassion and functional impairment on depressive symptoms showed that self-compassion (T0) moderates the association between functional impairment (T0) and depressive symptoms at 6 months (T1), while controlling for pain intensity, mindful awareness and depressive symptoms at T0 (β = -0.70; *p* = 0.031), and the model is a significant one (*F* = 20.60, *p* < .001) and explains 61% of depressive symptoms (see Table 2). The post-hoc G*Power analysis showed a power of 99.9% for the tested interaction, assuming an $f^2 = 0.59$ ($R^2 = 0.61$), an $\alpha = 0.05$ and a sample size of N = 86.

See Figure 1 for a visual representation of the moderator effect of self-compassion on the association between functional impairment (T0) and depressive symptoms at 6-months (T1).

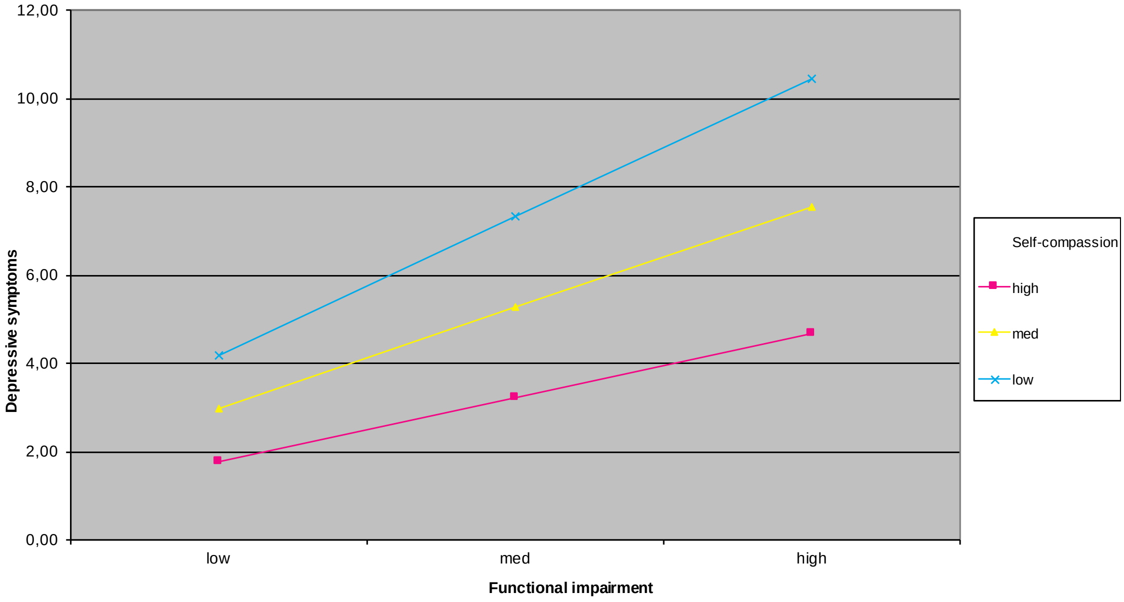

Figure 1

The moderator effect of self-compassion (T0) on the relationship between functional impairment (T0) and depressive symptoms at 6-months (T1).

Figure 1 seems to indicate that for the same levels of functional impairment at T0, those who presented higher levels of self-compassion at T0 also presented lower levels of depressive symptoms 6 months later. A conditional effect analysis was conducted to examine the significance of slopes. Results show that the relationship between functional impairment and depressive symptoms is still significant regardless self-compassion being low (t = 6.09, $p < 0.001$), medium (t = 5.72, $p < 0.001$) and high (t = 3.00, p = 0.004).

Regarding depressive symptoms at 12-months (T2), the final model is significant (F = 14.61, $p < .001$), but the effect of the interaction was not (β = -0.25; p = 0.476).

DISCUSSION

The current study explored, in a longitudinal design, the relationship between self-compassion and depressive symptoms in a sample of women with CP, while controlling for baseline levels of depressive symptoms, pain intensity, functional impairment and mindful awareness. Correlational analyses echoed the existing literature suggesting the association between pain and functional impairment (e.g. Breivik et al. 2013) by showing the significant association between these variables in all assessment points. Interestingly, pain intensity at baseline was not significantly associated with depressive symptoms in any assessment point. This seems to corroborate the complexity of the etiology of depression in CP, in which more than the intensity of pain itself, mental health in CP is more strongly predicted by psychological mechanisms underlying the adjustment to pain cues (Gatchel et al. 2007; Vlaeyen et al. 2016). More interestingly, results seem to suggest that, in our sample, and contrarily to the proposition that depression in CP results from pain (e.g. Wörz 2003), depressive symptoms at T1 were positively associated to pain intensity 6 months later (T2), which seems to echo other longitudinal studies (e.g. Lerman et al. 2015). Nevertheless, more research is needed in order for us to draw unequivocal causal conclusions regarding the maintenance of depressive symptoms in CP. Future studies should explore the comorbidity and/or causal relations between depression and pain by designing studies able to explore the role of chronic inflammation as a potential mechanism of this association (Walker et al. 2014). Additionally, mindful awareness at baseline (T0) was not significantly associated to neither pain intensity nor functional impairment at 6-months (T1) and 12-months (T2), which seems to suggests that the mere attentional component of mindfulness does not play a crucial role in later pain intensity and adjustment. Also, mindful awareness and self-compassion were positively associated at all time points, and both negatively correlated with depressive symptoms, which is in line with previous research suggesting the close relationship between both psychological processes (Neff and Dahm 2015), and with depression (e.g. McCracken and Gutiérrez-Martínez 2011).

Results from hierarchical regression analyses showed that self-compassion at baseline predicted depressive symptoms 6-months (T1) and 12-months (T2) later, while mindful awareness did not, and this significant effect was above and beyond depressive symptoms and functional impairment at baseline. This seems to corroborate other cross-sectional studies suggesting that self-compassion is a better predictor of mental health than mindful awareness (e.g. Carvalho et al. 2018a; Van Dam et al. 2011). To our knowledge, this is the first study to explore longitudinally the role of self-compassion in CP, and only one other study controlled the effect of mindfulness while exploring longitudinally the role of self-compassion in mental health (Zeller et al. 2014). These results seem to corroborate the theoretical proposition that self-compassion has the potential to be particularly beneficial in CP. Indeed, the theoretical rationale for considering self-compassion a relevant predictor of positive outcomes in CP stems from experimental evidence suggesting that self-compassion is associated to higher levels of natural opioids (e.g. oxytocin) (Rockliff et al. 2011) and parasympathetic vagal toning measured through heart rate variability (e.g. Kirby et al. 2017), which produces positive affect (e.g. calmness, safeness) associated to opiate functioning (Depue and Morrone-Strupinsky 2005). Also, a possible interpretation for the result that self-compassion, but not mindfulness, significantly predicted later levels of depressive symptoms is that self-compassion has an action-orientation (Pauley and McPherson 2010). Indeed, it seems that both behavioral activation approaches and self-compassion training share neural pathways involved in reward systems of positive emotions (e.g. Gawrysiak et al. 2012; Longe et al. 2010; Lutz et al. 2008), while, on the other hand, mindfulness seems to operate in neural pathways involved in executive functioning (e.g. Tang et al. 2015). It may also be the case that self-kindness, which is measures by SCS but not by MAAS, might have been contributing to these results. Future studies should test this hypothesis by using the longer version of SCS in order to examine the role of self-kindness. It should be noted that, although a significant predictor, self-compassion accounted for a relatively small variance in depressive symptoms. Nevertheless, these results should be interpreted having in mind that the current study not only controlled for depressive symptoms at baseline, but also controlled for well-known predictors of depressive symptoms in CP (e.g. pain-related functional impairment). Also, the current study measured self-compassion exclusively with the positive dimension of the scale, which assures us that we are indeed assessing the presence of self-compassion, and results are not due to statistical artifacts such as high correlations between the negative dimension of the scale and depressive symptoms.

Finally, results seem to suggest that self-compassion moderated the effect of functional impairment (T0) on depressive symptoms 6 months later (T1). This seems to be in line with previous studies that suggest that self-compassion is a significant predictor of less depressive symptomatology (e.g. Costa and Pinto-Gouveia 2013) and less pain disability (e.g. Wren et al. 2012), as well as it seems to corroborate the proposition that self-compassion might play a useful role in clinical approaches to CP management (Chapin et al. 2014; Parry and Malpus 2017). These results seem to indicate that having the ability to be kind and warm towards oneself when facing difficulties related to pain leads to less depressive symptoms. A possible explanation is that self-compassion seems to stem from an affiliative system that regulates threat (e.g. Gilbert 2005) and interrupts the cascade of fear-avoidance responses (Vlaeyen et al. 2016) by producing physiological (e.g. Kirby et al. 2017) and positive affect (e.g. López et al. 2018) that result in less depressive symptoms. However, it should be noted that the significance of slopes show that functional impairment still significantly predicts depressive symptoms 6 months later, regardless of low, medium or high levels of self-compassion. Nevertheless, these results seem to indicate a trend: although still significant, the relationship between functional impairment (T0) and depressive symptoms (T1) seem to be weaker when self-compassion is high. This seems to point towards the potential buffering effect of higher levels of self-compassion in the relationship between functional impairment and depressive symptoms 6 months later. Finally, the interaction term was not significant for depressive symptoms at 12-months (T2), which may be due to the fact that other variables (both intra and interpersonal) might be playing a role in this interaction. Indeed, 12 months may be too long a period for exploring processes that can be contextually influenced such as self-compassion. It may be the case that other processes, such as commitment to engage in valued actions, may help understand the relationship between self-compassion, functional impairment and depressive symptoms in such a long period. Although self-compassion encompasses the motivation to action (e.g. Pauley and McPherson 2010), one should explore how temporally stable these actions are in order to better understand the effect of the interaction between self-compassion and functional impairment on depressive symptoms 12 months later. Also, one should consider that the current longitudinal study was not conducted in the context of a clinical study, thus not involving the cultivation of self-compassion through daily practices, i.e. the long-term impact of self-compassion was not observable. More research is needed in order to better understand the long-term relationship between self-compassion, functional impairment and depressive symptoms.

Limitations and Future Research

The current findings should be interpreted with caution and considering the limitations of the study. Firstly, the high attrition rate should be considered when interpreting these results. Some studies point out a 50% attrition rate in web-based health interventions, and suggest that randomized control clinical trials (RCTs), as well as the interaction with a therapist throughout the study, increase adherence (Kelders et al. 2012). This might explain the high attrition rate (62.77%) in our study, which lacked contact with a therapist. Also, the attrition rate might be explained by the inability to contact participants. The link of the online questionnaires was sent to the email contact previously provided by the participants, which could have been discontinued or changed. In addition, participants were not compensated in any way for participating in the study, which might contribute to lack of adherence from T0 to T2. Future studies should include a call from a counselor between assessment points, compensation, and guarantee other sources of contact other than email, in order to diminish attrition rates and attain a larger sample size that would allow for more robust statistical analyses (e.g. Cross-Lagged Panel analyses using Structural Equation Modeling). Indeed, results from the moderation analyses should be interpreted with caution, given the small effect of the interaction (which was, nonetheless, significant), as well as the significance of the slopes. These results seem to indicate that functional impairment is still a significant predictor of depressive symptoms

6 months later when self-compassion is present, although results seem to suggest that higher levels of self-compassion might attenuate this relationship. Nevertheless, this study should be replicated in a larger sample before it can be established a definitive conclusion on the role of self-compassion in the relationship between functional impairment and depressive symptoms.

In addition, the sample is all female, thus drawing generalizable conclusions to other genders is unwarranted. Another limitation is the fact that the current sample was composed of mostly educated participants, which prevents us from generalizing these results to CP patients. In addition, it should be noted that although the mean scores for functional impairment suggest a moderately severe impairment of our sample, only 1 participant was absent from work due to CP. Future studies should consider including a clinical interview to assess functional impairment, in order to have access to more nuanced information that a questionnaire is not able to provide. Also, this was an online self-reported study, thus it should be replicated in a sample where CP diagnoses were established through a clinical interview. Additionally, these results should not be extrapolated to mindfulness as a whole, since the current study measured a very specific component of mindfulness (i.e. mindful awareness). Future studies should consider using other measures of mindfulness that assess the construct in its different qualities. Specifically, when conducting studies focusing on self-compassion, future studies should consider using a measure of non-judgment (e.g. FFMQ; Baer et al. 2006), and one that measures acceptance (e.g. PMS; Cardaciotto et al. 2008), as these two qualities (non-judgment and acceptance) overlap with some dimensions of self-compassion. Future studies should continue exploring in depth the differences and similarities between mindfulness and self-compassion, and their impact on mental health outcomes. Also, it is worth noting that the current study used the short version of the SCS, which does not allow for more in depth analyses of different self-compassion domains. Specifically, future studies should use the longer version of SCS to clarify which self-compassion components better predict psychopathological symptoms, and compare a measure of mindfulness with the mindfulness subscale of the SCS.

Author Contributions SC designed, executed, analyzed data and wrote the manuscript. IT analyzed data and wrote the manuscript. DG and JPG designed and consulted the execution of the paper. PC designed, wrote and consulted the execution of the paper. All authors participated in paper revision and approved the final version.

Compliance with Ethical Standards

Ethical Approval All procedures followed the ethical standards of the institutions and national research committees (Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra), as well as the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent All participants provided informed consent.

Conflict of Interest The authors state no conflict of interest.

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Chapter 6: Development and pilot test of the COMP.ACT program

Study X - Acceptability and preliminary analysis of a Compassionate Acceptance and Commitment Therapy for chronic pain (COMP.ACT): a mixed method examination.

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Acceptability and preliminary analysis of a Compassionate Acceptance and Commitment Therapy for chronic pain (COMP.ACT): a mixed method examination.

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Abstract

Evidence shows that Acceptance and Commitment Therapy (ACT) is effective for chronic pain (CP) management. Although self-compassion is not explicitly a target of ACT, it seems to be one mechanism of change in ACT for CP. The current study developed a Compassionate ACT 8-session group program for CP (COMP.ACT;*n*=9) and compared its acceptability and preliminary efficacy with an ACT-only 8-session group program (ACT;*n*=7). A mixed-method approach was followed. Participants were allocated according to schedule preference. No differences were found between conditions at baseline in terms of socio-demographic, medical and variables in study. Content analysis showed participants in COMP.ACT referred to self-compassion as 'learning' and 'changing' themes more frequently than those in ACT, and psychological flexibility was a salient theme in both. Pain regulation was more frequent in the discourse of participants in ACT, and psychological processes more frequent in those in COMP.ACT. Quantitative results did not show significant differences between the two conditions. Both conditions were evaluated as useful, and COMP.ACT seemed to result in greater clinical improvements (although not statistically significant) in mindfulness and valued living, while ACT seemed to result in greater improvements in pain intensity and disability, psychological inflexibility, compassionate and uncompassionate self-responding. Reliable and Significant Change analysis showed that some improved significantly (psychopathological symptoms, valued living and uncompassionate self-responding) in both conditions. Changes in psychological flexibility, compassionate and uncompassionate self-responding during the implementation are coherent with sessions′ themes and conditions. Limitations and clinical implications are further discussed.

Key-words: Chronic Pain; Acceptance and Commitment Therapy; Compassion; Acceptability; Pilot Study.

INTRODUCTION

Chronic pain (CP) is a debilitating medical condition characterized by constant or sporadic pain for at least 3-6 months (Merksey & Bogduk, 1994). Its etiology is complex and results from an interplay of pathophysiological mechanisms (e.g., Pergolizzi et al., 2013) and psychosocial processes (e.g., Edwards, Dworkin, Sullivan, Turk, & Wasan, 2016), which have led to the integration of psychological interventions in CP management (e.g., Scascighini, Toma, Dober-Spielmann, & Sprott, 2008).

Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is a contextual-behavioral approach rooted in the Psychological Flexibility Model (PFM). Rather than focusing on truth, the pragmatism of the PFM is about ‘workable’ behavior towards personal valued goals (Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2006). According to the PFM, human suffering results from behavior being overly regulated by language-related processes and from unwillingness to contact aversive internal experiences (e.g., unpleasant thoughts, emotions, sensations), which moves one farther from a meaningful life (see Hayes, Luoma, Bond, Masuda, & Lillis, 2006). This theoretical framework is a useful lens through which CP-related suffering can be operationalized (McCracken & Vowles, 2014). Indeed, results on the detrimental role of fear-based behavior (e.g., Crombez, Vlaeyen, Heuts, & Lysens, 1999; Gatchel, Neblett, Kishino, & Ray, 2016; Kroska, 2016) suggest that CP disability and suffering result not primarily from pain itself, but rather from the impact of psychological inflexibility processes such as cognitive fusion (e.g., Carvalho, Trindade, Gillanders, Pinto-Gouveia, & Castilho, 2019a), experiential avoidance (e.g., McCracken & Samuel, 2007), less valued living (e.g., McCracken & Vowles, 2008) and less committed action (e.g., Bailey, Vowles, Witkiewitz, Sowden, & Ashworth, 2016). ACT seems to be a fitting psychological approach to CP management due to its focus on promoting psychological flexibility, i.e., the ability to proceed with or change behavior in a way that is coherent with personal values, and doing so with awareness of and openness to ongoing internal experiences (Scott & McCracken, 2015). Indeed, there is strong evidence of the efficacy of ACT for CP (e.g., Feliu-Soler, Montesinos, Gutiérrez-Martínez, Scott, McCracken, & Luciano, 2018; Hughes, Clark, Colclough, Dale, & McMillan, 2017), and the American Psychological Association’s Division of Clinical Psychology established ACT as empirically supported for CP (APA, 2011).

Recently, self-compassion has been a target of research in CP (Purdie & Morley, 2016). Self-compassion is the sensitivity to personal suffering and the motivation to behave in a way that alleviates one′s suffering (Neff, 2003; Gilbert, 2005), with evidenced benefits for mental and physical health (e.g., Dunne, Sheffield, & Chilcot, 2018; Galante, Galante, Bekkers, & Gallacher, 2014). In CP, the relevance of self-compassion is both theoretically and empirically supported. Self-compassion is hypothesized to stem from an attachment-related affect regulation system rooted in mammalian evolutionary history (Gilbert 2005, 2014), in which neuropeptides with analgesic properties seem to be involved (e.g., oxytocin, vasopressin) (Goodin, Ness, & Robbins, 2015). Self-compassion is associated with pain regulation systems, such as vagally-mediated heart-rate variability (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008), and oxytocin-endorphin systems (Rockliff, Karl, McEwan, Gilbert, Matos, Gilbert, 2011). Also, research suggests that self-compassion protects against depressive symptoms in CP (e.g., Carvalho, Trindade, Gillanders, Pinto-Gouveia, & Castilho, 2020) and is associated with less negative affect and pain disability (Wren et al., 2012). Additionally, several compassion-based psychological approaches have been found useful for CP (e.g., Montero-Marin et al., 2020; Parry & Malpus, 2017).

Although self-compassion is not a key process of the PFM, nor is explicitly promoted in ACT, there is a growing interest in self-compassion within contextual-behavior science (e.g., Luoma & Platt, 2015; Tirch, Schoendorff, & Silberstein, 2014). Indeed, the bridge between ACT and compassion has been constructed for the last ten years, due to the complementarity between psychological flexibility processes and self-compassion (Neff & Tirch, 2013; Neff & Dahm, 2015). For example, research seems to suggest that ACT promotes self-compassion even when not explicitly including self-compassion exercises (Yadavaia, Hayes, & Vilardaga, 2014). In CP, self-compassion seems to be an integrated element underlying the PFM, with uncompassionate self-responding (i.e., self-judgment, isolation, over-identification) loading onto the ‘fusion/avoidance’ part of the model, and aspects of compassionate self-responding (i.e., mindfulness and common humanity) loading onto ‘present moment awareness’ (Vowles, Sowden, & Ashworth, 2014). Self-compassion is a cross-sectional buffer of the relationship between cognitive fusion and depressive symptoms (Carvalho, Pinto-Gouveia, Gillanders, & Castilho, 2019b), is associated with pain acceptance (Costa & Pinto-Gouveia, 2011), particularly the behavioral component of pain acceptance (Carvalho, Gillanders, Palmeira, Pinto-Gouveia, & Castilho, 2018), with success in valued living (Edwards, Pielech, Hickman, Ashworth, Sowden, & Vowles, 2019), and is one mechanism of therapeutic change underlying ACT for CP (Vowles, Witkiewitz, Sowden, & Ashworth, 2014). Nevertheless, it is unclear whether adding explicit self-compassion exercises would be beneficial in ACT for CP. Additionally, although interventions that incorporate elements of ACT and compassion seem to be effective in promoting mental health in different clinical conditions (e.g., Hill, Schaefer, Spencer, & Masuda, 2020; Palmeira, Pinto-Gouveia, & Cunha, 2017; Pinto-Gouveia et al., 2017; Skinta, Lezama, Wells, & Dilley, 2015; Trindade, Ferreira, & Pinto-Gouveia, 2020), the added value of including explicit compassionate exercises in an ACT protocol has yet to be established.

The current study aims to explore the acceptability of an 8-session group ACT intervention that incorporates explicit self-compassion exercises (COMP.ACT) and to test its preliminary efficacy in a sample of women with CP by comparing it to an ACT-only intervention (ACT).

METHOD

The COMP.ACT program

The development of the COMP.ACT program (Table 1) was based on the Psychological Flexibility Model (PFM) applied to CP (e.g., Dahl & Lundgren, 2006; Vowles, Wetherell, & Sorrell, 2009), with elements of compassion-based approaches (Gilbert, 2005; Neff & Germer, 2018).

Table 1. Overview of the COMP.ACT program for chronic pain.

Session Title	Theme(s)	Content	Between sessions practice
1. Introduction to COMP.ACT: control is the problem	Setting the structure and functioning of the sessions; Creative hopelessness; Introduction to mindfulness.	Welcome meditation; Creative hopelessness part I: the mind as a problem solving machine; Creative hopelessness part II: control as the problem; Creative hopelessness part III: what controlling pain has cost me; Mindful breathing meditation.	Daily mindful breathing meditation.
2. The body is (a) present: promoting body awareness through mindfulness.	The multidimensional nature of pain; Language and the paradoxical effect of thought suppression; Mindfulness, body awareness and the different components of pain experience.	Check-in mindful meditation; The pain as a multidimensional phenomenon (sensations, thoughts, emotions, behaviors); The yellow giraffe exercise; Mindfulness exercise: body-scan.	Daily body-scan exercise; Activity worksheet 3 (“the mind registration”).
3. Compassion I: from self-criticism to self-care	The relationship between mind and body; Introduction to (self)compassion as an alternative to (self)criticism.	Soothing Rhythm Breathing; Mind and body: an artificial division; Compassion in the body; Loving-Kindness meditation.	Daily practice of body-scan and/or loving-kindness. Activity worksheet 4 (“what I would say to someone who suffers like I do”) Activity worksheet 5 (“10 fingers of gratitude”)
4. Compassion II: the body is an anchor of self-compassion	Promoting self-compassion; The body as a safe place.	Soothing Rhythm Breathing; Compassionate touch; Soften, soothe and allow exercise.	Daily practice of body-scan and/or soften, soothe and allow.

5. Acceptance: there is more to accept than pain itself	Promoting openness to experience; Promoting willingness.	Shorten body-scan meditation; Describe versus evaluate; Acceptance of emotions meditation.	Daily practice of body-scan and/or loving-kindness. Activity worksheet 7 (“what have I given up?”)
6. (Re)discovering values: searching for a valued life	Values clarification; Introduction to committed action.	Present moment awareness meditation (ending: what brings me here?); Introduction to values; Values meditation; Activity worksheet 9: values exercise (“what matters to me”)	Daily practice of body-scan and/or loving-kindness. Purposely choosing one valued-based action daily.
7. ACT now: from values to committed action	Values-guided committed action; The link between present moment awareness, willingness and committed action.	Values exercise: 80th birthday; Introduction to committed action; Passengers on the bus exercise; Setting SMART goals; Activity worksheet 10 (“4 steps to committed action”)	Daily practice of body-scan and/or loving-kindness. Commit to the formulated actions in activity worksheet 10. Register obstacles to committed action and strategies to overcome the obstacles.
8. Going on after COMP.ACT: program summary	Reflection on learned skills; Embracing life kit.	The well in the field meditation; Activity worksheet 11 (“obstacles in the river: before vs now”); Gratitude meditation; Embracing life kit: program summary; Compassionate body-scan (abbreviated).	Daily implementation of the embracing life kit.

Sessions followed the same structure: 1) check-in meditation; 2) post-meditation inquiry; 3) brief sharing of experiences (obstacles, reflections, accomplishments) since last session; 4) core theme of the session; 5) session summary; 6) homework assignments.

The COMP.ACT program has 8 weekly sessions of 2h and is delivered according to a standardized and previously written workbook (with sessions′ goals, therapist guidance, instructions to meditations, metaphors and overall exercises, guiding bullet-points for post-exercises inquiry, summary and indication of between sessions assignments and practices). Participants were provided with the following materials: complementary texts, handouts with activities worksheets, and recorded audio exercises (1. Mindful breathing, 2. Body-scan, 3. Soothing Rhythm Breathing, 4. Loving-kindness, and 5. Soften, Soothe and Allow).

Participants

Recruitment occurred in the pain consultation of the anesthesiologist service of [hospital name and location]. Inclusion: a) non-malignancy CP; b) female (the healthcare service has disproportionately more women with CP; this criterion was established a priori for attaining a homogeneous sample in terms of gender); c) adults (age 18-65); d) available to attend sessions. Exclusion: a) psychosis; b) severe depression; c) substance abuse; d) non-suicidal self-injury; e) suicidal ideation; f) attending another psychological intervention.

Participants had a mean age of 50.69 (*SD* = 8.50). The majority were married (*n* = 12; 75%), and some were single (*n* = 2; 12.5%), divorced (*n* = 1; 6.3%) and widowed (*n* = 1; 6.3%). In terms of education, participants had 4th grade (*n* = 3; 18.8%), 6th grade (*n* = 3; 18.8%), 9th grade (*n* = 4; 25%), high school (*n* = 3; 18.8%), bachelors (*n* = 2; 12.5%), and masters (*n* = 1; 6.3%). In regards to duration of CP, participants reported having pain for less than 1 years (*n* = 4; 25%), between 1 and 5 years (*n* = 8; 50%), between 5 and 10 years (*n* = 3; 18.8%), and for more than 10 years (*n* = 1; 6.3%). CP diagnoses included fibromyalgia (*n* = 12; 75%), osteoarthritis (*n* = 1; 6.3%), rheumatoid arthritis (*n* = 1; 6.3%), low back back (*n* = 2; 12.5%), neck pain (*n* = 2; 12.5%), and other

(n = 6; 37.5%). Ten participants reported 1 CP diagnosis (62.5%), four reported having 2 CP diagnoses (25%), and two reported having 3 CP diagnoses (12.5%). Seven participants had other chronic illnesses (43.8%).

No significant differences were found between conditions in terms of age ($t_{(14)}$ = 1.216; p = 0.244), marital status ($\chi^2_{(3,\ n\ =\ 16)}$ = 2.12, p = 0.549), education ($\chi^2_{(5,\ n\ =\ 16)}$ = 2.79, p = 0.732), number of CP diagnoses ($t_{(14)}$ = -1.038; p = 0.317), duration of CP ($\chi^2_{(3,\ n\ =\ 16)}$ = 5.67, p = 0.129), and presence of other chronic illnesses ($\chi^2_{(1,\ n\ =\ 16)}$ = 0.91, p = 0.341).

Procedure

The current study is registered as a trial [trial number] at ClinicalTrials.gov. CP patients were invited to participate in the study by their physician or nurse during routine attendance for a pain consultation. Participants were informed about the study, that participation was voluntary, and that personal information would be accessed exclusively by the research team. Those who provided informed consent were assessed for exclusion criteria by a clinical psychologist (see Figure 1). Exclusion criteria were assed through a semi-structured 30-mins clinical interview.

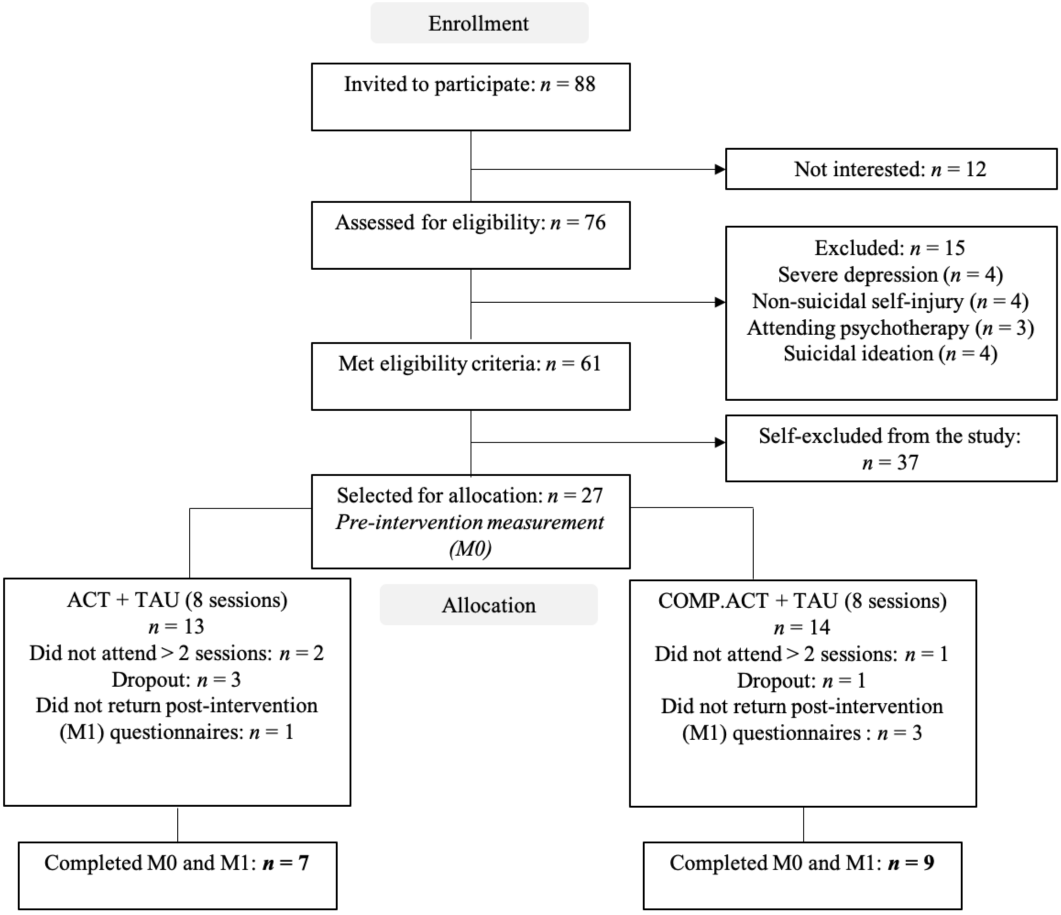

Figure 1

Diagram of participants

Conditions differed in sessions 3 and 4, in which the COMP.ACT condition included two compassion-based sessions (see Table 1), and in the ACT-only condition consisted of questions and answers regarding previous sessions, willingness and mindful meditation practice. Both conditions were identical, except for these two sessions. The intervention was conducted in a co-therapy setting by two clinical psychologists with training in ACT and compassion approaches, and previous experience in delivering acceptance, mindfulness and compassion-based interventions.

No significant differences were found between participants who were lost to post-intervention assessment and participants who completed the program in terms of age ($t_{(25)} = -0.98$; $p = 0.338$), marital status ($\chi^2_{(3, n = 27)} = 2.70$, $p = 0.440$), education ($\chi^2_{(5, n = 27)} = 4.05$, $p = 0.541$), number of CP diagnoses ($t_{(10.00)} = 1.19$; $p = 0.262$), duration of CP ($\chi^2_{(3, n = 24)} = 1.68$, $p = 0.641$), and presence of other chronic illnesses ($\chi^2_{(1, n = 24)} = 0.18$, $p = 0.673$).

Measures

In addition to socio-demographic and medical information, the protocol included self-report measures already validated for the Portuguese population.

Numerical Pain Rating Scale (NPRS; Hartrick, Kovan, & Shapiro, 2003) is a measure of pain intensity. Participants are asked to rate the average pain intensity in the last 24 hours on an 11-point scale (0="No pain"; 10="Worst imaginable pain"). A pain intensity single score was created from ratings of: 1) current pain; 2) highest pain in last 24h; 3) lowest pain in last 24h. Higher scores indicate greater pain intensity. The current study found good internal consistency in both conditions and in pre- and post-intervention: from $\alpha = 0.73$ to $\alpha = 0.90$.

Pain Disability Index (PDI; Pollard, 1984), is an 11-point scale (0="No disability"; 10="Worst disability") that measures pain disability in 7 daily life domains. Higher scores indicate higher pain disability. Our study found internal consistency from $\alpha = 0.62$ to $\alpha = 0.85$.

Depression, Anxiety and Stress Scale-21 (DASS-21; Lovibond and Lovibond 1995) is a measure of depression, anxiety and stress symptoms with 21 items rated on a 4-point Likert scale (0="Did not apply to me at all"; 3="Applied to me very much or most of the time"). The current study found internal consistencies from $\alpha = 0.53$ (anxiety at T1 ACT) to $\alpha = 0.94$ (depression at T1 COMP.ACT).

Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) is a self-reported measure of mindfulness composed of 39-items. These are divided in five facets of mindfulness: Observing, Describing, Acting with awareness, Nonjudgmental, and Non-reactive, which can be computed in a total Mindfulness score. Each item is scored on a 5-point Likert scale (1="Never or very rarely true"; 5="Very often or always true"). Higher scores indicate higher levels of mindfulness. In this study, the FFMQ total score was used and presented good values of internal consistency: from α = 0.71 to α = 0.87.

Valuing Questionnaire (VQ; Smout et al. 2014) is a 10-items measure of valued living. The questionnaire has a two-factor structure: 1) VQ-Obstruction (obstacles to valued living), and 2) VQ-Progress (progress in valued living). This study found good internal consistency of VQ-Progress (from α = 0.73 to α = 0.95), and of VQ-Obstruction (from α = 0.73 to α = 0.93) except in the ACT condition at T1 (α = 0.31).

Psychological Inflexibility in Pain Scale (PIPS; Wicksell, Lekander, Sorjonen, & Olsson, 2010) is a 16-items scale that measures pain psychological inflexibility. Items are rated on a 7-point Likert scale (1="never true"; 7="always true"). PIPS is composed of two factors: 1) Avoidance of pain and 2) Fusion with pain. We found good internal consistencies in avoidance of pain (from α = 0.90 to α = 0.95), and of fusion with pain in the ACT group (α = 0.79 and α = 0.95). However, Cronbach´s alphas of fusion with pain were bellow acceptable in the COMP.ACT group (αT0 = 0.55 and T1α = 0.34).

Self-Compassion Scale (SCS; Neff, 2003) is a 26-items scale that measures self-compassion in 2 domains: compassionate self-responding (self-kindness, common humanity and mindfulness) and uncompassionate self-responding (self-judgment, isolation and over-identification). Items are scored in a 5-point Likert scale (1="Almost never"; 5="Almost always"). There is an ongoing debate around the factor structure of the SCS (Muris & Orgaar, 2020; Neff, 2020). In this study, we will follow the two-factor approach (Muris & Orgaar, 2020). The Cronbach alphas of SCS indicate good internal consistency in both subscales (compassionate and uncompassionate self-responding): from α = 0.72 to α = 0.97.

Self-Compassion Scale-Short Form (SCS-SF; Raes et al. 2011) is the short 12-items version of the SCS. The internal consistency of the uncompassionate self-responding subscale was acceptable in both conditions and all time points (from α = 0.69 to α = 0.93). The compassionate self-responding subscale was acceptable in the COMP.ACT condition (from α = 0.63 to α = 0.85), but presented problematic internal consistency in the ACT condition (from α = 0.24 at T1 to α = 0.79 at T2).

Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT; Francis, Dawson, & Golijani- Moghaddam, 2016) is a 23-item measure of psychological flexibility processes: openness to experience, behavior awareness and valued action. For the purpose of the current study, only the total score measuring overall psychological flexibility was used. The internal consistency was acceptable in both conditions and in all time-points (from α = 0.78 to α = 0.87).

Data analysis

Qualitative analyses were conducted using *NVIVO* 12. Responses to 8 open-ended questions at post-intervention were subjected to a content analysis. The summative content analysis served as a first look into the data through the identification of specific words/concepts and respective patterns of salience and co-occurrence. The identification and quantification of manifest content in text was accompanied by an interpretation process of latent meaning and clinical significance. A direct approach was used, in which prior research or existing theory (PFM and compassion-based approaches) informed the initial coding, enabling the extraction of variables of interest or relationships between variables (Potter & Levine-Donnerstein, 1999).

Quantitative analyses were performed in SPSS version 23 (IBM Corp., Armonk, N.Y., USA). The sample characteristics and participants′ subjective impression of the program were examined using descriptive and frequency analyses. Preliminary treatment effects (2x2), and changes throughout the intervention (2x4), were tested with mixed ANOVAs within-group (time) and between-group (time x condition). Partial eta-square ($\eta^2 p$) was calculated for effect size: 0.01 small, 0.06 medium, and 0.14 large effects (Tabachnick & Fidell, 2013). Reliable and significant change examined the clinical meaningfulness of change (pre-intervention vs post-intervention) according to Jacobson's clinical significance analysis (Jacobson, Roberts, Berns, & McGlinchey, 1999). Reliable change index (RCI) tests whether individual change falls outside the range that could be due to measurement error. Reliable change occurs if it exceeds 1.96 times the standard error (see Evans, Margison, & Barkham, 1998 for an in-depth description). Change is considered clinically significant (CSC) when a person´s score moves from the "dysfunctional population" to the "functional population" (Jacobson, Follette, & Revenstorf, 1984). A cut-off is calculated considering the mean and standard deviation of the sample at pre-treatment, as well as from the comparison "functional" population. A person is considered "recovered" when the magnitude of change is above the level of the RCI and the post-treatment score is beyond the CSC cut-off (see Morley & Dowzer, 2014).

RESULTS

Intervention acceptability

See Table 2 for a full depiction of the number of participants who endorsed each category.

Table 2. Subjective evaluation of sessions and exercises by participants in the ACT (*N* = 7) and COMP.ACT (*N* = 9) conditions (number of participants endorsing each category), and test of significant difference between ACT and COMP.ACT in acceptability.

	ACT				COMP.ACT				ACT vs COMP.ACT	
	Worse	Same	Better	Much better	Worse	Same	Better	Much better	χ^2(df)	*p*
After the program, I feel that my difficulties are	0	1	5	1	0	1	8	0	1.46(2)	0.481
Since I started the program, my way of dealing with my difficulties are	0	0	7	0	0	1	7	1	1.78(2)	0.411
Since I started the program, I feel that my way of dealing with my life in general is	0	0	7	0	0	2	7	0	1.78(1)	0.182
	Not at all	Little use	Useful	Very useful	Not at all	Little use	Useful	Very useful		
How useful was the material provided at the end of sessions?	0	0	2	5	0	0	5	4	1.16(1)	0.280
How useful was the content of the program?	0	0	2	5	0	0	4	5	0.42(1)	0.515
	Never	Few times	Some times	Many times	Never	Few times	Some times	Many times		
Did you use what you learned with the program in your daily life?	0	0	4	3	0	0	8	1	2.12(1)	0.146
	Not likely	Little likely	Likely	Very likely	Not likely	Little likely	Likely	Very likely		
How likely will you use the exercises in the future?	0	1	2	4	0	0	7	2	4.26(2)	0.119

The majority of participants in both conditions reported that their difficulties are better, as well as their way of dealing with their difficulties and with life in general. In both conditions, the majority reported that the content of the program was very useful. Participants in ACT reported that the materials were very useful, while participants in COMP.ACT reported it being useful. In both conditions, the majority reported having applied what they had learned in the program, and that it is likely they will use the exercises in the future. No significant differences were found between conditions.

Qualitative analyses

After mapping the concepts and underlying context, responses from ACT (n=7) and COMP.ACT (n=9) were analyzed according to the deductive coding scheme of themes and attributes. See in Table 3 the frequencies of responses featuring themes and sub-attributes per variable, organized from highest-to-lowest frequency in each group.

Table 3. Frequency of responses featuring themes and sub-attributes to each question according to ACT (n = 7) and COMP.ACT (n = 9) conditions.

Variable	Group	Themes	Frequency
Learning[1]	ACT	**Psychological flexibility**	**6**
		Pain regulation	**5**
		Self-Compassion	2
	COMP.ACT	**Self-Compassion**	**6**
		Psychological flexibility	**6**
		Interpersonality	3
		Pain regulation	2
Utility[2]	ACT	**Mindfulness**	**2**
		Self-Compassion	**2**
		Values	**2**
		Commitment with Action	1
		Acceptance	1
	COMP.ACT	**Mindfulness**	**4**
		Self-Compassion	**4**
		Acceptance	3
		Commitment with action	3
		Values	1
	ACT	**Commitment to practice**	**3**
		Contents – Mindfulness	**2**

Challenge(s)[3]		Contents – Values	1
		Context – attending the session	1
	COMP.ACT	**Contents – Mindfulness**	**5**
		Commitment to practice	**4**
		Psychological Processes – sharing inhibition	2
		Contents – Acceptance	1
Role of the group[4]	ACT	**Interpersonal – social support**	**4**
		Interpersonal – common humanity	**3**
		Interpersonal – emotional validation	**3**
		Interpersonal – empathy	1
	COMP.ACT	**Interpersonal – social support**	**7**
		Interpersonal – emotional validation	**4**
		Interpersonal – common humanity	**3**
		Interpersonal – empathy	2
		Interpersonal – openness	1
Therapist[5]	ACT	**Technique – guidance**	**4**
		Interpersonal – emotional validation	2
		Interpersonal – openness	1
	COMP.ACT	**Technique – guidance**	**4**
		Interpersonal – emotional validation	**3**
		Interpersonal – acceptance	2
		Interpersonal – openness	2
		Interpersonal – warmth	1
Meditation exercises[6]	ACT	**Practice frequency – regular**	**6**
		Impact – psychological processes	2
		Impact – psychopathological symptoms	1
		Impact – pain	1
	COMP.ACT	**Practice frequency – regular**	**7**
		Impact – psychological processes	**4**
		Impact – psychopathological symptoms	2
		Impact – pain	1
Perception of change[7]	ACT	**Pain – more tolerance**	**3**
		Psychopathological symptoms – less anxiety	**2**
		Psychological processes – acceptance	1
		Psychological processes – commitment to action	1
	COMP.ACT	**Psychological processes – self-compassion**	**2**
		Psychological processes – commitment with values	**2**
		Psychological processes – acceptance	1
		Psychological processes – openness	1
		Psychopathological symptoms – less anxiety	1
		Psychological processes – decentering	1

		Psychological processes – less avoidance	1
Overall feedback and suggestions[8]	ACT	**Duration – wish there were future editions**	**3**
		Content – important	1
		Content – more exercises	1
	COMP.ACT	**Duration – wish there were future editions**	**4**
		Content – important	1

[1] "what have you learned with the program?"; [2] "what session/theme was more useful to you? In what sense?"; [3] "what was most difficult to you?"; [4] "what was most important to you about the group?"; [5] "In regards to the therapist(s), what was the most and least positive aspect of it?"; [6] "In what way were the meditation exercises useful?"; [7] "Do you notice any change in you after the program? If yes, which change(s)?"; [8] "Do you have any suggestion or additional comment?".

A word frequency query was used to explore the most salient aspects of the discourse in each condition. All the following quotations were translated from Portuguese into English.

For the ACT group, "Pain" (n=13) was the most frequent expression. The majority of the references reflect processes of *pain regulation*, particularly *regulation of intensity* and *emotional impact* and, to a certain extent, of *psychological flexibility*, evidenced by content on *acceptance*, *nonjudgement* and *perspective taking* (e.g. "Learned to better accept my pain"; "Learned to cope with pain in a different way"; "I notice that I have more patience towards pain"). There is also an emphasis of "to feel" in the present (n=6) and in the past (n=6). Consulting the context, the majority of the references in the present have a positive valence (e.g. "I feel more relaxed"; "I feel calmer"; "I feel the need to have more positive challenges"). References in the past (e.g. "I felt good"; "I felt at ease"; I felt confident") refer mainly to the experience with the therapist who was positively evaluated for the *technique* (trustworthy guidance and clear language) and *interpersonal* skills (emotional validation, openness, warmth, acceptance and empathy) (e.g. "I felt confident with the way he conducted the sessions"; "He is very nice, explains everything in a calm way and helped us understand"). Following feelings, there is a salience of "Life" (n=6), clearly reflecting a higher *commitment to action, vitality* and *clarification of values/goals* (e.g. “give a more positive meaning to life”; “see what I want to do with my life, give meaning to it”; “see which course I want my life to follow”) as well as group’s *social support* and *emotional validation* (e.g. “It was very important to listen to others in the group giving me strength and enthusiasm to overcome some barriers in my life”). “Learn” (n=5) and “Cope” (n=5) often co-occur. The latter is restricted to *regulation of pain* and its *emotional impact* (e.g. “cope with pain”; “better cope with pain”) whereas the former applies to *pain regulation* and *psychological flexibility* (e.g. “Learn to better accept the pain”) as well as *commitment to action* and *mindfulness* skills (e.g. “Learned to give a more positive meaning to my life”; “Learned to breathe within my thoughts, looking at them from a distance”).

The display of the most frequent expressions of the COMP.ACT group shows a distinct pattern of frequency, salience and co-occurrence. The most salient expressions are proactive verbs, namely variations of “to do” (n= 12) and “learn” (n=11). The first, applied mostly to specific tasks related to the sessions and to *psychological flexibility*, in particular *attention regulation*, *acceptance* and *mindfulness* skills (e.g. “do the exercises and accept my illness”; “concentrated doing the exercises”; “Discipline my mind and do the tasks sent by the therapist”; “try to do them each day”). The second is formulated in the past and, contrary to the way it appeared in the ACT group, focusses much less on *pain regulation* per se and more on *psychological processes* (“Learned to regulate my emotions”; “Learned that I was not alone”; “Learned to value myself more”; “Learned that I am not as useless as I imagined”; “Learned that I should be more compassionate and kind”). “Better” (n=10) appears as a descriptor for an improved *body awareness* and overall *mindful awareness* (“I can feel my body better”; “I can take better care of my body”; “I can better control my body”). When comparing to ACT patterns, it is noticeable more *self-compassionate* and *psychological flexibility attributes* (e.g. “I can accept my illness better”; “I can relax, reflect and think better before replying”; “To better understand the difficult moments of my life”). “People” (n= 10) is frequently mentioned, alluding to the *social support, emotional validation* and *feelings of common humanity* fostered in the contact with other group members (e.g. “Sometimes we think that only we suffer, but there are people in much more pain”; “It was important seeing and hearing that other people suffer as I do”). It relates to *interpersonality,* namely *openness, disclosure* and *proximity to others* (e.g. “Feel gratitude for the people that exposed their lives and experiences so I could learn with them”; “We gain much confidence in talking with these people (…) knowing they don’t judge us”).

At odds with *psychological flexibility,* and more anchored on *pain* and *emotion regulation,* there are some references to *control* (n=8) (e.g. “Learn to control my emotions; “Learn to control the pain”).

Preliminary test of efficacy

See results from mixed ANOVAs in Table 4.

Table 4. Means (M), Standard Deviation (SD), t-test differences in pre-intervention scores between conditions, and mixed ANOVA with time x condition effects.

	COMP.ACT		ACT				Time x Condition		
Variable	Pre-intervention *M*(*SD*)	Post-intervention *M*(*SD*)	Pre-intervention *M*(*SD*)	Post-intervention *M*(*SD*)	*t*	*p*	*F*	*p*	*η2p*
Depression	8.25 (5.63)	8.33 (6.18)	9.00 (5.89)	7.00 (4.08)	0.25	0.885	0.39	0.543	0.06
Anxiety	8.88 (6.45)	8.44 (5.81)	8.86 (5.67)	5.71 (3.25)	-0.01	0.996	0.66	0.432	0.05
Stress	10.25 (6.27)	10.56 (5.57)	11.14 (6.12)	8.14 (4.45)	0.28	0.785	1.44	0.251	0.10
Pain Intensity	6.13 (1.57)	6.59 (1.57)	5.79 (1.78)	6.05 (1.37)	-0.42	0.682	0.07	0.798	0.01
Pain Disability	40.56 (10.67)	46.00 (8.12)	40.57 (11.10)	37.71 (7.78)	0.00	0.998	4.13	0.062	0.23
Pain Avoidance	52.22 (16.80)	52.44 (12.62)	53.57 (9.76)	52.00 (10.80)	0.19	0.853	0.23	0.642	0.02
Pain Fusion	35.56 (8.31)	36.56 (3.54)	35.71 (7.41)	35.57 (7.89)	0.04	0.969	0.13	0.729	0.01
Obstruction to valued living	19.89 (6.93)	17.33 (6.25)	16.43 (10.42)	14.29 (4.35)	-0.80	0.438	0.01	0.915	0.00
Progress in valued living	19.67 (6.76)	20.22 (7.89)	23.29 (6.05)	21.57 (4.69)	1.11	0.285	0.61	0.448	0.04
Mindfulness	108.22 (12.47)	111.56 (12.28)	117.29 (18.58)	117.14 (14.80)	1.17	0.262	0.62	0.443	0.04
Compassionate self-responding	38.67 (9.26)	37.44 (5.17)	37.86 (7.06)	39.14 (5.98)	-0.19	0.851	0.91	0.356	0.06
Uncompassionate self-responding	41.44 (14.53)	40.44 (11.33)	43.57 (14.15)	40.86 (6.28)	0.294	0.773	0.16	0.698	0.01

Results did not show significant differences between conditions in all measured variables. Although not significant, results seem to indicate the following trends: it seems that participants in the ACT condition decrease more on depressive ($\eta^2p = 0.06$), anxiety ($\eta^2p = 0.05$) and stress symptoms ($\eta^2p = 0.10$) than those in the COMP.ACT condition. Pain intensity increases more in the COMP.ACT condition ($\eta^2p = 0.01$), and while pain disability decreases in the ACT condition, it increases in the COMP.ACT condition ($\eta^2p = 0.23$). Also, pain avoidance ($\eta^2p = 0.02$) and fusion ($\eta^2p = 0.01$) decrease in the ACT condition, while it seems to increase in the COMP.ACT condition. However, results show that participants in the COMP.ACT condition decrease more in obstacle to valued living ($\eta^2p = 0.00$) and increase more in progress in valued living ($\eta^2p = 0.04$) when compared to the ACT condition. Mindfulness also increases more in the COMP.ACT condition ($\eta^2p = 0.04$) than in the ACT condition, which seems to decrease. Uncompassionate self-responding decreases in both conditions, but it seems to decrease more in the ACT condition ($\eta^2p = 0.01$). Interestingly, while compassionate self-responding increases in ACT, it decreases in the COMP.ACT condition ($\eta^2p = 0.06$).

Reliable change (RCI) and clinical significance (CSC)

See results of RCI and CSC in Table 5.

Table 5. Reliable Change Index, Clinically Significant Change Index and Frequencies of outcome in the ACT (N = 7) and COMP.ACT (N = 9) conditions.

Measure	RCI	CSC	Condition	Deteriorated n(%)	No change n(%)	Improved but not recovered n(%)	Recovered n(%)
Depression	4.86	7.43	ACT	0 (0)	6 (85.71)	0 (0)	1 (14.29)
			COMP.ACT	1 (12.50)	5 (62.50)	0 (0)	2 (25.00)
Anxiety	5.65	6.51	ACT	0 (0)	6 (85.71)	1(14.29)	0
			COMP.ACT	1 (12.50)	4 (50.00)	1 (12.50)	2 (25.00)
Stress	4.70	9.55	ACT	1(14.29)	3 (42.86)	0 (0)	3 (42.86)
			COMP.ACT	1 (12.50)	6 (75.00)	0 (0)	1 (12.50)
Pain intensity	1.56	5.62	ACT	1(14.29)	6 (85.71)	0 (0)	0 (0)
			COMP.ACT	2 (25.00)	5 (62.50)	0 (0)	1 (12.50)
Pain disability	12.67	33.60	ACT	0 (0)	6 (85.71)	1(14.29)	0 (0)
			COMP.ACT	3 (33.33)	6 (66.67)	0 (0)	0 (0)
Pain Avoidance	10.09	35.12	ACT	0 (0)	7 (100.00)	0 (0)	0 (0)
			COMP.ACT	2 (22.22)	5 (88.89)	2 (22.22)	0 (0)
Pain Fusion	7.36	29.31	ACT	0 (0)	7 (100.00)	0 (0)	0 (0)
			COMP.ACT	2 (22.22)	7 (77.78)	0 (0)	0 (0)
Obstruction to valued living	8.82	14.08	ACT	2 (28.57)	4 (57.14)	0 (0)	1 (14.29)
			COMP.ACT	0 (0)	9 (100.00)	0 (0)	0 (0)
Progress in valued living	8.67	20.33	ACT	0 (0)	7 (100.00)	0 (0)	0 (0)
			COMP.ACT	0 (0)	8 (88.89)	0 (0)	1 (11.11)
Mindfulness	19.30	106.41	ACT	0 (0)	7 (100.00)	0 (0)	0 (0)
			COMP.ACT	0 (0)	9 (100.00)	0 (0)	0 (0)
Compassionate self-responding	9.54	37.49	ACT	0 (0)	7 (100.00)	0 (0)	0 (0)
			COMP.ACT	0 (0)	9 (100.00)	0 (0)	0 (0)
Uncompassionate self-responding	8.63	44.45	ACT	1 (14.29)	3 (42.86)	1 (14.29)	2 (28.57)
			COMP.ACT	2 (22.22)	6 (66.67)	0 (0)	1 (11.11)

Note. One participant in the COMP.ACT condition did not report DASS-21 at pre-intervention; One participant in the COMP.ACT condition did not report NPRS at pre-intervention. RCI = reliable change index; CSC = clinically significant change index.

Comparatively, more participants were "recovered" in terms of depressive (25.00%) and anxiety symptoms (25.00%) in COMP.ACT, while in ACT-only more participants "recovered" in terms of stress symptoms (42.86%). One participant was "recovered" in terms of pain intensity in COMP.ACT (12.50%), while regarding pain disability three participants have "deteriorated" (33.33%). Two participants have "improved but not recovered" in pain avoidance in COMPA.CT (22.22%), and two have "deteriorated" in pain avoidance and fusion in COMP.ACT (22.22%). One participant in ACT-only "recovered" in terms of obstruction to valued living (14.29%), while one in COMP.ACT did so in terms of progress in valued living (11.11%). No change was found in both conditions in terms of mindfulness and compassionate self-responding. Three participants in ACT-only improved, two of which "recovered" in terms of uncompassionate self-responding, while one "recovered" in COMP.ACT (11.11).

Tracking changes throughout the program

Mixed ANOVAs compared psychological flexibility, compassionate and uncompassionate self-responding between ACT and COMP.ACT in strategic time-points (pre-session 1: T0; pre-session 3: T1; pre-session 5: T2; post-session 8: T3) (see Figure 2).

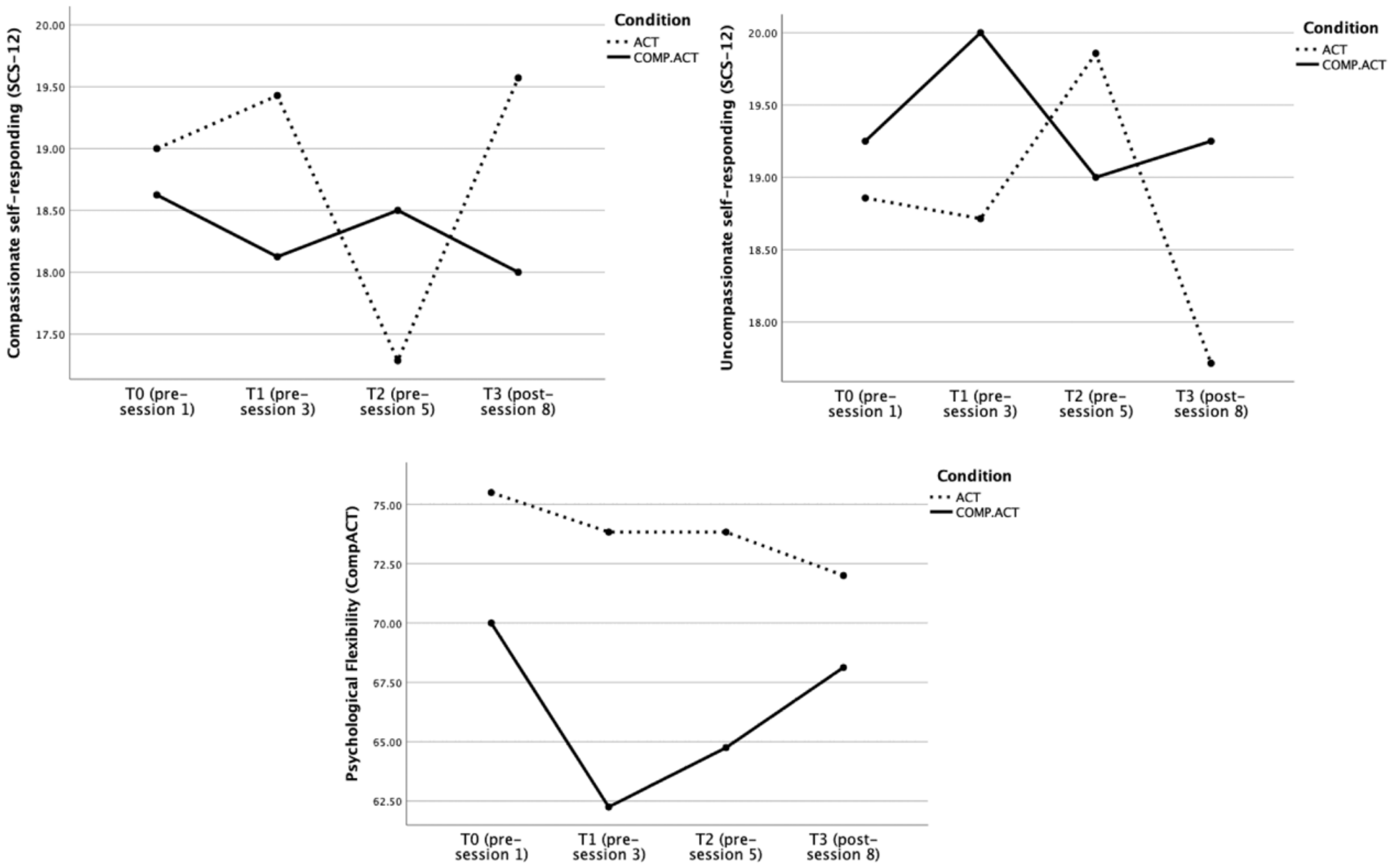

Figure 2

Changes in psychological flexibility, compassionate and uncompassionate self-responding throughout the interventions.

Results showed no differences at any time-point in psychological flexibility (*F* = 0.90, *p* = 0.421, *η2p* = 0.07), compassionate self-responding (*F* = 1.47, *p* = 0.238, *η2p* = 0.10), and uncompassionate self-responding (*F* = 0.61, *p* = 0.613, *η2p* = 0.05). Nevertheless, although not significant, results tentatively suggest the following: it seems that there is an increase in compassionate responding and a decrease in uncompassionate responding in the COMP.ACT, but not in the ACT condition, that matches the time-points concordant with the two compassion-themed sessions. Interestingly, this tendency is reversed after the values-themed sessions: compassionate self-responding increases in the ACT condition and decreases in the COMP.ACT condition, and uncompassionate self-responding decreases in the ACT condition and increases in the COMP.ACT condition. Regarding psychological flexibility, it seems to decrease during the first two sessions in both conditions, but it increases after that in the COMP.ACT condition, while it continues to slightly decrease in the ACT condition.

DISCUSSION

Results suggest that both modalities (ACT-only and COMP.ACT) were acceptable, and participants in both conditions reported improvements in their difficulties, ability to cope with those difficulties and life in general, found the program useful, and apply learned skills to their daily lives. This seems to echo previous results suggesting that incorporating compassion-based skills in ACT programs are acceptable and perceived as useful (e.g., Hill et al., 2020; Pinto-Gouveia et al., 2017; Trindade et al., 2020).

Results from qualitative analyses suggest that several components and sub-attributes extracted from participants′ responses appear in both conditions. However, it is noticeable that participants in ACT-only reported aspects of psychological flexibility and pain regulation more frequently, and participants in COMP.ACT reported self-compassion and psychological flexibility more frequently. This seems to corroborate the hypothesis that adding explicit self-compassion exercises in ACT for CP promotes the learning of self-compassionate skills. It is worth noting that, when it comes to self-compassionate attributes, the interpersonal aspect of the group format seemed to be an important aspect of common humanity (e.g., Neff, 2003). Interestingly, pain-focused content was more frequent in the ACT condition (reporting more pain tolerance, and less pain anxiety), while in COMP.ACT participants reported more changes in psychological processes, particularly more self-compassion and commitment to valued action. This finding echoes existing studies that suggest that self-compassion encompass an action-focused motivation (e.g., Carvalho et al., 2018; Gilbert, 2014; Gilbert et al., 2017). Meditation practice was reported to be regular in both groups, but in the COMP.ACT condition exercises were more frequently reported to positively impact on psychological processes.

Nonetheless, it should be noted that several instances of ambiguous content were reported. For example, although participants in the COMP.ACT condition clearly stated changes in self-compassion, it should be noted that in one instance the formulation might depict either a level of self-judgment or permission giving ("Learned that I *should* be more compassionate and kind"). Additionally, although several elements of psychological flexibility were present, it should be noted that in some instances the formulation seems to encompass elements of psychological inflexibility, particularly experiential avoidance (e.g., "Learn to *control* my emotions"; "Learn to *control* the pain"). Future studies should consider a post-intervention semi-structured clinical interview to better explore unequivocally the meaning of "control" in this context (control versus regulation) and to better establish the impact of the program in different and opposite therapeutic goals (control/regulation versus effective living) (see Blackledge & Hayes, 2001).

Quantitative analyses did not show significant differences between ACT and COMP.ACT. These results should be interpreted with caution, given that small sample sizes are both underpowered to detect effects (Type II error), and increase risk of Type I error due to unreliability of the estimate and the greater sensitivity of that estimate to outliers. (e.g., Falk & Greenbaum, 1995; Royall, 1986). However, results show some trends. Overall, results seem to echo previous evidence for the efficacy of ACT for CP (e.g., Hughes et al., 2017). Results seem to suggest that ACT-only is more effective in reducing pain intensity, pain disability and psychopathological symptoms than COMP.ACT. A puzzling result occurred regarding pain disability, which seemed to increase in the COMP.ACT condition. We suggest that a possible reading of these results should be articulated with results on pain psychological inflexibility: while pain avoidance and fusion seemed to decrease in ACT-only, it seemed to increase in COMP.ACT. Given that there were no baseline differences between conditions, compassion-based sessions and exercises may be hypothesized to have unintentionally and counterintuitively promoted some level of avoidant processes. It should be noted that the compassion-based sessions and exercises were focused on promoting self-care and a soothing way of self-to-self relating. Although the program was adamant in distinguishing compassion and potentially misguiding constructs (e.g., self-indulgence, self-pity, self-commiseration) (e.g., Gilbert, 2014), it may have been the case that some level of avoidant-based self-indulgence might have emerged. Thus, the large effect size on pain disability in the COMP.ACT group may have been a consequence of the increase in pain-related avoidance and fusion (e.g., Crombez et al., 1999; Gatchel et al., 2016; Kroska, 2016). Although not assessed in this study, one can hypothesize that these participants might have presented patterns of boom/bust cycles, and after the program they might have given self-permission to rest and self-care, which might look like more disability and doing less. Interestingly, participants in the COMP.ACT group reported more progress in valued living and less obstructions to valued living than those in the ACT-only. This seems to echo the evidence that compassion encompass an orientation to action (e.g., Carvalho et al., 2018; Edwards et al., 2019; Gilbert et al., 2017). Also, participants in the COMP.ACT condition reported a greater increase in mindfulness than those in the ACT-only condition. We can tentatively suggest that by adding explicit compassion-based exercises, participants in the COMP.ACT condition practiced the mindfulness skills inherent in developing self-compassion skills (Neff, 2003; Neff & Dahm, 2015). Results also show that while participants in both conditions report less uncompassionate self-responding at the end of the implementation, participants in the ACT-only report more self-compassion, while those in COMP.ACT report less self-compassion. On the one hand, these results seem to echo previous studies showing that ACT-only increases self-compassion in CP (Vowles et al., 2014). On the other hand, self-compassion results in the COMP.ACT condition seem to be counterintuitive. One possible way of interpreting this result is that at the end of the intervention, participants in the COMP.ACT condition were more aware of their difficulties in embodying self-compassion (see *backdraft*; Germer & Neff, 2019). Indeed, this interpretation seems to be corroborated when articulated with results from the qualitative analysis, which seem to suggest that some participants learned to better identify their difficulties in experiencing self-compassion (e.g., “Learned that I *should* be more compassionate and kind”).

These results seem to be corroborated by the RCI and CSC analyses. While the majority of participants in both conditions do not present reliable and clinically significant changes, some do significantly improve in key outcomes (e.g., psychopathological symptoms, valued living and uncompassionate self-responding). However, it is premature to establish confidently a pattern of individual clinical benefits of COMP.ACT comparatively to ACT-only, given that the current small sample does not allow a more in-depth examination of which factors are associated to individual response to the program.

In regard to changes during the implementation, results seem to suggest that changes in psychological processes are coherent with the psychological processes addressed in session. Particularly when it comes to compassion, results suggest that there is an increase in compassionate self-responding and a decrease in uncompassionate self-responding during the 2 compassion-based sessions (Sessions 3 and 4) of the COMP.ACT condition, while the opposite occurred in the ACT condition. This seems to suggest that changes in compassion reflect the content of the intervention. However, after session 5, an opposite trend seems to occur: ACT-only seemed to increase in compassionate self-responding, and decrease uncompassionate self-responding, and the opposite occurred in the COMP.ACT condition. In regard to psychological flexibility, it seems to decrease during the first 2 sessions in both conditions. This may be a consequence of increased awareness of these psychological inflexibility processes, given that these sessions focused on creative hopelessness, body and present moment awareness. Interestingly, while psychological flexibility seems to decrease slightly throughout the intervention, it seems to increase after sessions 3 (compassion I) until the end. Although this seems to echo the relationship between compassion and psychological flexibility (e.g., Luoma & Platt, 2015; Neff & Tirch, 2013; Tirch et al., 2014), it should be noted that these changes were not statistically significant.

The limitations of this study should be considered. Firstly, the sample was composed of women, which does not allow for further generalization of results to other genders. Also, the sample was small, which may have contributed to the lack of significance of results. Before drawing a definitive conclusion on differences between conditions, this study should be replicated in a larger sample. Also, although all participants could read and write, some had a primary-level education, which may have impacted on the interpretation of items and consequently results. Indeed, the problematic internal consistency of some subscales may have been a result from the low education level in our sample. This calls for a wider discussion on the representativeness and generalizability of results in psychometrics and efficacy studies. For example, when considering ACT interventions for CP, studies are usually conducted with highly educated participants (see meta-analyzed studies in Hughes et al., 2017). This seems to be aligned with concerns of skewness in psychological sciences due to WEIRD findings, i.e., studies in western, educated, industrialized, rich and democratic societies (e.g., Henrich, Heine, & Norenzayan, 2010). This study should be replicated in a larger sample in order to explore differences according to levels of education. Also, future studies should conduct mediation analyses that allow for the examination of mechanisms of change. Finally, participants were allocated according to schedule preference. Future studies should follow a randomized control trial design.

Conclusion

These results seem to suggest that including explicit self-compassion exercises in an ACT program for CP (COMP.ACT) is an acceptable and useful strategy to complement medical treatment as usual for women with CP, particularly when therapeutic goals are to promote mindfulness skills and valued action. The current study is built on previous research that established the efficacy of ACT for CP (e.g., Hughes et al., 2017), as well as on the efficacy of incorporating compassion in mindfulness- and acceptance-based interventions (e.g., Pinto-Gouveia et al., 2017; Trindade et al., 2020), and further contributes to the knowledge on self-compassion in ACT by comparing it to a standard ACT-only intervention.

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PART III SYNTHESIS AND CONCLUSIONS

Chapter 7: General Discussion

The current dissertation sought out to contribute to a better understanding of the psychosocial variables underlying the emotional suffering of women with chronic pain. There is extensive literature on the aetiological complexity of chronic pain, which seems to result from an interplay of biological, psychological and social factors (e.g., Bevers et al., 2016; Engel, 1977; Loeser, 1982; Turk & Okifugi, 2002). The path towards the current integrative biopsychosocial approaches to chronic pain was built on the shoulders of scientific advances in different fields, including psychological science. These scientific developments in psychological science led to instances of paradigm shift that spilled into the understanding and management of chronic pain. The cognitive and behavioral models of human suffering contributed greatly to expand the knowledge on chronic pain mechanisms, moving us away from stricly biomechanical pathophysiological models of stimuli-response, and rather towards approaches that include the overall human psychology (such as operant learning, attributions, beliefs, cognitive bias, avoidance, etc).

Recently, new approaches have vouched for a shift in chronic pain management, from psychological interventions that focus on the elimination of symptoms and change of maladaptive cognitive content, to new approaches that rather focus on acceptance, awareness, and self-compassion, in order to promote valued living and less overall emotional suffering (e.g., McCracken & Vowles, 2014; Purdie & Morley, 2016; Wicksell et al., 2010). These approaches, in addition to being relatively new in their applicability to chronic pain, present several conceptual and practical issues that need further examination: 1) absence of fitting instruments that measure some of the key constructs (e.g., valued living, validation, criticism); 2) conceptual overlap between psychological processes (mindfulness, self-compassion, acceptance), which calls for a better understanding of their unique contribution and interactions in chronic pain; 3) the temporal effect of these psychological processes on depression, given that the majority have been explored with the limitations of cross-sectional designs; 4) better understanding of the role of self-compassion in ACT for chronic pain, given that it seems to be an underlying mechanism of change, even though not explicitly promoted.

The current section aims to provide a synthesis of results from the 10 empirical studies conducted in the current project. It is worth reminding that each empirical study contains a more in-depth discussion in light of its specific limitations. Thus, here we will focus on an overview of main results, overall limitations, and reflections on their clinical implications.

7.1. Discussion and overall conclusions of main findings

In order to facilitate the capture of main results, the general discussion will be divided into the four broad aims of this dissertation. First, we will focus on the main results of studies that validated and/or developed measures of relevant psychological processes (studies I and II), which will hopefully contribute to new avenues of research into psychological processes in chronic pain. Then, we will provide a summary discussion of the results from the cross-sectional studies (studies III, IV, V, VI, VII), which explored the unique contribution of several psychological processes, contributing to a more fine-tuned understanding of different overlapping processes in chronic pain. The next section will discuss the main findings of time-lagged studies (studies VIII and IX), which tested the temporal relationships between key psychological variables (that were cross-sectionally attested as relevant processes) and depressive symptoms in chronic pain.

Finally, we will focus on the clinical study (study X), which will contribute to a better understanding of the role of self-compassion in ACT for chronic pain.

7.1.1. Psychometric contributions

In **study I**, we translated and explored the psychometric properties of the Valuing Questionnaire (VQ; Smout et al., 2014). This was not only a validation to the portuguese population, but the first study on the utility of the VQ in chronic pain. The need for validating a new measures of valued living was based on the limitations of previous instruments, which: a) are usually specific to life domains (which potentially leads to bias in results, given that a value in a life domain may be endorsed, but context-related variables may impede one to act consistently with that value); b) potentially overlap with life satisfaction (such as the engaged living scale); and c) do not provide a measure of obstacles to valued living. Confirmatory factor analysis showed that the two factor structure (progress in valued living; obstructions to valued living) presented good fit to the data, all items showed good local model fit, and the two factor solution was invariant across samples (chronic pain sample and general population sample). The original factor structure was, thus, confirmed, and both factors significantly correlated, in the expected direction, with cognitive fusion, depression, anxiety and stress, mindful awareness, self-compassion and quality of life (all subscales). Interestingly, the higher magnitude of association with obstructions to valued living was cognitive fusion, which seems to corroborate the assumption that being entangled with internal experiences is an obstacle to engage in valued-based actions (e.g., Hayes et al., 2006). In addition to the VQ being temporally stable (in a 6-month period), results showed that it does indeed contribute significantly to depression, anxiety and stress in chronic pain, beyond other measures of values (both domain specific – VLQ – and general measures - ELS), as well as beyond overall psychological inflexibility (measured with AAQ-II).

Study II aimed to develop and explore the psychometric properties of a new measure of perceived validation and criticism by significant others: the Perceived Validation and Criticism in Pain Questionnaire (PVCPQ). The chronic pain literature has extensively studied the impact of social relationships on clinical outputs, such as pain disability and psychopathological symptoms (e.g., Bernardes et al., 2017). Nonetheless, the majority of studies have been focused either on social support (Che et al., 2018) or on the social impact of chronic pain (e.g., Dueñas). More recently, there has been a growing interest in exploring other emotionally-related elements of interpersonal relationships, particularly the experiences of validation and criticism (see Cano & Tankha, 2017). However, a closer look into the methodology and measures used to study these constructs may result in relatively skewed results. Specifically, studies on validation seem to be either a) focused on the objective codifiable spousal behavior of validation (thus, not providing information on the subjective experience of being validated when having a pain flare), and/or b) use measures of proxy constructs, such as measures of social support. In fact, studies that explored the subjective experience of validation by a significant other used measures/subscales of "responsiveness" and "solicitousness", which usually tap into instrumental coping (fetching medication, taking over house chores, etc), rather that on actual validation. When it comes to studies on criticism, these usually use 1-item methods (e.g. straighforwardly asking "How critical of you was he/she during the past 3 hours?"), which are far from able to grasp such a complex construct as criticism. Also, when studies try to overcome this limitation, they use "punishing" subscales of social support measures, which focus on harsh emotional responses from significant others (e.g., irritation, anger, frustration), thus ignoring the nuances of criticism (which may occur through negative comparative criticism, shaming, put-down and conditional rules, without conveying strong emotional responses). The hypothesized two-factor solution of the PVCPQ was found through the exploratory factor analysis, and results showed good internal consistencies, and a pattern of correlations, in the expected direction, with pain intensity, functional impairment, positive and negative affect, social safeness, and compassionate engagement and action from others. In fact, hierarchical regression analysis showed that perceived criticism was a significant predictor of functional impairment, above and beyond pain intensity, affect, social safeness, compassion from others, while controlling for potentially relevant background variables (age, years of education, number of chronic pain diagnoses, medication, and other chronic illness). In the last step of the model, when compassion from others was added to the model, the validation in pain failed to reach significance. Although neither did compassion from others, this seems to call for more in-depth examinations of the relationship between validation and compassion in chronic pain. These are potentially overlapping conceptually (they share elements such as acceptance, nonjudgment, empathy/empathic resonance), which, in order to attain parsimonious and robust models of chronic pain, should be further explored and clarified.

7.1.2. Cross-sectional associations between pain, psychological processes and depressive symptoms

This project also aimed to contribute to a better understanding of the unique contribution of key psychological processes in chronic pain, and more specifically to examine putative patterns of associations and interconnections between these processes. Each of these processes present differentiating elements, a well as share overlapping components with each other. Knowing these patterns of associations potentially impact psychological approaches to chronic pain management, in the sense that it hopefully informs more effective interventions.

In **study III**, we explored whether cognitive fusion mediates the relationship between pain intensity and depressive symptoms. It is widely acknowledged that cognitive factors play an important role in chronic pain aetiology, as well as the relationship between pain itself and depression. However, the majority of studies, many of which under the umbrella of the fear-avoidance model (Vlaeyen et al., 1995; Leeuw et al., 2007), have leaned on pain-specific processes that are content-focused, such as appraisals and catastrophising (e.g., Jackson et al., 2014; Sullivan et al., 2001), and less on the underlying process of getting entangled with these contents. Additionally, although ACT literature suggests that promoting cognitive defusion, acceptance and present moment awareness are ways of decreasing the entanglement with internal experiences (e.g., Hayes et al., 2006), we aimed to explore whether those individuals with more self-compassion were less depressed. Results showed that part of the relationship between pain intensity and depression occurs through cognitive fusion, i.e., the entanglement with thoughts and emotions. It is worth mentioning that these internal experiences are not necessarily related to pain, given that we purposefully used a general cognitive fusion questionnaire (CFQ; Gillanders et al., 2014). Also, results suggest that self-compassion moderates this mediation, suggesting that the relationship between cognitive fusion and depression is buffered when an individual is able to be self-compassionate. This corroborates the assumption that psychological-related variables matter greatly in chronic pain, and that pain suffering results not exclusively from the sensory-related variables such as pain intensity, but also from overall psychological processes.

Study IV explored the role of different components of pain acceptance, particularly which component contributes to the relationship between mindfulness and self-compassion, and depression (while controlling for pain intensity, given that the previous study had shown a significant direct relationship). The rationale for this study was based not only on the scarcity of research on the different components of pain acceptance (a mental component – pain willingness -, and a behavioral component – activity engagement), but also on the aknowledgment that mindfulness and self-compassion are conceptually close constructs, with overlapping elements, such as awareness and acceptance. Results showed that activity engagement (but not pain willingness) mediated the relationship between self-compassion (but not mindfulness) and depressive symptoms. This seems to corroborate the hypothesis that self-compassion has an inherent motivation to action (e.g., (Gilbert, 2005; Pauley & McPherson, 2010), which seems to be related to experiencing less depressive symptoms. These results suggest that when it comes to depressive symptoms in chronic pain, self-compassion seems to be a more important process than mindful awareness, and it seems to contribute to less depression through the engagement in daily activities despite pain. It is crucial to conduct a thorough reflection before interpreting these as definite results, particularly considering the self-compassion scale (SCS; Neff, 2003). Specifically, it should be noted that self-compassion was measured through the compassionate self-responding component of the SCS, which include several mindfulness items. This raises interesting reflections and invites further research on which specific aspects of self-compassion are contributing more strongly to the model. This is not merely a theoretical entertainment around concepts, but rather a necessary scientific endeavor that potentially impacts on clinical strategies. In fact, different exercises might be applied according to which component are more relevant (self-kindness, common humanity, mindfulness): it may be the case that, in order to better promote acceptance-based activity engagement, clinicians may be more effective either with imagery exercises that help cultivate self-kindness, or with exercises that promote a sense of connectedness, safeness and common humanity, or exercises that simply promote awareness. Nevertheless, our results clearly suggest that self-compassion contributes to depressive symptoms more than mindful awareness, and it does so through acceptance-based activity engagement.

In study V, we aimed to better understand the link between mindful awareness and depressive symptoms in chronic pain. Based on the seminal research around depression relapse prevention, and the role of mindful awareness as a protective factor against reciprocal loops of negative mood and negative cognitions and bias (e.g., Segal et al., 2004; Teasdale et al., 1995), we hypothesized that rumination would be a mediator. The role of rumination in chronic pain is underexplored and almost exclusively in the context of pain catastrophising. Additionally, we sought to better understand if rumination itself impacts on depression, or whether behaviorally-related outputs would play a role, such as the ability to live accordingly to personal values. Results suggest that the way through which mindful awareness relates to less depressive symptoms is not only due to the fact that it implicates less rumination in itself, but also because less rumination is inherently related to experiencing less obstacles in living according to personal values. It is worth mentioning that these “obstructions”, as measured by the VQ (Smout et al., 2014), are internally-focused, and not contextual. These include entanglement, auto-pilot, and overall avoidance. These results potentially inform clinical practice in the sense that they suggest the importance of not only tackling ruminative thinking (e.g., fostering decentering through mindfulness), but also promoting values clarity and engagement with valued living. This seems to echo the ACT assumption that interventions should focus on not only promoting acceptance and awareness, but also valued action (e.g., Hayes et al., 2011).

As previously argued, another aspect that seems to be key in chronic pain is interpersonal relationships. However, literature seems to be overly focused on the impact of chronic pain on social relationships and overall the impact of overall social support (e.g., Dueñas et al., 2017), and less on the subjective and potentially intrapersonal ability to experience safeness and pleasure within social relationships. In **study VI**, we explored the processes through which self-compassion might relate to feelings of social safeness and pleasure, and hypothesized that it might occur through less fears of compassion. Prior studies suggested that fears of compassion (particularly of receiving compassion from others and from the self) are associated to psychopathology outside chronic pain (e.g., Gilbet et al., 2012; Miron et al., 2016). Although this had never been tested in chronic pain, we hypothesized that fears of compassion would be an important element in this population, given that the emotional impact of impairment and burden associated to illness might result in compassion being experienced as socially threatening (i.e., as a social signal of lower rank). Results showed that self-compassion is related to more social safeness and pleasure through a decrease in fears of receiving compassion from others. In other words, a tentative interpretation is that self-compassion, due to its inherent impact on affiliation, leads to the deactivation of threat-focused systems related to receiving care and compassion from others, which in turn promotes social safeness and pleasure. It is worth mentioning that this relation between variables was significant while controlling for depressive symptoms, functional impairment and pain intensity. This seems to hint that psychological interventions in chronic pain would benefit from targeting the ability to receive compassion, when aiming at promoting social safeness. This is particularly relevant for psychosocial interventions: these results suggest that intrapersonal processes should be targeted when working aspects of support from significant others (for example, during a pain flare), particularly patients′ ability to receive support, care and kindness from others, without overactivating threat-focused responses and/or learning how to relate with these threat-focused experiences in a workable and effective way.

In **study VII**, we aimed to further examine the components of the SCS that more strongly relate to depressive symptoms in chronic pain. Much have been written around the factor structure of the SCS, and its contribution to psychopathology, quality of life and well-being (see Neff, 2020; Muris & Otgar, 2020). Although in-depth considerations on its psychometric qualities is beyond our intentions for this dissertation, it seems undeniable that the "uncompassionate" subcomponents are the ones strongly contributing to published results (which have used the total scale as a measure of "self-compassion"). This calls for a reflection, and revision, if necessary, on the evidence for self-compassion: are the compassionate attributes (self-kindness, common humanity, mindfulness) responsible for clinically relevant outputs, or rather the reversed uncompassionate attributes (self-judgment, isolation, overidentification) are the ones responsible for the evidence? We sought to modestly contribute to this rather complex question by testing which SCS component more strongly predicts depressive symptoms, while controlling relevant pain-related variables (pain intensity and disability) and related psychological processes (pain fusion and avoidance, obstructions to and progress in valued living). In accordance with these concerns raised regarding the SCS, depressive symptoms were only significantly predicted by uncompassionate self-responding. It should be noted that all studies in the current dissertation have preemptively considered these issues, and used the two-factor solution. This assured us that all results pertaining to self-compassion were, in fact, a reflection of the actual compassionate self-responding component, and not a statistical artefact related to the high correlation between uncompassionate self-responding and psychopathology (e.g., Lopéz et al., 2018; Muris & Petrocchi, 2016). Putting the SCS controversy aside, these results seem to suggest that self-responding in an uncompassionate manner (with judgment, feeling isolated and overidentified with internal experiences) is a relevant contributor to depression in chronic pain, above and beyond other key pain outputs and psychological processes. This seems to be aligned with the extensive literature on the toxicity of self-criticism and isolation and its role in depression (e.g., Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Gilbert, Baldwin, Irons, Baccus, & Palmer,, 2006).

7.1.3. Time-lagged examinations of psychological processes and depressive symptoms

In order to explore temporal relationships between key psychological processes, pain outputs and depressive symptoms (and to examine whether some of the cross-sectional relationships would hold up longitudinally), two time-lagged studies were conducted.

In **study VIII**, we tested the predictive effect of cognitive fusion in the trajectory of depressive symptoms over a 12-month period, while controlling for pain intensity and functional impairment. The rationale behind the study was based not only on the cross-sectional results of study I (where cognitive fusion was shown to mediate the association between pain intensity and depressive symptoms), but also on the theoretical assumption that human suffering, overall, results from the entanglement with internal experiences due to language-related processes (e.g., Hayes et al., 2006; Hayes et al., 1999). Results corroborated our hypothesis, and showed that cognitive fusion (but not pain intensity nor functional impairment) predicted the changes on depressive symptoms over the 12-months. Interestingly, no demographic variable or illness-related variables (age, marital status, education, socio-economic, number of chronic pain diagnoses, duration of chronic pain, taking medication) was significantly associated with depressive symptoms at any time point. This suggests that being entangled with internal experiences may be a much more salient risk factor for developing depression in chronic pain than pain intensity or impairment. These results highlight the need for psychological interventions in chronic pain to promote defusion and distancing from internal experiences in order to reduce de risk of developing depression. Cognitive fusion is a core process within psychological inflexibility, and is the underlying process of entanglement with thoughts such as "this pain will never go away" or "this is unbearable". Its nefariousness comes from the fact that it is the basis for several maladaptive processes (e.g., catastrophising, rumination, self-criticism) (McCracken & Morley 2014), which makes it crucial to consider it a key target of psychological interventions for chronic pain. Although these results should be replicated in a larger sample that allows for more complex models to be tested (e.g., mediational cross-lagged panel models), they nonetheless have clinical implications. Specifically, these results suggest that psychological interventions for chronic pain would benefit from shifting the attention from an overfocus on reducing pain symptoms, to rather tackling unhelpful entanglement with thoughts and emotions in order to reduce the risk of depression.

A recent interest in chronic pain research is towards understanding the benefits of self-compassion (Purdie & Morley, 2016). This growing interest is not only based on the mounting evidence of its putative protective role against psychopathology (MacBeth & Gumley, 2012), and overall association with well-being (Zessin et al., 2016) and adaptive behaviors (Sirois et al., 2015), but also on its specific potential usefulness in chronic pain: self-compassion seems to involve oxytocin-endorphin systems (Rockliff et al., 2011) that seem to be involved in pain modulation (e.g. Tracy et al., 2015). Nonetheless, self-compassion is not only underexplored in chronic pain, but research tends to make methodological decisions that hinder accurate conclusions. Firstly, the few studies conducted present the limitations of cross-sectional designs. Also, the majority of studies use the total score of the SCS, unabling definite conclusions on whether results do indeed reflect self-compassion or just the absence of uncompassionate self-responding. Finally, studies usually do control for conceptually related constructs (e.g., mindfulness) when studying self-compassion, which may result in an overinflation of the role of self-compassion. Thus, in **study IX** we have considered these limitations, and explored the temporal associations between self-compassion and depression over 12-months, while controlling for mindful awareness, pain intensity, functional impairment and depression at baseline. Also, based on the assumption that self-compassion is a protective factor against depression, we tested whether self-compassion would moderate the impact of functional impairment on depressive symptoms 6- and 12-months later. Results suggest that pain intensity did not correlate with depressive symptoms at any time-point, but contrarily depressive symptoms were associated to pain intensity 6 months later. This seems to indicate that depression is not merely a result from pain, thus corroborating the complexity of the relationship between pain and depression (e.g., Lerman et al., 2015; Wörz, 2003), and suggesting that psychological processes may operate this relationship (e.g., Gatchel et al., 2007; Vlaeyen et al., 2016). Also, results showed that self-compassion predicted less depressive symptoms 6- and 12-months later, while mindful awareness did not, and this significant effect occurred while controlling for depressive symptoms at baseline and functional impairment. This corroborates cross-sectional results suggesting that self-compassion is a better predictor of mental health than mindful awareness (e.g., study IV; Van Dam et al., 2011), which seems to indicate that the mere attentional component of mindfulness does not greatly contribute to lessen depressive symptoms in chronic pain, and that an attitude of self-responding with compassion when facing difficulties is a more important feature. Additionally, results seemed to suggest that self-compassion plays a buffering role in the association between functional impairment and depressive symptoms 6-months later. It should be noted that functional impairment itself is nonetheless a significant predictor, regardless of self-compassion (low, medium, high). However, results seem to indicate a trend: the relationship between functional impairment and depressive symptoms 6-months later seems to be weaker when participants are able to be self-compassionate. This corroborates, in a time-lagged design, what seemed to be suggested by cross-sectional studies: self-compassion is a protective factor against depression (study III; MacBeth & Gumley, 2012) and is related to less disability/impairment (study VI, VII; Wren et al. 2012).

Taken together, these results seem to indicate that a psychological intervention to chronic pain, in addition to focusing on promoting decentering/defusion (studies III, VIII), awareness and acceptance (studies IV, V), and valued living (studies I, V), would benefit from including an additional component centered on promoting (self)compassion and safeness (studies II, IV, VI, VII, IX).

7.1.4. The COMP.ACT program: pilot test

There is a growing interest in self-compassion in ACT, even though self-compassion is not a part of the PFM nor is explicitly targeted in ACT (e.g., Luoma & Platt, 2015; Tirch et al., 2014; Yadavaia et al, 2014). However, some have suggest that self-compassion may be a tacit process underlying the PFM of chronic pain (Vowles et al., 2014a), and it seems to be a mechanism of change in ACT for chronic pain (Vowles et al., 2014b). Nonetheless, the added value of explicit self-compassion exercises in ACT is yet to be explored. In fact, although several studies, in different clinical samples, have shown that group psychological interventions that incorporate elements of ACT and compassion-based interventions are effective (e.g., e.g., Hill et al., 2020; Palmeira et al., 2017; Pinto-Gouveia et al., 2017; Skinta et al., 2015; Trindade et al., 2020), these have not explored the added value of the compassionate component, and present the limitations of having a passive control condition (e.g., wait-lists; medical treatment-as-usual).

In **study X**, we aimed to contribute to the understanding of the added value of self-compassion in ACT for chronic pain by developing (in a standardized workbook) a Compassionate ACT group intervention (COMP.ACT) and comparing it with an ACT-only group intervention, in a mixed-method design. Results did not show significant differences in terms of acceptability: participants in both conditions reported the program(s) improved their difficulties, their ability to cope with life in general, found the program useful, and applied learned skills to their daily lives. Qualitative analyses found that some components/sub-attributes were found in both conditions. However, a somewhat different pattern of content in the discourse of participants in different conditions was found: participants in ACT-only reported aspects of psychological flexibility and pain regulation more frequently, and participants in COMP.ACT reported self-compassion and psychological flexibility more frequently. This seems to corroborate the hypothesis that adding self-compassionate exercises in ACT would promote the learning of self-compassionate skills. Interestingly, participants in the COMP.ACT condition reported more changes in commitment to valued action than those in ACT-only, which seems to tentatively corroborate the assumption that compassion has an orientation to action (Gilbert, 2014; Gilbert et al., 2017). Meditation exercises were reported to have a more positive effect on the psychological processes in the COMP.ACT condition. In regards to quantitative analyses, results did not found statistical differences between conditions. Although non-significant, results tentatively suggest a trend: participants in ACT-only seem to report more improvements in pain intensity, pain disability and psychopathological symptoms, and participants in COMP.ACT seem to report more progress in valued living and less obstructions to valued living. Given that the only difference between conditions were the 2 compassion sessions in the COMP.ACT condition, these results seem to corroborate, again, that self-compassion is an action-oriented process, and not only a strictly “mental” one (e.g., Edwards et al., 2019; Gilbert et al., 2017). An interesting result was that participants in ACT-only seemed to report more improvements in compassionate self-responding than those in COMP.ACT. Although this might be seen as a puzzling result, it can, in fact, be interpreted as a result from *backdraft* (Germer & Neff, 2019): at the end of the intervention, participants in the COMP.ACT condition were more aware of their difficulties in embodying self-compassion, thus reporting more uncompassionate and less compassionate self-responding. Future studies should conduct follow-up assessments to track these processes in a more dilated time period. In addition to exploring statistical significance, we have looked into clinical significance change of each participant. Results suggest that although the majority of participants in both conditions did not show reliable and clinically significant changes, some do significantly improve in key psychological processes, and these results echo those both from the qualitative analysis, and from the quantitative between-group analyses. More participants improved in terms of anxiety and depression in COMP.ACT, and more in terms of stress in ACT-only. More participants improved in terms of more progress in valued living in COMP.ACT, although more seem to have improved in terms of experiencing less obstructions to valued living in ACT-only. Also, more participants in ACT-only improved in terms of uncompassionate self-responding. These results, which should be interpreted with caution considering the small sample size, overall seem to suggest that the decision to include or not explicit self-compassion exercises should be guided by a thoughtful reflection on which is the specific therapeutic goal we are aiming to attain. It seems that adding explicit self-compasssion exercises in

ACT is particularly worth doing when therapy is directed at improving valued action, and tackling depression and anxiety in chronic pain. Nonetheless, these results should be replicated in much larger sample sizes, in order to conduct more robust statistical procedures (e.g., that would allow for examining mechanisms of therapeutic change), thus leading to more definite conclusions. In addition, we have examined whether changes in psychological flexibility and (un)compassionate self-responding throughout the program would mirror the content of sessions throughout the intervention(s). Although no significant changes were found, trends in changes in these psychological processes seem to indicate a coherence between session content and change in psychological processes. Particularly, there is an increase in compassionate self-responding and decrease in uncompassionate self-responding in COMP.ACT, but not in ACT-only, that matches the time-points concordant with the two compassion-themed sessions. This trend seems to be reversed after the values-based sessions, which may be a result from the aforementioned backdraft effect as the awareness of difficulties in embodying self-compassion sets in. Psychological flexibility seems to slightly increase after the (self)compassion sessions in the COMP.ACT, while it seems to decrease in the ACT-only condition. This seems to corroborate the close relationship and interplay between compassion and psychological flexibility (e.g., Luoma & Platt, 2015; Neff & Tirch, 2013; Tirch et al., 2014). Overall, more studies like this are needed, in larger sample sizes, to better understand the added valued of explicit (self)compassionate exercises in ACT for chronic pain, and particularly to help establish to whom and towards which specific therapeutic goals self-compassion is an added asset.

7.2. Considerations on limitations and future directions

The empirical studies included in the current dissertation are not exempt from criticism due to their inherent limitations. Some limitations are related to circumstantial aspects resulting from data collection (e.g., sample size), and the inability to conduct more robust and conclusive data analyses (e.g., analyses of mechanisms of change), and other limitations resulting from methodological decisions that were, in some instances, based on practical constraints (e.g., avoiding assessment burnout, thus limiting the variables in study). It should be noted that each empirical study discuss these limitations at great length, thus the current section will be a global commentary on overall limitations throughout the studies.

Firstly, although the current work had made the effort of conducting time-lagged and quasi-experimental studies, the majority of the empirical studies followed a cross-sectional design, which precludes conclusions regarding causality. The models tested were based on hypothesized theoretically-driven relationships between variables, and conducted through robust statistical analyses. When literature did not provide a definite model, or when the exploratory nature of models implied a potential circularity, the inversed relationship between variables was tested (e.g., study VI). Nonetheless, drawing causality from the cross-sectional studies is unwarranted. Future studies should test these relationships in longitudinal and/or experimental designs.

Additionally, it should be noted that all data collected was self-reported, which may imply a level of bias related to social desirability and emotional state when completing the questionnaires. Future studies should consider collecting data from other sources, such as significant others, reports from medical assessments, and objective behavioral data. However, it is worth reminding that the studies conducted in the current dissertation were interested in examining the subjective internal experiences, which are not necessarily identifiable through objective methodologies, but rather better assessed through self-report. These psychological processes are in essence middle-level terms (i.e., theoretically-derived and not generated by basic science) (Barnes-Holmes, Hussey, McEnteggart, Barnes-Holmes, & Foody, 2016), which makes them not entirely able to be translated through observable behavior nor pinpointed in objective science (such as neuroscience). Nevertheless, a multisource assessment would provide richer information, including on the role of relational context, particularly when studying potentially interpersonal processes such as compassion from others, validation in pain, criticism in pain, and social safeness. Although these imply the mediation of intrapersonal processes, future studies should explore the relationship between significant others′ objective behavior, the subjective perception of that behavior, and the psychological processes operating this relationship.

Also, interpretation of results should have in mind issues with sample size, particularly when looking into study X. In fact, the small sample prevents us from drawing definite conclusions regarding the role of explicit (self)compassion exercises in ACT. Although we have used as much methodological scrutiny as possible (qualitative and quantitative analyses; statistical and clinical significance analyses; tracking changes in processes throughout intervention), the sample size does not allow us to definitively answer the research question. Future research should replicate this study in a larger sample size, in order to not only explore differences, but also to be able to expand the knowledge and inform tailored interventions in chronic pain, specifically by informing on who benefits from which modalities of ACT.

Another aspect that should be considered when interpreting results is the fact that sample recruitment was conducted through convenience sampling, which makes our data non-probabilistic and thus non-representative of the chronic pain population. Future studies should replicate these findings in representative samples, which would allow for generalization of results. In fact, several issues should be closely regarded in terms of the generalizability of our findings. Firstly, all chronic pain samples were composed of women. In this regard, a distinction in terms of *a priori* strategic plan should be made here. We have preemptively thought out to select only women to the clinical study (studies VII and X), for two reasons: firstly, the majority of studies seem to point out that there are more women with chronic pain than men. But more importantly, this decision was also guided by the fact that this study would imply a face-to-face group intervention, where potentially sensitive issues could come up in sessions, and gender-related interpersonal shame could arise, thus potentially confounding results. However, the all-female sample of the online studies were not purposeful, but rather a chance effect of recruitment (only 5 to 9 men participated throughout the studies). Future studies should replicate these findings in samples composed of different genders, exploring model invariance and examining specificities related to the role of these psychological processes in different genders. Also, the samples collected were not balanced in terms of levels of education, and an opposite pattern occurred according to recruitment: the online samples were more highly educated (the majority had at least high-school degree) than the paper-and-pencil sample collected in the Anesthesiology Service of CHUC (many of which with primary-level education). This not only implicates that our results may not be representative of the whole population of women with chronic pain, but in fact calls for a much deeper discussion on psychological science as a whole, and clinical psychology in particular. For example, when considering the RCTs of the efficacy of ACT in chronic pain, studies are usually conducted with highly educated participants (see meta-analyzed studies in Hughes et al., 2017). This calls for a thorough examination of whether standardized ACT interventions that are effective in highly educated samples can be applied without adaptation into samples composed of participants with low levels of education. In fact, this note seems to echo an ongoing discussion regarding the universality of results derived from psychological science, as well as with concerns of skewness due to WEIRD findings (i.e., studies in Western, Educated, Industrialized, Rich and Democratic societies) (e.g., Henrich, Heine, & Norenzayan, 2010). Still regarding the representativeness of samples, we should also consider that our samples were not balanced in terms of chronic pain diagnoses. In fact, a major portion of samples were composed of women with fibromyalgia, which may raise understandable concerns regarding to whom these findings are applied to: overall women with chronic pain or specifically women with fibromyalgia? It should be noted, however, that 1) the majority of women with fibromyalgia in our online samples also had other chronic pain diagnoses, and 2) the percentage of women with fibromyalgia in the paper-and-pencil studies (studies VII, X) were not as disproportionate, and similar pattern of results occurred in terms of relationship between variables and impact of psychological processes. However, this should be taken into account in future studies, by replicating these findings in more heterogenous samples of chronic pain, given that research suggests that interpersonal and affective factors are more salient in fibromyalgia than in other chronic pain diagnoses, such as osteoarthritis and rheumatoid arthritis (e.g., David et al., 2001; Parrish et al., 2008; Wolf & Davis, 2014; Zautra et al., 1999).

Finally, the mean scores of depressive symptoms in our samples were indicative of sub-clinical levels of depression (< 9), which prevents us from extrapolating these results to severely clinically depressed women with chronic pain. This may have resulted from potential effects of online recruitment, where it may have been the case that those who did not present clinical depression were disproportionately more motivated/willing to participate. Future studies should consider exploring these results in samples of participants with different levels of depression (normal vs mild vs moderate vs severe), and examine differences in the unique contribution of each psychological process and their relationship with depression and pain-related outputs. Identifying these specific effects within different clusters of depression will allow for the development of more targeted, tailored and thus effective interventions for depression in chronic pain.

Finally, interpreting these results should have in mind that the current work aimed to shed light on the “psychological” dimension of chronic pain, which does not provide the whole picture of the complexity of chronic pain. Even when we considered the “social” dimension of chronic pain, with interpersonal variables (e.g., receiving compassion from others, validation and criticism in pain), these were examined as self-reported perceptions of participants, thus inherently psychological dimensions. Likewise, the current work did not include explorations on the pathophysiology of chronic pain, nor on the potential interconnectedness between strictly genetic/biological phenomena on the one hand, and psychological dimensions (cognition, affect, behavior) on the other hand. For example, some studies suggest that symptom development can be triggered by physical stress in genetically vulnerable individuals (e.g., Schröder & Fink, 2011), which calls for a better understanding and characterization of different genotypical clusters of patients that would present different vulnerability to stress, thus potentially in need of different treatments and/or preventive measures. Previous research has shown the interplay between these different levels of analyses, suggesting, for example, that early life stress and adversity is associated with later development of chronic pain (e.g., Low & Schweinhardt, 2012) through several epigenetic mechanisms (e.g., life events impacting on the expression of genes associated to monoamine, opioid, immune, and cannabinoid systems) (Silberman et al., 2016) and key neurobiological processes that influence at different levels of chronic pain symptomatology (e.g., nociceptive processing, vulnerability to depression, stress response) (see Burke et al., 2017). Although mindfulness and compassion practices seem to impact positively on these biogenetic factors (e.g., Black & Slavich, 2016; García-Campayo et al., 2018; Klimecki et al., 2013), it is still to explore their impact in chronic pain. In fact, although insurmountable, the ultimate goal of any science is to attain a unified model/theory that encompass different levels of analyses, thus providing a complete explanation of a phenomenon. In order to help achieving that, future studies should examine the relationship between the psychological, interpersonal/social, and biogenetic mechanisms underlying psychotherapeutic changes, hence informing the development of a multilevel model of efficacy.

Overall, future studies on the unique role of psychological processes and their relationship to mood, psychopathology and pain, should follow experimental task-oriented designs to better control for variables and, thus, derive causality more robustly. For example, future studies should consider using the cold-pressor test while simultaneously testing the protective or risk factors of different psychological processes in mood and pain perception. Specifically, studies should test whether a mindfulnes versus compassion eliciting task (e.g., body scan versus loving-kindness) impacts on mood and/or pain tolerance, thus establishing which type of practice is more useful in chronic pain. A more naturalistic and ecologically valid approach could also be followed in future research. For example, future studies should consider using ecological momentary assessments with daily diary registration, in order to track the effects of different practices (e.g., mindfulness versus compassion versus mindfulness + compassion) and situational cues (e.g., interpersonal events) on mood and pain impairment. Future studies should also lean on longitudinally designed studies that help establish the trajectory from acute pain to chronic pain, by testing, for example, whether pre-dispositional patterns of psychological processes (e.g., high ruminative, self-critical, usually in autopilot, low tolerance to difficult internal experiences, highly avoidant of compassion and support from others) accurately predict whether pain will be successfully modulated, or evolve into chronic pain.

7.3. An additional note on policy making clues for better chronic pain healthcare provision

The current work contributes to a better understanding of the role of psychological processes on the development of depressive symptoms and impairment in chronic pain, and overall reiterates that emotional suffering in chronic pain results from more than simply pain-related outputs such as pain intensity, functional impairment and pain disability. In fact, even when considering psychological processes, results seem to corroborate a humanistic and holistic approach, where psychological processes not necessarily related to pain (e.g., general cognitive fusion, uncompassionate self-responding, ruminative thinking) seem to significantly impact on depression. Given the interplay between bio-psycho-social variables in chronic pain, these results highlight the pressing issue of the importance of chronic pain healthcare provision to be conducted through multi/interdisciplinary healthcare units, where clinical psychologists contribute not only with a merely pain alleviation set of strategies, but rather with a full humanistic approach that tackles psychological processes not necessarily pain-specific.

The fundamental need to provide interdisciplinary healthcare to chronic pain is acknowledged by the International Association for the Study of Pain (IASP, 2012). However, the role of psychological approaches is here pleaded as clearly focused on pain alleviation through cognitive and behavioral strategies. Although this is an undeniable useful contribution of clinical psychology in chronic pain, it seems to potentially neglect other elements that are seemingly unrelated to pain, but are in fact potentially contributing to the chronic pain symptomatology.

Also, the Declaration of Montréal (2011) clearly states that failing to providing specialized chronic pain management is a potential violation of article 5 of the UN Universal Declaration of Human Rights (1948). We argue that this should not be interpreted strictly relating to access to effective medication or medical treatment, but also considering strongly that failing to provide effective mental healthcare is also a potential violation of human rights. Surely, this calls for a larger discussion on mental healthcare provision that is beyond the scope of this dissertation. However, this also raises crucial issues regarding the scientific knowledge and academic curricula of medical and psychology students. It is argued that there is a lack of coverage of chronic pain in curricula. In Portugal, for example, a recent study found that, although 92.4% of medical students acknowledged pain as a vital sign (see Scher et al, 2018 for a current discussion on pain as a "fifth vital sign" and its implications for healthcare provision), pain was not assessed regularly, and 18.7% reported that they only assessed pain if patients complained of it (Cristóvão & Reis-Pina, 2019). This seems to disregard the clinical trajectory of pain, where health professionals only act when pain is explicitly reported by patients. This potentially leads to an overlook of the risk factors (physical and psychological) involved in the shift into chronicity.

In fact, better education of health professionals (including psychologists) on chronic pain seems to be one of the core targets for 2020 of the National Program for the Prevention and Control of Pain (2017) of the Directorate-General of Health (DGS), as well as to promote good practice standards of care. However, to our knowledge, there is no monitoring data on its implementation, nor any updated official report on the number of interdisciplinary units that include clinical psychologists as part and parcel of healthcare provision in specialized pain medicine units. In order to have a closer look into the actual provision of mental health in portuguese pain units, the research team has contacted the current President of the Chronic Pain Competence of the Portuguese Medical Association (OM), which duly informed that a census was failed to be conducted on this subject. To our knowledge, the most recent systematized and official data on pain units in Portugal is the 2010 DGS final report, where only 36.5% (n = 19) of the surveyed healthcare units in the national healthcare system reported having a multidisciplinary team. However, a more encouraging picture is reported by the Association for the Study of Pain (APED) in its "Atlas da Dor 2019", where 69 pain units where identified nationwide, of which 53 (76.8%) included a clinical psychologist. Thus, it seems that the biopsychosocial model of chronic pain is growingly being translated into clinical practice.

Nevertheless, a more widespread inclusion of clinical psychology in pain management is needed in order to successfully provide clinical effective solutions to chronic pain. According to the results from the current work, psychotherapy with chronic pain should be not exclusively focused on pain-related phenomena, but also on overall psychological processes that may contribute to depression beyond pain. Also, these results seem to point out that when considering social support and social relationships, intrapersonal factors should be taken into account, such as perceptions of criticism, perceptions of others engaging and acting compassionately, as well as personal fears of the meaning and consequences of receiving compassion from others. These results advise for psychosocial interventions to target not only instrumental support, but also threat-focused personal challenges in perceiving/interpreting and receiving support and care from others. These results specifically highlight the negative role of getting entangled with internal experiences (thoughts and emotions, not necessarily related to pain) in depressive symptoms, as well as the protective role of self-responding to difficulties compassionately. In fact, these results suggest that cultivating self-compassion, in addition to awareness and openness, through compassion-based practices might be useful in chronic pain management, particularly when the focus of therapy is the fostering of valued activities, thus decreasing avoidant-focused action.

7.4. Conclusions and take-home messages: an overview of findings in an integrated model.

The current work, through its combined empirical studies, aimed to contribute to the illumination of the role of psychological factors in chronic pain. Specifically, the knowledge that results from the body of work here developed contributes to chronic pain literature on different levels: 1) it helped the conduction of more accurate assessment of psychological processes that seemed to be key in chronic pain; 2) it examined patterns of associations between relevant psychological processes, pain outputs and depressive symptoms; 3) it explored the predictive role of two key psychological processes (cognitive fusion and self-compassion) on the trajectory of depressive symptoms; 4) it contributed to an in-depth discussion on the role of self-compassion in chronic pain management, particularly the usefulness of adding explicit (self)compassionate exercises in ACT for chronic pain.

Hopefully, this scientific endeavor will serve as a reference point for future research in chronic pain, and have the potential to inform policy making decisions around chronic pain management. Main contributions of the current thesis include:

- ✓ Psychometric validation of a measure of valued living (Valuing Questionnaire) that overcomes the limitations of existing measures, and development of a new measure of validation and criticism by others (Perceived Validation and Criticism in Pain Questionnaire), which will allow future research to conduct more accurate studies on the intrapersonal processes underlying interpersonal relationships in the context of chronic pain.

✓ Clarifying the unique and interconnected relationship of conceptually close psychological processes, pain outputs and depressive symptoms, contributing to a better knowledge not only on a vast array of processes (perceptions of criticism, validation, compassion, self-compassion, mindful awareness, safeness, uncompassionate self-responding, fears of compassion, acceptance, cognitive fusion, rumination, valued living), but on their potential contribution to depression beyond pain-specific symptomatology.

✓ Contributing to better understand the trajectory of development of depressive symptoms in chronic pain, particularly on the risk-producing role of cognitive fusion (which seems to be a particularly relevant process, given that it is hypothesized to underlay different nefarious cognitive processes) and protective role of self-compassion (which seems to be especially relevant as a buffer of the pervasive impact of pain-related functional impairment).

✓ The development of an integrated multicomponent psychological intervention for chronic pain management and overall better mental health (COMP.ACT), which is potentially cost-effective due to its group deliverance format. This not only contributed in practical terms (as it developed a program standardized in a workbook that can be used and implemented by trained mental healthcare professionals working in pain units nationwide), but also added to an ongoing conceptual discussion on the place of (self)compassion in the PFM, and in ACT for chronic pain. Although more research is needed to reach definite conclusions - particularly regarding which clusters of patients would specifically benefit from adding explicit (self)compassion exercises in ACT -, research overall seems to corroborate the usefulness of including (self)compassionate practices in ACT for chronic pain, particularly when aiming to boost commitment to engage in valued activities.

In order to summarize the findings on the relationship between psychological processes, pain-related outcomes and depression, a visual schematic representation of these relationships was created (see Figure 3).

Overall, results suggest the following take-home messages:

1. The vulnerability to experience depressive symptoms in chronic pain is not solely due to the intensity of pain itself, nor the functional impairment and disability created by pain, but rather from the process of getting entangled with thoughts, emotions, sensations, urges, memories (overall internal experiences) – including internal experiences that are not necessarily related to pain -, instead of being able to distance oneself from those experiences, and looking into them as transient internal experiences.
2. Nonetheless, this toxic impact of getting entangled with internal experiences on depression can be buffered when a person is able to self-relate in a manner that is soothing, calming, kind and overall self-compassionate. In fact, being able to be self-compassionate seems to also buffer the impact of pain impairment on depressive symptoms, which suggested that it can be a useful tool to include in chronic pain management.
3. Indeed, self-compassion seems to have a powerful impact on depression, not only as at a “mental” level (associated to feelings of safeness and positive affect), but also at a behavioral level, given that self-compassion seems to partly relate to less symptoms of depression through the engagement with valued activities. So, it seems that being self-compassionate is also a useful tool for activating behavior that is valued, thus leading to less symptoms of depression.

4. Also, self-compassion seems to be a more relevant process than mindful awareness in chronic pain. Although, nonetheless, mindful awareness seems to relate to less depressive symptoms in a potentially sequential way: by leading to less ruminative thinking, which in turn may reduce internal obstructions to act accordingly to personal values.
5. Self-compassion also seems to be a relevant process when it comes to interpersonal relationships, given that it seems to be related to less fears of receiving compassion from others, which in turn relates to more feelings of social safeness, and putatively a depletion of threat-focused processes (which are a well-known vulnerability factor in fear-avoidance approaches to chronic pain aetiology).
6. In fact, perceptions of interpersonal processes seem to be important factors in chronic pain, particularly related to functional impairment. It seems that perceiving others as critical is associated to more functional impairment, beyond affect, sociodemographic and medical-related variables, as well as beyond others engaging and acting compassionately towards oneself.
7. Adding a (self)compassion component in ACT for chronic pain seems to result in an acceptable and useful chronic pain management and mental health program. Adding explicit (self)compassionate exercises seems to be especially beneficial when the therapeutic goal is to promote valued action, which is a core goal in chronic pain management (i.e., reduce fear-avoidant inactivity, and promote valued activity engagement).

We hope that this work, and the empirical data it provides, will help advance the field of pain psychology by providing not only new information, but also reflexive cues on future directions. Hopefully, this will help both researchers and clinicians working with chronic pain patients to deliver more effective and humanistic healthcare solutions, particularly to chronic pain patients who are experiencing psychopathological symptoms such as depression. Although the nature of scientific work is one where more questions arise throughout the scientific process than the ones antecipated (and this work is not an exception of that), we hope these data and reflections provide new pieces for the understanding of the role of psychological factors in chronic pain, as well as potential tools to help chronic pain patients live a more fulfilling and meaningful life.

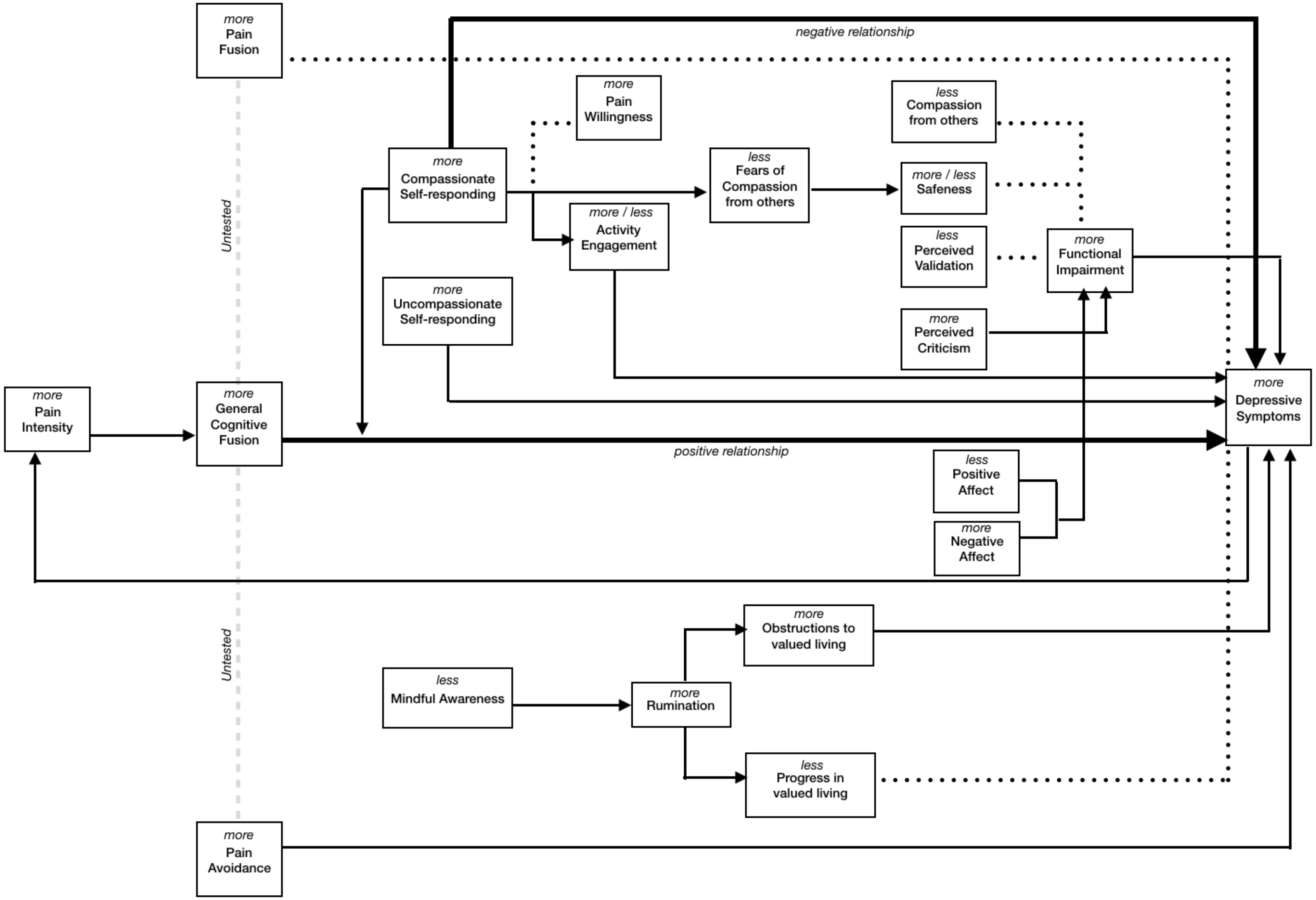

Figure 3. Integrated model of the relationship between pain, psychological symptoms and depressive symptoms.
Note. These relationships are potentially circular. Dotted lines represent non-significant but controlled relationships. Bolder arrows (from general cognitive fusion, and compassionate self-responding) represent temporal relationships.

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Appendix

COMP.ACT

Programa de intervenção psicológica para a dor crónica

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David Gillanders

CINEICC
Centro de Investigação em
Neuropsicologia e Intervenção Cognitivo-Comportamental

COMP.ACT

PROGRAMA DE INTERVENÇÃO PSICOLÓGICA
PARA A DOR CRÓNICA

COMP.ACT
Intervenção em dor crónica

Título: COMP.ACT - Programa de Intervenção
Psicológica para a Dor Crónica

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COMPETE

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Fundo Europeu de Desenvolvimento Regional

COMP.ACT

PROGRAMA DE INTERVENÇÃO PSICOLÓGICA PARA A DOR CRÓNICA

Sérgio Andrade Carvalho
Paula Castilho
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COMP.ACT
Intervenção em dor crónica

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VISÃO GERAL DO PROGRAMA

Sessão	Objectivos	Conteúdos	Prática Semanal
1 **INTRODUÇÃO AO COMP.ACT** o controlo como problema	*- Apresentação da estrutura, regras e funcionamento das sessões;* *- Desesperança Criativa;* *- Introdução ao* mindfulness.	- Meditação de boas vindas; - Regras e funcionamento das sessões; - Apresentação; - Desesperança criativa; - *Mindfulness* focado na respiração.	- Prática diária *mindfulness* focado na respiração; - Registo das práticas.
2 **O CORPO COMO PRESENTE** promoção de consciência corporal através do *mindfulness*	*- Experienciar a natureza multidimensional da dor;* *- Promoção de consciência corporal e das diversas componentes associadas à experiência da dor através do* mindfulness.	- Exercício breve de *mindfulness* (*check-in*); - Partilha da semana; - A dor como fenómeno multidimensional; - *Body-scan: mindfulness* focado no corpo.	- Prática diária de *body-scan;* - Registo das práticas; - Preenchimento da **Ficha de Atividade 3** (“Registo da mente”)
3 **COMPAIXÃO I** do autocriticismo ao autocuidado	*- Compreender a relação entre corpo e mente;* *- Breve introdução à (auto) compaixão como alternativa ao (auto)criticismo.*	- Respiração Tranquila (SRB); - Corpo e Mente: uma divisão artificial; - Do criticismo à compaixão: a compaixão no corpo; - Amor-Bondade (*Loving-Kindness* alterado I)	- Praticar alternadamente *body-scan* e *loving--kindness;* - Registo das práticas; - Registar na **Ficha de Atividade 4** (“o que diria a alguém que sofre como eu”); - Registo na **Ficha de atividade 5** (“os 10 dedos da gratidão”).
4 **COMPAIXÃO II** o corpo como âncora da autocompaixão	*- Continuação da promoção da auto-compaixão;* *- Aprender a recorrer ao corpo como porto seguro e espaço de tranquilidade, calor e afeto.*	- Respiração Tranquila (SRB) com um *twist* (“por que estou aqui”); - Toque tranquilizador; - Suavizar, Tranquilizar e Permitir (*soften, soothe and allow*).	- Praticar alternadamente *body-scan* e suavizar, tranquilizar e permitir; - Registo das práticas.

Sessão	Objectivos	Conteúdos	Prática Semanal
5 ACEITAÇÃO **há mais para aceitar do que apenas a dor**	*- Solidificar uma postura de abertura à experiência;* *- Promover a disponibilidade* (willingness).	- *Body-scan* (abreviado); - Abertura à experiência: descrever vs avaliar; - Aceitação das emoções: breve exercício.	- Praticar alternadamente *body-scan* e *mindfulness* focado na respiração; - Preencher a **Ficha de Atividade 7** (“de que tenho desistido”)
6 (RE)DESCOBRIR VALORES **em busca de uma vida valorizada**	*- Identificação de valores de vida e promoção de ação comprometida.*	- *Mindfulness* do momento presente: o que me traz aqui? - Introdução aos valores; - Meditação/Reflexão sobre os valores; - Preenchimento da **Ficha “O que é importante para mim”**.	- Prática diária de *body-scan;* - Escolher conscientemente (com propósito) fazer uma ação que reflita os seus valores em pelo menos 1 área da sua vida, pelo menos 1x por dia.
7 AGIR AGORA **dos valores ao compromisso com a ação**	*- Promoção do compromisso com a ação guiada pelos valores de vida;* *- Articulação das competências anteriormente desenvolvidas (disponibilidade, aceitação, consciência do aqui-e-agora) com o compromisso com a ação valorizada.*	- *Mindfulness* do momento presente: Eu com 90 anos; - Introdução ao compromisso com a ação valorizada; - Quatro passos para a ação comprometida; - Exercício *Mindfulness*: *body-scan* abreviado.	- Prática diária de *body-scan;* - Realizar as ações formuladas na **Ficha de Atividades 10** (“quatro passos para a ação comprometida”) e registar obstáculos sentidos, assim como estratégias utilizadas para lidar com esses obstáculos.
8 CONTINUAR DEPOIS DO COMP. ACT **síntese do programa**	*- Reflexão partilhada das aprendizagens;* *- Kit vida plena: importância de ações guiadas pelos valores* (embracing life).	- Exercício “o poço no campo”; - Exercício “Obstáculos no rio: antes *vs* agora”; - Gratidão: o elemento-chave para abraçar a vida; - Kit “Vida Plena”; - *Body-scan* compassivo; - *Feedback* COMP.ACT.	- Kit “vida plena”.

1

INTRODUÇÃO AO COMP.ACT

o controlo como problema

Meditação de boas vindas

A primeira sessão do COMP.ACT deverá iniciar com uma breve meditação do momento presente. Iniciar o programa com uma breve meditação tem dois objetivos principais:

1) instalar o tom e a natureza experiencial do treino atencional do programa COMP.ACT, assim como

2) promover um contacto inicial com o momento presente, trazendo as participantes para a sessão.

"Boa tarde a todas e bem-vindas à primeira sessão do programa COMP.ACT. Vamos dar inicio a este nosso caminho em conjunto, e, como terão oportunidade de ver no decorrer do programa, todas as sessões vão começar, antes de qualquer outra atividade, com um exercício experiencial de meditação. Vamos ter oportunidade de falar um pouco sobre a função deste tipo de exercícios. Mas neste momento convido-vos apenas a seguir as minhas instruções. O objetivo é simplesmente tentarem seguir, o melhor que conseguirem, as minhas instruções. Desta forma, daremos inicio ao programa, deixando lá fora tudo o que traziam dentro de vós, e simplesmente estando aqui, no presente. Pode ser?"

Agora que estamos fisicamente presentes, a meditação que se segue vai ajudar-nos a trazer a nossa mente para o presente. Por favor, sente-se numa posição confortável para si, da forma que mais gostar, o mais confortável possível, e deixe que os seus olhos se fechem, parcialmente ou totalmente. E vamos começar por simplesmente notar os sons que estão presentes. Simplesmente estarmos sentadas a notar os sons. O objetivo não é esforçar-se por os ouvir, mas sim simplesmente deixar que os sons vão ter consigo. E simplesmente notar (pausa 10s). Agora, tente simplesmente notar o seu corpo, observar com a sua mente o lugar que o seu corpo ocupa na sala. Talvez possa esboçar um ligeiro sorriso ou simplesmente congratular-se por estar aqui e sentir-se bem-vinda. Como se dissesse “bem-vinda” a uma amiga querida (pausa 10s). E agora, tente notar o seu corpo, as suas sensações corporais. Simplesmente note as sensações: note as sensações agradáveis (pausa), note as sensações desagradáveis (pausa), ou simplesmente as sensações neutras, do seu corpo a funcionar (pausa10s). E tente notar alguma inquietação que possa existir, no seu corpo ou na sua mente. E veja se consegue, tão bem quanto consiga, suavizar essa inquietação que possa estar presente (pausa 10s). E agora tente apreciar e agradecer todo o esforço e toda a intenção de cuidar de si que a trouxe aqui a este programa. Tente ligar-se a esse sentimento de querer cuidar de si (pausa 10). E agora, quando se sentir preparada, e gentilmente, abrindo os seus olhos”.

Notas:

Introdução do COMP.ACT – regras e funcionamento das sessões

O terapeuta começa por fazer uma breve introdução ao COMP.ACT, ao horário e periodicidade das sessões, regras de funcionamento do programa, e estrutura das sessões.

"Habitualmente após estes pequenos exercícios, teremos oportunidade de partilhar como foi a experiência. No entanto, este será o único em que não o faremos. Vamos dar início à sessão propriamente dita.

Como vos foi informado ao logo do processo de avaliação, este é um programa de intervenção psicológica para a dor crónica. Este programa foi especificamente desenhado por uma equipa de psicólogos e psiquiatras, num projeto em parceria entre a FPCEUC e a Universidade de Edimburgo. A necessidade de construir um programa de intervenção psicológica para a dor crónica surge a partir de: 1) a investigação internacional, que de forma inequívoca tem mostrado a relação entre a dor e o sofrimento psicológico (e, muito importante, a constatação de que a forma como lidamos com a dor e com os nossos pensamentos e emoções influenciam a forma como nos afastamos progressivamente de uma vida valorizada com significado e com satisfação), e portanto a necessidade cada vez mais incontestável de haver uma resposta ao nível da psicologia e da psicoterapia para a dor crónica, no sentido das pessoas terem uma vida mais plena, mais satisfatória e com mais qualidade de vida e bem/estar; 2) e, por outro lado, a constatação de que, apesar de haver cada vez mais respostas de saúde a incluir a psicológica na intervenção na dor crónica, o que é facto é que ainda são insuficientes ou, em alguns serviços, inexistentes. O COMP.ACT pretende ser um contributo nesse sentido. Especificamente, o COMP.ACT foi desenhado para ter 8 sessões, cada sessão semanal de aproximadamente 2h, nas quais vamos aprender novas formas de lidar não só com a nossa dor, mas também com a nossa mente e corpo, com as nossas sensações corporais, emoções e sentimentos, no sentido de uma vida mais plena, mais satisfatória, e com mais bem-estar físico, mas também psicológico, social, emocional. Se tivéssemos que resumir o objetivo principal do COMP.ACT, seria o de nos ajudar a ter uma vida guiada/conduzida por nós (pelas nossas motivações intrinsecamente genuínas) e não pela nossa dor. Vamos ter oportunidade de explorar isto ao longo do programa, mas fiquem com esta ideia: o COMP.ACT pretende ajudar-vos a ganhar mais liberdade sobre a vossa vida, a agirem de acordo com o que é importante para vós, para que a vossa vida seja mais do que a vossa dor. No fundo, que tenham uma vida plena APESAR da vossa dor e sofrimento. É importante dizer-vos que o programa foi desenhado seguindo uma lógica, segundo a qual todas as sessões estão interligadas e, regra geral, sessões seguintes dependem de aprendizagens das sessões anteriores. Portanto, seria mesmo importante tentarem vir a todas as sessões para que possam usufruir de todo o programa. Outro aspeto importante é a estrutura das sessões. Todas as sessões terão essencialmente a mesma estrutura: 1) iniciaremos com um breve exercício experiencial de meditação, para nos conectarmos ao momento presente. Ao longo do programa vamos aprender várias coisas sobre o funcionamento da nossa mente, nomeadamente a dificuldade que ela tem em estar sossegada: isso é normal, a nossa mente está programada para saltitar e vaguear. Vamos explorar isto mais à frente. Estes exercícios no inicio de cada sessão vão ajudar a trazer-nos para o momento presente, para a sessão e para o que nos motiva (porque estamos aqui?) e e verdadeiramente importante; 2) depois vai haver um espaço breve que será uma espécie de momento de partilha das vossas dificuldades ou reflexões ao longo da semana. Nesta parte da sessão poderemos ver em conjunto formas de potenciar as vossas práticas entre sessões, o que foi difícil implementar e porquê, assim como outros aspetos que vos pareçam relevantes ; 3) depois cada sessão abordará um tema específico sobre a forma como a nossa mente funciona, sobre a forma como estão interligadas a nossa dor (corpo) e a nossa mente (os nossos pensamentos, as nossas emoções, sentimentos); 4) depois teremos novamente uma secção de exercícios experienciais. Este é um aspeto importante: o COMP.ACT é um programa fundamentalmente experiencial, i.e., está desenhado para que nós tenhamos a experiência vivida dos temas abordados, porque as nossas aprendizagens são mais sólidas quando nós próprios experimentamos e sentimos o que está em casa. É claro que todos os aspetos deste programa são voluntários, e não serão obrigadas a fazer todos os exercícios. Mas, tal como vir a todas as sessões, também a prática dos exercícios vai influenciar o beneficio que retirarão do programa; 5) ao aproximarmo-nos do final da sessão, teremos um breve sumário dos tópicos abordados, e 6) a apresentação da práticas para casa Todas as semanas terão uma tarefa para casa. As competências que o COMP.ACT promove implicam o seu treino e prática diária e comprometida. Algumas dessas competências implicam treinar o nosso cérebro como se ele fosse um músculo. Da mesma forma que não basta ir uma vez por semana ao ginásio para desenvolver os músculos do corpo, nem basta tomarmos um medicamento uma vez para ele ter efeito, também não basta a nossa sessão de 2h semanal para exercitarmos os músculos da nossa mente. Esta tarefa para casa será, de um modo geral, a prática diária dos exercícios (ou semelhantes) experimentados durante a sessão. Por fim, é importante que cheguem no máximo 15minutos depois da hora de inicio, porque, como vos disse, começaremos as sessões com exercícios experienciais que implicam a sua não interrupção."

Notas:

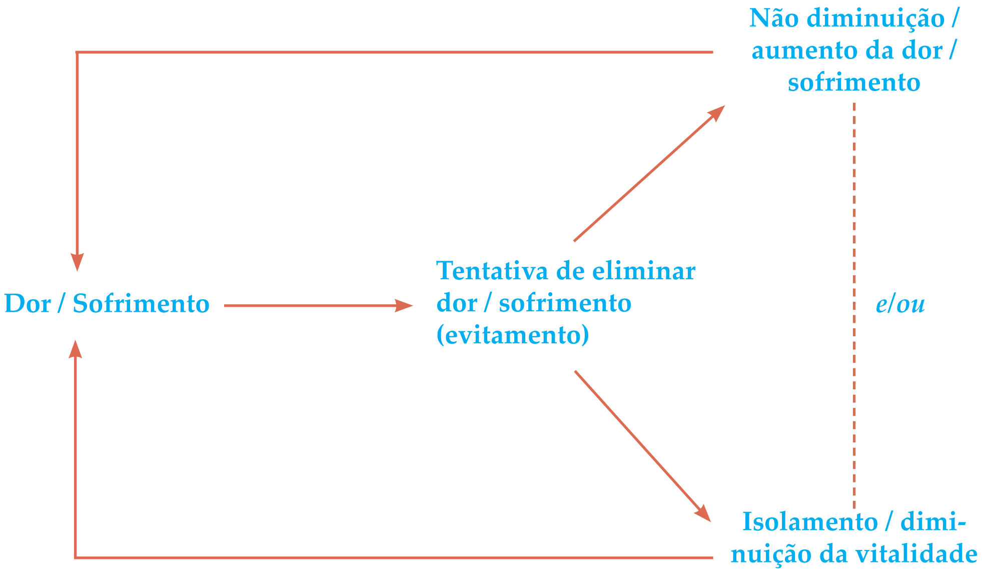
Apresentação

Posteriormente, deverá haver um espaço no qual as participantes se apresentam, partilham a sua experiência de vivência da dor, estratégias que têm utilizado para lidar com a dor, resultados obtidos, obstáculos, e expetativas em relação ao COMP.ACT. Este é um espaço fundamental para o terapeuta aceder às histórias individuais das participantes, a partir das quais poderá utilizar, de forma eticamente responsável, exemplos no decorrer dos exercícios, para que as metáforas possam ser exploradas de forma tão específica e idiossincrática quanto possível, e para que a descoberta guiada nos momentos de debate e partilha possa ser terapeuticamente útil. Por se tratar de uma intervenção grupal, a individualização dos debates e partilhas deve ser evitada, ainda que seja importante o terapeuta apreender a experiência comum das participantes, e trazer ao debate e partilha sempre que for adequado e clinicamente benéfico. Particularmente, é fundamental neste espaço a recolha de informação sobre as estratégias preferenciais de lidar com a dor, assim como com as experiências internas associadas (ou não) à experiência da dor (e.g. pensamentos, regras, cognições antecipatórias, catastrofização, crenças acerca das emoções, IMPORTANTE: qual a atitude em relação à dor? Criticam-se?). O papel do terapeuta será o de escutar ativamente as participantes, normalizar e despatologizar as experiências partilhadas, e, de forma introdutória, promover o sentimento partilhado de humanidade comum. É importante que o terapeuta encontre e promova na partilha das participantes, nomeadamente na partilha sobre as estratégias e tentativas utilizadas para controlar/diminuir a dor, oportunidades para reconhecer o que têm perdido de importante na sua vida durante aquela luta: que atividades gostavam de realizar e que deixaram de fazer, que impacto a luta contra a dor tem tido nas suas relações interpessoais (com companheiros/as, com filhos/as, etc), no fundo quais têm sido os custos das tentativas de controlo da dor (e.g., diminuir a sua intensidade no momento em que a dor é sentida, o evitamento de atividades por forma a controlar a sua ocorrência futura). Este aspeto é fundamental, quer para servir de introdução à desesperança criativa promovida nesta sessão, quer porque apresenta as primeiras peças que serão fundamentais em sessões futuras sobre os valores como agentes motivadores da ação comprometida.

Desesperança criativa
Parte I: a mente como máquina de resolução de problemas

A primeira parte da desesperança criativa deverá ser a promoção da normalização e despatologização do evitamento experiencial enquanto produto de uma mente que evoluiu para resolver problemas. Aqui, as tentativas de controlar e diminuir a dor e as experiências internas associadas devem ser normalizadas, para que na segunda parte seja promovida a desesperança criativa propriamente dita. Sempre que adequado, iniciar uma linguagem na qual a mente é apresentada de forma separada do eu (“a nossa mente diz, a nossa mente faz”), no sentido de ir promovendo (de forma informal) a desfusão e diminuir o eu conceptualizado.

“Reparem que um dos aspetos que esteve presente em quase todos os vossos relatos foi a tentativa, por vezes incessante, de diminuírem a vossa dor, e em alguns casos de não sentir um conjunto de coisas: por exemplo, não pensarem em [introduzir exemplos], ou não sentirem [introduzir exemplos]. Isso é normal, faz parte de uma das nossas programações enquanto seres humanos: a natureza da mente está construída de forma a aproximar-nos do que nos dá prazer e sensações positivas, e a afastar-nos do que nos causa dor, sofrimento e sensações negativas. E de facto a nossa mente é ótima a resolver problemas. Encara como “problema” tudo o que é indesejado, como por exemplo a dor, ou um pensamento negativo ou uma emoção dolorosa. Imediatamente, a nossa mente assume que se algo é indesejado, então devemos fazer tudo para nos vermos livres daquilo! Isto é uma competência fantástica para resolver problemas externos a nós, por exemplo se estiver frio, vestimos um casaco; se um carro vier contra nós, fugimos. E como isto funciona tão bem com problemas externos, a nossa mente acha que deve aplicar a mesma estratégia a problemas internos: se nos sentimos ansiosos ou tristes, a nossa mente põe mãos à obra e tenta livrar-se dessas emoções. E faz a mesma coisa quando temos sensações físicas desagradáveis (por exemplo, quando temos dor, pressão, repuxar, formigueiro, espasmo): tenta a todo o custo ver-se livre daquela sensação física. O que é compreensível, porque causam sofrimento e, como já vimos, não estamos programados para estar com o sofrimento. Infelizmente, na maior parte das vezes as nossas tentativas de nos vermos livres da dor e dos pensamentos e emoções associados não são eficazes, não diminuem essas experiências (muitas vezes até as aumentam, curiosamente), e no percurso acabam por dar origem a mais sofrimento por nos afastarmos do que é verdadeiramente importante para nós: como vimos, deixamos totalmente de fazer atividades que são importantes para nós (ora porque temos medo de ficar com mais dor, ora porque nos sentimos mais tristes e em baixo e a nossa mente nos diz que não vale a pena e que vamos ser uma má companhia) [inserir exemplos a partir da partilha], e vamos ficando progressivamente mais isolados e mais afastados da vida que gostaríamos de ter e que nos faria sentir vivos e felizes.“



Desesperança criativa
Parte II: o controlo como problema e o contacto com o presente como solução

Na segunda parte da promoção de desesperança criativa, deve ser introduzida a ideia de utilidade/funcionalidade (workability), e promovida a desesperança criativa propriamente dita através do confronto com a agenda do controlo. Por fim, o contacto com o momento presente e com a experiência momento-a-momento deve ser apresentado como solução alternativa às tentativas inúteis (unworkable) de controlar a experiência interna.

"Este funcionamento está presente em todos nós e não é especifico da dor crónica. Tem a ver com a forma como a nossa mente está programada para funcionar. E nós no COMP.ACT não queremos dizer que é errado ou certo tentarmos controlar a nossa dor e as nossas experiências internas. O que estamos a propor é considerarem o seguinte: fechem os vossos olhos por uns minutos. Pensem na forma como têm lidado com a vossa dor. E respondam para vós próprias às seguintes questões: AS ESTRATÉGIAS QUE TÊM USADO PARA SE VEREM LIVRES DA VOSSA DOR TEM FUNCIONADO? TÊM CONSEGUIDO CONTROLAR A VOSSA DOR? Provavelmente não, senão não estariam aqui. E, talvez ainda mais importante, respondam às seguintes questões: E O QUE ME TEM CUSTADO ESSAS TENTATIVAS DE DIMINUIÇÃO DA DOR? QUE COISAS TENHO PERDIDO NA MINHA VIDA NESTA LUTA CONTRA A MINHA DOR? É que este é um aspeto importante: o vosso sofrimento não está circunscrito à dor, mas também ao que têm perdido na vossa vida devido às tentativas de acabar com a dor."

Notas:

Desesperança criativa
Parte III: exercício "Como lido com a minha dor" (ficha de atividade 2)

As participantes deverão preencher a ficha de atividade 2 "como lido com a minha dor". De seguida, deverá ser aberta uma breve discussão, na qual o/a terapeuta/facilitador/a irá promover, através de descoberta guiada, o insight de que as tentativas não só não têm funcionado a médio-longo prazo, como têm comprometido e afastado as participantes de uma vida valorizada, plena e satisfatória. Este espaço deverá servir, portanto, para o terapeuta ir introduzindo a proposta de uma nova forma de nos relacionarmos com as nossas sensações físicas e emoções, a partir da qual é possível escolher viver uma vida valorizada APESAR da dor.

"Não estamos a propor que deixem de tentar aliviar a vossa dor e o vosso sofrimento. Se as vossas estratégias funcionarem e não vos empurrarem para uma vida de isolamento e longe das coisas que valorizam, continuem. Mas o que temos visto é que têm tentado muitas coisas, algumas de vocês durante muitos anos, têm dado o vosso melhor e o que é humanamente possível, e ainda assim não funcionam a longo prazo e ainda por cima com vários custos, sacrificando o que valorizam. E um dos aspetos que vamos ver com o programa COMP.ACT é que a forma como nos relacionamos com a nossa dor, para além de influenciar a própria intensidade e manifestação da dor, também influencia o impacto que a dor tem na nossa vida (relação com os outros e connosco próprios). Pensem no seguinte: na vossa experiência, quando ficam muito tempo a pensar na dor, presas àquela sensação física [introduzir exemplos fornecidos nas partilhas], a dor diminui ou aumenta? [Breve discussão]. De facto, como vamos ver na sessão seguinte, a dor é um fenómeno muito complexo que engloba vários aspetos da nossa experiência, inclusivamente aspetos cognitivos (o que pensamos sobre a sensação física) e emocionais (as emoções que daí surgem). E muita da nossa energia e esforço está centrada em vermo-nos livres da nossa dor, o que paradoxalmente faz com que a dor comande a nossa vida e não o contrário! O que propomos aqui com o COMP.ACT é uma alternativa ou, se quiserem, um complemento: E SE HOUVER UMA FORMA DE TEREM UMA VIDA VALORIZADA, PLENA E COM VITALIDADE, MESMO SEM CONSEGUIREM CONTROLAR A VOSSA DOR? [Breve discussão]. Não estamos, de todo, a propor que "aguentem" a dor. O que propomos é que desenvolvam uma nova forma de se relacionarem com o vosso corpo, com as sensações físicas desse corpo, assim como com a experiência interna que nele existem (por exemplo, pensamentos negativos, emoções difíceis, etc). E essa nova forma passa por exercitarmos a nossa atenção, com curiosidade e com abertura para o que esta é, sem a tentar modificar ou alterar.”

Notas:

Introdução ao *Mindfulness*

Este exercício pretende introduzir o mindfulness como ferramenta de promoção do contacto com o momento presente, e como forma de promover a atenção plena para a experiência tal como ela e, e através da prática desenvolver uma maior consciência corporal. O primeiro exercício de mindfulness do programa deve ser focado na respiração, e as instruções devem ter como dois pilares essenciais: 1) trazer a atenção para as sensações corporais da respiração (a respiração como algo presente, corpóreo e automático, e não forçado e cognitivo); 2) normalizar as experiências internas que surjam durante o exercício como manifestação da programação da mente ("o macaco a saltar de galho em galho"). No final do exercício, é fundamental que seja aberto um espaço de partilha, no qual as participantes poderão discutir o que descobriram durante o exercício. O papel do terapeuta é o de escutar ativamente e guiar a discussão no sentido de promover as seguintes conclusões: 1) a atenção altera a experiência (quando a nossa mente está fusionada com pensamentos e preocupações, deixamos de notar o corpo); 2) a mente naturalmente (ou seja, involuntária) deambula (o objetivo do exercício não é a mente "parar", nem relaxar, mas sim notar a experiência no momento presente tal como ela é); 3) é possível ter um pensamento ou emoção e simplesmente notar, sem ter que lhe reagir. Durante a partilha, é importante salientar a ideia de que o objetivo não é relaxar, mas sim notar a experiência. E, nesse sentido, o terapeuta deve reforçar todos os momentos em que a participante partilha ter notado a mente distraída e a vaguear, ancorando a atenção na respiração.

"Quantas de vós já tiveram a experiência de ir a conduzir, chegar ao destino e não ter noção nenhuma do percurso que fizeram? Isso acontece muito e em particular quando fazemos percursos que são habituais/rotineiros. Que já conhecemos de cor. A essa experiência vamos chamar de estar em "piloto automático". Ou seja, estamos a agir sem grande consciência. Isso pode acontecer em inúmeras situações rotineiras do dia-a-dia: lavamos os dentes a pensar num episódio que aconteceu há minutos ou no dia anterior, tomamos banho a pensar nas tarefas que temos para aquele dia, etc. Como se o nosso corpo já soubesse de cor o que fazer, deixando que a mente ande por outras paragens! Têm ideia de onde habitualmente anda a vossa mente quando o corpo está em piloto automático? [discussão breve]. Pois, habitualmente a nossa mente está a tentar resolver problemas: alguns que já passaram e não precisam de resolução, outros do futuro e que ainda não existem. Muito vezes é o que acontece: a nossa mente tem um funcionamento por defeito que é o de pensar e pensar, e avaliar, e julgar, e no fundo tentar resolver problemas. O que faz com que raramente estejamos verdadeiramente no presente.

De facto, a nossa mente está constantemente no modo de resolução de problemas: sempre alerta e à procura de soluções. E reparem que, se estivermos sempre com este modo de resolução de problemas ativado, daqui resultam duas coisas: 1) vivemos constantemente ou no passado (por exemplo, a pensar em situações em que tivemos este mesmo problema e como resolvemos) ou no futuro (por exemplo, a antecipar consequências, a durabilidade daquela dor "vou ficar sempre assim com esta dor insuportável!", o impacto na nossa vida, etc) [aqui devem ser introduzidos exemplos a partir das discussões], e 2) ao vivermos numa espécie de máquina do tempo, em que estamos ora no passado, ora no futuro, e nunca no presente, acabamos por ficar totalmente absorvidos pelas tentativas de diminuir a dor, e perdemos muitas das coisas boas e que são verdadeiramente importantes para nós que estão a acontecer no momento presente. A boa notícia é que há formas de treinarmos a nossa capacidade de estar no momento presente, ou seja, estar com a nossa experiência no presente, qualquer que seja essa experiência. Isto implica treinarmos a nossa atenção. Treinarmos a nossa atenção para estar no presente é importantíssimo porque vai permitir que 1) a nossa mente esteja menos tempo a vaguear (ora no passado, ora no futuro), e 2) e, ao estar no presente, estamos mais conscientes e, portanto, capazes de regular as nossas emoções. E neste sentido, gostaria de vos propor um exercício. Pode ser?

Convido-a a sentar-se numa posição confortável, com as costas esticadas, mas não tensas. Pode colocar as suas mãos em cima do seu colo, e tenha os pés bem assentes no chão. E agora feche os olhos, ou, se for mais confortável, fixe a sua atenção num ponto. E traga a sua atenção para a sua respiração. E observe-a como se fossem um cientista curioso que está a contactar pela primeira vez com essa coisa chamada respiração (pausa 10s). Note o ar a entrar pelas suas narinas. Note as sensações do ar a entrar e a sair pelas suas narinas. Simplesmente note (pausa 5s). Por exemplo, note a temperatura do ar quando entra (ligeiramente mais fresco) e quando sai (ligeiramente mais quente) (pausa 10s). Note como o abdómen aumenta durante a inspiração, e diminui durante a expiração. Simplesmente note esse movimento (pausa 5s). Não precisa de forçar a respiração, pois o seu corpo é sábio e sabe respirar sem as suas instruções, sem que force a respiração. Aqui o objetivo é simplesmente notar a respiração (pausa 10s). Note também como o seu peito enche quando inspira, e como fica mais vazio quando expira (pausa 5s). E note os seus ombros: como sobem ligeiramente na inspiração, e diminuem ligeiramente na expiração. Simplesmente note (pausa 15s). E durante o exercício, é possível que a sua mente comece a dizer coisas: é possível que apareçam imagens, ou pensamentos sobre o que tem para fazer depois desta prática, preocupações, tarefas por terminar. Ou até a sua mente pode comentar e dizer-lhe coisas sobre este exercício, questionar-se qual o objetivo, dizer-lhe que está a perder tempo, por exemplo. É normal. É só a sua mente a fazer o que todas as mentes estão programadas para fazer: ou seja, questionar e resolver problemas. Simplesmente note isso - como se dissesse um "olá!" a alguém a passar na rua -, e gentilmente volte a trazer a sua atenção para a respiração. Para as sensações da respiração no corpo: nas narinas (5s), no abdómen (5s), no peito (5s), nos ombros (5s). E quaisquer que sejam os pensamentos, imagens, memórias, preocupações que surjam durante o exercício, simplesmente note isso e volte gentilmente para a respiração. Sempre que a sua mente a distrair, não há problema, simplesmente volta a trazer a atenção para a sua respiração. Se sentir aborrecimento, ansiedade, frustração, simplesmente note isso, reconheça que esses sentimentos estão presentes, e gentilmente volte à respiração (pausa 15s). E quando estiver preparada, gentilmente abra os olhos terminando assim a prática."

Notas:

Partilha

A partilha deverá guiar a experiência de que: 1) a atenção altera a experiência (quando a nossa mente está fusionada com pensamentos e preocupações, deixamos de notar o corpo); 2) a mente naturalmente (ou seja, involuntariamente) deambula (o objetivo do exercício não é a mente "parar", nem relaxar, mas sim notar a experiência no momento presente tal como ela é, assim como notar a sua impermanência); 3) é possível ter um pensamento ou emoção e simplesmente notar, sem ter que lhe reagir; 4) apesar de podermos relaxar, este não é o objetivo destes exercícios, mas sim o de estarmos com a experiência tal como ela é, quer seja positiva/agradável, negativa/desagradável ou neutra.

Síntese

1) a mente é uma máquina de resolver problemas: sempre que há uma experiência indesejada/aversiva, ela tenta ver-se livre dessa experiência;
2) esta programação funciona para resolver problemas do mundo externo, mas não é muito eficaz a médio/longo prazo para resolver problemas do mundo interno (pensamentos, sentimentos, emoções, sensações corporais);
3) para além de não ser eficaz, acabamos por perder as experiências que valorizamos no momento presente, e afastamo-nos da vida que gostaríamos de viver;
4) treinarmos a nossa atenção para estar no presente e simplesmente notarmos a experiência tal como ela é, sem a modificar ou alterar é uma competência fundamental para a nossa qualidade de vida e bem/estar.
5) Desesperança criativa: há muito que tentam a mesma estratégia de controlo, sem os resultados esperados. Está na altura de experimentar uma nova forma de lidar com as dificuldades.

Tarefa para a semana

- Definir uma altura do dia na qual, durante 15 minutos, praticam um exercício breve de mindfulness (áudio 1: Meditacao Mindfulness da respiração). É importante usar a metáfora da pratica da atenção plena como um músculo: só se pode desenvolver com treino.
- Fazer o registo das práticas e trazer na próxima sessão (devem fazê-lo todas as sessões).

2

O CORPO COMO PRESENTE

promoção de consciência corporal através do *mindfulness*

Exercício de Mindfulness

As sessões devem começar com um exercício de mindfulness. Este exercício no inicio da sessão tem como objetivo a promoção do contacto com o momento presente na sessão (a partir do qual as participantes centram a atenção no presente, interrompem os padrões ruminativos e/ou o piloto automático do modo “fazer”, e é promovido o modo “estar e ser” e de consciência atencional). O exercício não terá que ser sempre o mesmo, mas é importante ter em atenção que a chave para a promoção das competências atencionais (focar e manter a atenção) necessárias ao cultivo de outras competências (abertura, curiosidade, aceitação e equanimidade) é a repetição e prática. Este exercício inicial serve como promotor do contacto global do momento presente, pelo que deverá ter nas suas instruções o contacto com pistas sensoriais. Por ser um programa direcionado a uma população com dor crónica, todos os exercícios de mindfulness deverão ter especial atenção em incluir instruções que promovam conexão com as pistas corporais e promovam consciência corporal. Este foco no corpo será fundamental e servirá de introdução a meditação da exploração corporal (ou body-scan).

Convido-a a sentar-se numa posição confortável, com as costas esticadas, mas não tensas. Pode colocar as suas mãos em cima do seu colo, e tenha os pés bem assentes no chão. E agora feche os olhos, ou, se for mais confortável, fixe a sua atenção num ponto. E traga a sua atenção para a sua respiração. E observe-a como se fossem um cientista curioso que está a contactar pela primeira vez com essa coisa chamada respiração (pausa 10s). Note o ar a entrar pelas suas narinas. Note as sensações do ar a entrar e a sair pelas suas narinas. Simplesmente note (pausa 5s). Por exemplo, note a temperatura do ar quando entra (ligeiramente mais fresco) e quando sai (ligeiramente mais quente) (pausa 10s). Note como o abdómen aumenta durante a inspiração, e diminui durante a expiração. Simplesmente note esse movimento (pausa 5s).

Não precisa de forçar a respiração, pois o seu corpo é sábio e sabe respirar sem as suas instruções, sem que force a respiração. Aqui o objetivo é simplesmente notar a respiração (pausa 10s). Note também como o seu peito enche quando inspira, e como fica mais vazio quando expira (pausa 5s). E note os seus ombros: como sobem ligeiramente na inspiração, e diminuem ligeiramente na expiração. Simplesmente note (pausa 15s). E durante o exercício, é possível que a sua mente comece a dizer coisas: é possível que apareçam imagens, ou pensamentos sobre o que tem para fazer depois desta prática, preocupações, tarefas por terminar. Ou até a sua mente pode comentar e dizer-lhe coisas sobre este exercício, questionar-se qual o objetivo, dizer-lhe que está a perder tempo, por exemplo. É normal. É só a sua mente a fazer o que todas as mentes estão programadas para fazer: ou seja, questionar e resolver problemas. Simplesmente note isso - como se dissesse um "olá!" a alguém a passar na rua -, e gentilmente volte a trazer a sua atenção para a respiração. Para as sensações da respiração no corpo: nas narinas (5s), no abdómen (5s), no peito (5s), nos ombros (5s). E quaisquer que sejam os pensamentos, imagens, memórias, preocupações que surjam durante o exercício, simplesmente note isso e volte gentilmente para a respiração. Sempre que a sua mente a distrair, não há problema, simplesmente volta a trazer a atenção para a sua respiração. Se sentir aborrecimento, ansiedade, frustração, simplesmente note isso, reconheça que esses sentimentos estão presentes, e gentilmente volte à respiração (pausa 15s). E quando estiver preparada, gentilmente abra os olhos terminando assim a prática."

Partilha

Não esquecer que a partilha deverá guiar a experiência de que:
1) a atenção altera a experiência (quando a nossa mente está fusionada com pensamentos e preocupações, deixamos de notar o corpo);
2) a mente naturalmente (ou seja, involuntariamente) deambula (o objetivo do exercício não é a mente "parar", nem relaxar, mas sim notar a experiência no momento presente tal como ela é, assim como notar a sua impermanência);
3) é possível ter um pensamento ou emoção e simplesmente notar, sem ter que lhe reagir;
4) apesar de podermos relaxar, este não é o objetivo destes exercícios, mas sim o de estarmos com a experiência tal como ela é, quer seja positiva/agradável, negativa/desagradável ou neutra.

Partilha da semana

Todas as sessões deverão começar com um momento de partilha, no qual as participantes abordam e discutem bloqueios e obstáculos sentidos ao longo da semana, particularmente dificuldades na execução da tarefa da semana. O terapeuta deverá estar consciente das experiências internas das participantes (e.g. pensamentos, emoções, preocupações, etc) que terão interferido com a prossecução da tarefa. Apesar de estarem relacionados, o terapeuta deverá estar atento a dois tipos de obstáculos: 1) contextuais em sentido estrito (e.g. horário, organização, etc) e 2) processos psicológicos (e.g. fusão cognitiva com crenças relacionadas com a utilidade da tarefa, com preocupações e consequências do exercício, etc). O papel do terapeuta é o de escutar ativamente e com atenção plena, reforçar as tentativas e o esforço, validar a experiência emocional, e simultaneamente promover a observação da experiência interna ("note isso", "repare no que a sua mente lhe disse"), ajudar na co-construção de soluções no sentido de facilitar a execução das tarefas da semana, utilizando sempre como guia o critério da utilidade (WORKABILITY) na aproximação de uma vida valorizada e vital. Um aspeto fundamental que o facilitador/terapeuta deve promover é o não-ajuizamento, estimulando a aprendizagem da aceitação/permissão da experiência: o importante é fazer as tarefas, os exercícios, tentando notar o que a mente diz, e de seguida largar aquele pensamento, simplesmente notando/o e tentando não ajuizar

Notas:

A dor como fenómeno multidimensional

Durante este espaço, é discutido o modelo comportamental da dor, no qual a dor é apresentada como um fenómeno multidimensional que engloba componentes sensoriais (estimulo físico), cognitivos (pensamentos acerca da dor, da sua duração, intensidade, frequência, das suas consequências, etc), emocionais (tristeza, ansiedade, frustração, culpa, vergonha, etc) e comportamentais (evitamento comportamental, etc). É importante que o modelo seja apresentado e discutido de forma congruente com a abordagem que guia este programa, i.e., o objetivo desta secção não é o de discutir a "verdade" do conteúdo dos pensamentos nem a "adaptabilidade" dos comportamentos, mas sim o de promover a compreensão funcional de que existe uma relação estreita entre a dor e os processos psicológicos subjacentes à forma como lidamos com essa dor. A importância da função, mais do que da forma, dos processos psicológicos deve ser descoberta de forma guiada pelo facilitador/terapeuta, com o auxilio de um quadro e um marcador.

"Eu gostaria de vos propor que passássemos alguns minutos a falar um pouco sobre dor, pode ser? E primeiro gostaria de saber como é a vossa experiência de dor, ou seja, quando têm dor como é que ela se manifesta no vosso corpo? E quando se apercebem dessa sensação física, que coisas é que passam pela vossa cabeça, que pensamentos têm? E como isso vos faz sentir? E, da vossa experiência, o que acontece à dor? [discussão: o terapeuta deverá guiar a discussão no sentido de emergir a informação dos pensamentos, emoções e comportamentos associados à experiência de dor]. Portanto, o que parece estar presente em todas as vossas experiências é que a dor é muito mais do que apenas a sensação física, certo? Reparem que associada à sensação física está habitualmente um conjunto de pensamentos [inserir exemplos partilhados pelas participantes] e ainda sentimentos e emoções [inserir exemplos partilhados pelas participantes]. E se bem se lembram do que falámos na sessão anterior, qual é que é a nossa tendência, enquanto seres vivos emergentes da evolução, para agir sempre que temos uma experiência desagradável ou dolorosa ou aversiva? Exato, evitarmos, fazermos tudo por tudo para que ela desapareça. É muito natural isso em nós, e é uma resposta automática: nós não escolhemos isso, ela emerge naturalmente para nos proteger e garantir a sobrevivência e o acesso a recursos. Mas como vimos também antes, a nossa atenção e a qualidade como a focamos e mantemos muda a nossa experiência com o que notamos (objectos, sensações, pensamentos etc). E o que a investigação tem mostrado nos últimos anos é que esta nossa tendência de querer afastar a experiência negativa e dolorosa (fazemos tudo para nos vermos livres, não só da dor, mas de pensamentos negativos, de emoções difíceis, etc) não só não é muito eficaz na sua diminuição, como na verdade só piora tudo: ora porque nos afasta da vida que nós gostaríamos de ter (das coisas q são verdadeiramente importantes para nós), como por vezes pode inclusivamente aumentar essas experiências negativas [podem ser introduzidos dois ou três dados, de forma clara, da relação entre evitamento e dor]. É que a nossa mente tem algumas características interessantes. Quero propor-vos um exercício muito rápido, pode ser? Certo, então fechem os vossos olhos, por favor. E peço-vos que pensem numa girafa. Pode ser uma girafa qualquer, não é importante, mas simplesmente pensem numa girafa. Visualizem o seu pescoço comprido, a cor da pele, o padrão da sua pele. Simplesmente pensem na girafa (10s). Agora peço que façam o seguinte: não pensem na girafa. Façam o que fizerem, vocês não podem pensar na girafa. Tirem a girafa da vossa mente, custe o que custar (10s). O que notaram? [o objetivo do exercício e da breve discussão é guiar as participantes na descoberta do efeito paradoxal da supressão do pensamento]. Reparem que é isto que nos acontece a todos, sem nos darmos conta, quando tentamos não pensar ou não sentir uma determinada experiência. E, claro, sem nos darmos conta, passamos a nossa vida a tentar não pensar na girafa (ou seja, a querermos não pensar em coisas negativas ou emoções difíceis), e nem nos damos conta de que estamos mais e mais e mais afastados da vida que queremos viver, nesta luta constante com os nossos pensamentos, com as nossas emoções, e com as nossas sensações físicas. Faz sentido? [breve discussão. E aqui é possível que surjam conteúdos como “mas é difícil”, “não consigo”, etc]. E não estamos a dizer que é fácil estar com essas experiências tão dolorosas. Estamos a propor que haja uma alternativa a essa vida de luta constante, e que passa por treinar a nossa relação com o nosso corpo e com as nossas experiências internas. E parte desse treino implica treinar a nossa atenção.”

Mindfulness **focado no corpo:** *body-scan*

Os exercícios de mindfulness são peças fundamentais na intervenção COMP.ACT. Todas as sessões deverão ter um espaço no inicio da sessão de promoção do contacto com o momento presente. Estes momentos são oportunidades para guiar uma reflexão sobre consciência (awareness), não-reatividade (nonreaction), e são introduzidos os primeiros blocos que alicerçam as sessões posteriores focadas na promoção da aceitação.

O body-scan é um exercício de mindfulness focado no corpo, no qual as participantes praticam o contacto com as pistas sensoriais do corpo, assim como a experiência interna associada a essa experiência. Neste exercício, as participantes aprendem a notar diferentes sensações corporais, promovendo, assim, a sua consciência corporal que será fundamental ao estabelecimento de uma relação mais aceitante do corpo e das suas sensações.

O exercício deve ser introduzido com um racional sintético, evitando discussões prolongadas sobre conceitos (linguagem), devendo o enfoque do exercício estar na prática experiencial e posterior partilha/discussão. Uma breve introdução poderá consistir em alertar as participantes para aspetos fundamentais do exercício:

"Vamos passar ao nosso exercício experiencial. Tal como o exercício que praticamos no inicio de cada sessão, o que se segue tem como objetivo treinarmos a nossa atenção e a nossa capacidade de estar no presente. Como vimos nesta sessão, e ficará ainda mais claro no decorrer do programa, a nossa experiência de dor não é apenas a sensação física do corpo, mas também toda a experiência emocional associada: a nossa mente diz-nos coisas sobre o significado daquela dor ("isto deve ser algo muito grave!"), sobre o tempo que a dor vai durar ("isto nunca vai passar, vou ficar assim para sempre"), as consequências daquela dor nas nossas relações ("sou um fardo", "vão cansar-se de mim", etc), sobre a nossa incapacidade de lidar com ela ("não sou capaz, não vou conseguir", "não vou conseguir trabalhar", etc), ou até sobre o que tudo isto diz sobre o nosso valor enquanto pessoa ("sou uma fraca, sou doente, não sou como as outras pessoas"), e por vezes até somos muito duros connosco e criticamo-nos. Reparem que, para além da sensação física já ser uma experiência muito difícil, todos estes pensamentos e sentimentos acabam por piorar a situação e dificultam a nossa vida [mencionar brevemente a evidência científica da relação entre experiência emocional, neurotransmissores, processos inflamatórios e dor]. Estes exercícios têm como objetivo aprenderem a estar com o vosso corpo, com a vossa mente, e, tão bem quanto consigam, não tentar alterar essa experiência e simplesmente estar no presente, permitindo que a experiência seja tal como ela é. E um dos aspetos fundamentais é aprendermos a estar com o nosso corpo e sabermos ler as pistas que o nosso corpo nos dá, sem as diminuir nem as aumentar, mas simplesmente estando com a sensação corporal tal como ela é.

O exercício que se segue chama-se body-scan, precisamente porque o que vamos fazer é usar a nossa atenção e percorrer o nosso corpo. Dizer-vos apenas alguns pontos: 1) estes exercícios não têm como objetivo relaxarem. Pode acontecer, o que é agradável, claro, mas caso não aconteça não se preocupem, porque não é esse o objetivo. O objetivo é estar no presente, tal como o presente é momento a momento; 2) claro que a nossa mente vai fazer o que está programada para fazer: vai fazer comentários, vai saltitar de tema em tema. Não tem mal, é normal, é o funcionamento para o qual está desenhada. Quando notarem que a vossa mente saiu do exercício, simplesmente observem isso com curiosidade e voltem a prestar atenção ao vosso corpo e às instruções, tentando não se criticarem por isso; 3) é possível que ao longo do exercício comecem a sentir uma sensação desconfortável, nomeadamente nas costas. Isso é também normal, quase toda a gente sente isso, e deve-se ao facto de estarmos algum tempo (minutos) na mesma posição. Pedia-vos para não reagirem automaticamente a mudar de posição, mas primeiro apenas notarem essa sensação, e só depois, se assim entenderem, podem mudar de posição com consciência. Mas primeiro, simplesmente notar/reconhecer".

"Encontre uma posição confortável, sentada numa cadeira com os pés bem assentes no chão, numa posição que lhe dê conforto e estabilidade (pausa 5s). Deixe que os seus braços repousem ao longo do corpo, mantendo as palmas das mãos abertas e viradas em direção ao teto, se for confortável para si. Gentilmente e calmamente, traga a sua atenção para a respiração. Não tentando manipular a respiração de alguma forma, mas simplesmente experienciando as sensações físicas da respiração, à medida que o ar se move para dentro e para fora do corpo (pausa 5s). E dirija a sua atenção para a zona da barriga, para o abdómen, sentindo as sensações nessa zona à medida que o ar entra no corpo e o abdómen se expande; e à medida que o ar sai do corpo e o abdómen se retrai. E simplesmente siga os movimentos rítmicos da sua barriga a cada respiração (pausa 5s). Note o levantar da barriga na inspiração, e o baixar da barriga na expiração. E a cada expiração, deixe que o seu corpo se torne mais pesado, à medida que se afunda ligeiramente na cadeira. Simplesmente traga a atenção para cada respiração. Inspiração... e expiração... Uma a seguir à outra (pausa 10s).

E agora, note o contacto dos seus pés com o chão. E traga a sua atenção para os dedos do pé esquerdo (pausa 5s). Tente notar quaisquer sensações que estejam presentes nessa parte do corpo (pausa 5s). Pode notar sensações de vibração, ou comichão, calor ou frio. O que quer que seja, não procure nenhuma sensação em particular, mas simplesmente sinta os dedos tal como eles são. E se notar que não encontra nenhuma sensação quando foca a sua atenção nessa região, não há problema: simplesmente experiencie o não sentir. Lembrem-se que o importante é a atenção e não a sensação. E, portanto, pouco importa se tem ou não sensações. O que importa é prestar atenção ao que está presente nessa parte do corpo. Simplesmente tenha consciência de onde está a sua atenção (pausa 10s). Sinta o dedo grande, o dedo pequeno. E talvez os dedos intermédios. Não os tente mover, não é necessário. Simplesmente tente senti-los, tal como são. Mas se os mover, procure movê-los com consciência plena. A ideia é simplesmente notar as sensações nessa zona do corpo (pausa 15s).

E quando se sentir preparada, e à medida que expira, largue os dedos e mova a sua atenção para a planta do seu pé esquerdo. Para quaisquer sensações que existam nessa zona do corpo. Sinta simplesmente a planta do pé (pausa 10s). E quando se sentir preparada, expire, largue a planta do pé, focando agora a atenção no calcanhar, na zona em que o seu calcanhar entra em contacto com o chão. E simplesmente sinta as sensações aí presentes, talvez de toque ou pressão (pausa 5s). Já sabe que é possível que a mente se distraia com outras coisas, e que se aperceba que estava a pensar noutra coisa que não no exercício. Não há problema, é normal. É isso que todas as nossas mentes humanas fazem. Quando notar isso, simplesmente reconheça, observe e gentilmente volte a trazer a atenção à planta do pé, tão bem quanto consiga (pausa 10s).

Quando se sentir preparada, durante a próxima expiração, foque a sua atenção no peito do pé esquerdo. E em quaisquer sensações, ou ausência de sensações, nessa zona em particular. Não tente pensar acerca do seu pé, simplesmente esteja consciente das sensações do seu pé nesse momento. Pode notar, por exemplo, o contacto com o sapato, ou com a meia. Simplesmente note isso (10s). Permita que a sua atenção inclua agora o tornozelo. E sinta o tornozelo esquerdo (15s).

E quando se sentir preparada, numa expiração, largue o seu tornozelo e todo o pé esquerdo. Torne-se agora consciente da sua perna inferior esquerda. Da parte da frente, da canela, e do músculo da parte de trás. E note quaisquer sensações na sua perna esquerda. Experiencie essa zona tal como é, não tentando que seja diferente. Simplesmente note, com curiosidade, as sensações que sente nessa zona da sua perna (pausa 15s). E quando se sentir preparada, largue também essa parte do corpo. E se houver uma outra parte do seu corpo que esteja a captar a sua atenção, por exemplo se houver uma sensação desconfortável, simplesmente note isso, e tão bem quanto consiga, volte a trazer a sua atenção para a perna inferior e as sensações aí presentes (pausa 10s). Deixe que a sua atenção se mova agora para o joelho. Sinta o seu joelho, a rótula, os lados e a parte de trás. Tente notar as sensações no joelho esquerdo, tão bem quanto consiga (pausa 15s).

E, novamente na próxima expiração, deixe o joelho e mova a sua atenção para a região da coxa, desde a zona acima do joelho até à zona da virilha. Pode sentir sensações mais à superfície ou em zonas mais profundas. Simplesmente note as sensações na sua coxa, deixando que ela esteja tão relaxada quanto possível (pausa 15s).

Quando se sentir preparada, inspire, e ao expirar foque a sua atenção para o fundo das costas, para a zona lombar. E experiencie quaisquer sensações nessa zona. Esta é uma região que por vezes nos dá problemas. Pode haver sensações um pouco intensas de dor ou desconforto. Note quaisquer que sejam as sensações presentes. O objetivo é simplesmente notar. Note as sensações nessa zona. Tente simplesmente notar, sem julgar como "boa" ou "má". Simplesmente notando as sensações: é uma sensação de ardor? De pressão? E é em que zona da lombar? Mais à esquerda? Mais à direita? No centro? Simplesmente note a sensação (pausa 5s). E note o que a sua mente comenta e diz acerca da sensação. Simplesmente note isso, nessa característica da sua mente (como a de todas as mentes!) de comentar e julgar e avaliar. E volte a atenção para a sensação física no fundo das costas (pausa 15s). Na próxima expiração, mova a sua atenção para a zona superior das costas. E sinta as sensações presentes aí. Talvez sintam a sua caixa torácica a expandir com a inspiração. Ou as sensações de contacto da omoplata com a cadeira (pausa 5s). E, novamente, se houver alguma sensação desconfortável, simplesmente note isso, note o que a mente diz, o que comenta sobre isso, e depois de notar, regresse gentilmente para a sensação física (pausa 15s). Mova a sua atenção agora para a barriga. Talvez sentindo o movimento da respiração nessa zona. Permita que a sua atenção abranja também a zona do peito. Sentindo os movimentos do seu peito a expandir com a inspiração, e a contrair com a expiração. E se conseguir, pode também notar os batimentos do seu coração. Sinta o seu peito e a sua barriga, toda a parte da frente do seu tronco (pausa 15s). A zona do peito e da barriga são especialmente importantes porque é aqui que se manifesta muita da nossa tensão emocional: podemos sentir náusea, ou o peito pesado. Se for o caso, simplesmente note isso, e tente simplesmente notar as sensações nessa zona do corpo. Que sensações nota? Picada? Dormência? Ardor? Simplesmente note qualquer que seja a sensação nessa zona do corpo. E quando notar a sua mente a tentar captar a sua atenção e levá-la para outro lugar, simplesmente note isso e volte a direcionar a sua atenção para as sensações na barriga e no peito (pausa 10s).

E quando se sentir preparada, leve a sua atenção até às pontas dos dedos das mãos. E vamos sentir as duas mãos ao mesmo tempo. Simplesmente tente notar as sensações nas pontas dos dedos. Pode sentir pulsações, calor... Talvez consiga sentir cada dedo separadamente. Simplesmente note as sensações nos seus dedos (pausa 5s). E permita que a sua atenção se estenda para as palmas das mãos, para as costas das mãos, e para os pulsos (pausa 10s). Veja que sensações consegue notar nas suas mãos e pulsos: há diferenças de temperatura? Há sensações de dormência? Picada? Pressão? Simplesmente note isso. E tente notar no que a sua mente lhe diz sobre essas sensações. Simplesmente note (pausa 5s). E agora tente notar as sensações nos antebraços, nos cotovelos, e na parte superior dos braços e os ombros. Muitos de nós acumulamos tensão nessa zona. Note quaisquer sensações presentes aí, particularmente nos ombros. Quaisquer que sejam (pausa 15s). Note essas sensações, e identifique exatamente em que zona dos braços ou dos ombros as sensações estão (pausa 5s). Na próxima expiração largue a atenção dos braços e dos ombros, e dirija a atenção para o pescoço. Para a parte de trás do pescoço, e para a parte da frente. Talvez sentindo as sensações da respiração nesta zona, ou as sensações de engolir. Novamente, se notarem desconforto ou tensão na zona da cervical ou próximo da parte de trás do pescoço, simplesmente note isso, e tente explorar a sensação com curiosidade, como se fosse um cientista a estudar essa zona: qual é a sensação? É de ardor? É de pressão? É em toda a zona, ou é mais forte em uma parte específica?

E note a tendência natural e automática para relaxarmos ou nos movermos para diminuir o desconforto. É algo que fazemos automaticamente, sem consciência. Simplesmente note isso (pausa 15s). Sempre que a sensação for demasiado intensa, demasiado dolorosa, pode voltar por momentos à respiração, sentindo o ar a entrar e a sair do nariz. A sua respiração é um lugar seguro que está sempre presente, ao qual pode recorrer quando a experiência sensorial for demasiado intensa. Não se trata de fugir da dor nem de fingir que a sensação já lá não está. É simplesmente uma forma de respirar um pouco, de ter um momento de calma, de recarregar a sua energia e a sua tolerância, para que possa voltar a trazer a sua atenção PARA a sensação física intensa. A respiração é um lugar onde poderá sempre voltar: é um porto seguro (pausa 5s).

Note agora as sensações presentes na sua cara. Foque-se no maxilar e no queixo. E nos lábios, na boca, nas gengivas e na língua. Simplesmente note, sem ter que mexer para sentir melhor. Tente simplesmente notar as sensações nessa zona tal como elas existem (pausa 15s). Agora dirija a sua atenção para o nariz, talvez sentindo o ar a entrar e a sair das narinas à medida que respiram (pausa 15s). Mova a sua atenção para os olhos e para toda a região à volta dos olhos. Talvez sentindo o peso das pálpebras, ou os movimentos oculares. Sinta também a zona das têmporas e da testa. Talvez procurando relaxar a testa, se estiver contraída, fazendo-o conscientemente (pausa 15s). Sinta o seu rosto como um todo, incluindo também ambas as orelhas (pausa 5s). E agora foque a sua atenção na parte de trás e na parte de cima do crânio. E todo o couro cabeludo. Tente notar que sensações estão presente nessa zona do corpo (pausa 10s).

E quando se sentir preparada, sinta o seu corpo como um todo, desde o topo da sua cabeça até à planta dos pés. E à medida que chegamos ao fim desta prática, tire um momento para oferecer a si própria um sorriso interior de gratidão por ter tirado tempo para estar consigo própria, com o seu corpo desta forma. A sua mente pode comentar e criticar sorrir para si própria. Simplesmente note isso, a sua mente a comentar e a avaliar, e conscientemente ofereça um sorriso interior para si própria (pausa 20s). Traga a sua atenção de novo para o corpo e lentamente comece a mexer os dedos das mãos, e os dedos dos pés. Estique os braços acima da cabeça e alongue todo o corpo (pausa 30s)””

Partilha

O momento de partilha deverá servir para que os/as facilitadores/terapeutas guiem a descoberta da importância de treinar a atenção e consciência corporal. A partilha deverá ir no sentido de discutir: 1) a natureza da dor (A dor não é uma coisa singular, unitária; mas antes um compósito interdependente e interativo. A dor é constituída por vários sinais que no seu conjunto criam a experiencia de dor. E a componente psicológica representa uma enorme porção da experiência da dor. A dor é uma experiência física. O sofrimento resulta das reações que temos em relação à dor inicial); 2) o automatismo do comportamento/resposta (o objetivo não é "aguentar" a dor e não agir, mas não mudar de postura de forma imediata e automática, ao primeiro sinal de desconforto/dor); 3) a importância da atenção focada/ancorada no corpo (porque o corpo está sempre no presente, e para aprendermos a identificar e a familiarizar-nos com as manifestações corporais das nossas experiências internas – podemos fornecer, de forma clara, alguns dados sobre a relação entre emoção e resposta inflamatória, no sentido de desmistificar a separação corpo-mente).

"O body-scan é, portanto, uma ferramenta para investigarmos profundamente o nosso corpo, o que ele nos diz. Porque o nosso corpo não é nosso inimigo! Existe sabedoria no nosso corpo, no que ele nos tenta informar sobre as nossas emoções, por exemplo. Habitualmente só notamos o corpo quando ele já está em sobrecarga ou a acumular um conjunto de experiências internas difíceis (stress, ansiedade, etc). Se aprendermos a trazer a nossa atenção para o corpo, não só aprendemos a ler melhor os sinais que ele nos dá todos os dias, como também aprendemos a interromper o acumular de experiências emocionais difíceis. E isto é verdade para todos nós, não só para quem tem dor crónica. Claro que é particularmente útil para quem tem dor, uma vez que como temos visto a dor não é apenas a sensação física, mas o conjunto de experiências associadas, nas quais se incluem os nossos pensamentos, juízos, avaliações, e emoções – e essas experiências, para além de serem consequências da experiência aversiva física, também mantém a dor e impedem que haja o seu alivio/diminuição. E a nossa respiração é muito importante: é um lugar seguro ao qual podemos sempre voltar quando as sensações do nosso corpo se tornam demasiado difíceis. Não se trata de fugir da dor, mas sim ir à tona respirar um pouco de ar puro, para que em seguida possamos voltar a estar com com a sensação física difícil, sem nos afogarmos na dor/sofrimento."

Síntese

1) A dor é um fenómeno multidimensional: inclui uma dimensão sensorial, mas também uma dimensão cognitiva e emocional;
2) A nossa experiência interna manifesta-se fisicamente no nosso corpo;
3) O corpo não é nosso inimigo: constitui ferramenta fundamental de contacto com o momento presente e ajuda-nos a monitorizar a nossa experiência interna (pensamentos, emoções, etc). Por outro lado, é central na estabilização da mente e no serenar/acalmar da mesma
4) O body-scan é uma forma de aprendermos a estar com o nosso corpo, tal como ele é, a notar a experiência interna e a sua manifestação no corpo / promove a consciência corporal e sensorial.

Tarefa para a semana

- Definir uma altura do dia na qual, durante 15 minutos, fariam um breve exercício de body-scan (áudio 2: Mindfulness focado no corpo). É importante usar a metáfora da atenção como um músculo: só se pode desenvolver com treino;
- Tentar estar atentas à forma como reagem a insucessos, fracassos, dificuldades, ou simplesmente quando as coisas não correm como gostariam (no geral, ou especificamente focado à dor). Que coisas dizem a vocês próprias? Como se tratam? Qual o tom com que falam e comentam sobre o que se passou? Preencher a Ficha de Atividade 3 ("Registo da mente")

Notas:

3

COMPAIXÃO I

do autocriticismo ao autocuidado

Respiração Tranquila (SRB)

Esta sessão deverá começar com um exercício de respiração tranquila (SRB: soothing rythm breathing) em alternativa ao habitual exercício breve de mindfulness de promoção do contacto com o momento presente (meditação Mindfulness da Respiracao). O SRB no contexto desta sessão tem como objetivo principal a ativação do sistema parassimpático através da respiração profunda e tranquilizadora, e essa ativação promoverá a textura emocional adequada à introdução da compaixão e dos exercícios de promoção de (auto)compaixão. Esta sessão debruçar-se-á sobre a inutilidade (unworkability) do autocriticismo e a importância do desenvolvimento de uma mente compassiva (tonalidade compassiva, tolerante e validante), nomeadamente como forma de lidar com a dor e dificuldades associadas.

"Nesta sessão, como é habitual, vamos começar com um exercício experiencial focado na respiração. No entanto, o exercício de hoje é ligeiramente diferente: enquanto que nos exercícios anteriores o objetivo era simplesmente notar a respiração, tentando não interferir nem a influenciar, no exercício de hoje vamos tentar interferir com a cadência da respiração, tal como for pedido na instrução. Tentem fazer o exercício tão bem quanto consigam. Já sabem que o importante é notarmos o que acontece no nosso corpo, notarmos o que a nossa mente nos diz, e voltarmos a redirecionar a nossa atenção para a instrução do exercício.

Sente-se na sua cadeira, com os pés bem assentes no chão, e adote uma postura direita, mas confortável. Encontre uma posição onde esteja confortável, mas alerta. Pode fechar os olhos. Tente relaxar os músculos faciais, e tente esboçar um ligeiro sorriso, um sorriso que seja confortável e que lhe transmita um sentimento de amabilidade e simpatia. Comece por notar a sua respiração. Apenas note o ar a entrar pelo nariz e a sair pela boca. Note cada inspiração e cada expiração (pausa 10s). Agora lentamente respire mais devagar, a um ritmo que permita que o corpo comece lentamente a abrandar. Procure respirar de um modo mais lento do que o habitual, mas a um ritmo que seja confortável. Pode, por exemplo, contar até 3 na inspiração, e novamente na expiração: (inspiração) 1, 2, 3; (expiração) 1, 2, 3. O objetivo é atingir uma respiração que seja confortável, tranquilizadora e estável. E que, através dela, consiga repousar a mente na sua respiração. Experimente diferentes ritmos até encontrar aquele que for mais confortável e lhe ofereça a sensação de que está a abrandar, a acalmar, e a libertar qualquer tensão ou desconforto desnecessário (pausa 20s).

E agora foque a sua atenção na respiração, lenta e profunda. Simplesmente note o ar a entrar nos seus pulmões em direção ao diafragma. Note o diafragma a expandir-se, e depois novamente o ar a sair pela sua boca. E se notar que a sua mente já se distraiu com algum pensamento ou som do exterior, lembre-se que isso é perfeitamente norma. Apenas note que isso aconteceu e gentilmente retorne ao corpo e à sua respiração (pausa 10s).

À medida que a sua respiração se torna mais lenta e profunda, foque-se especialmente na sua expiração, sentindo que se afunda cada vez mais na cadeira (pausa 10seg). E se notarem que está preocupada com o fazer bem o exercício, ou se está ou não a funcionar consigo, apenas observe esses pensamentos como pensamentos naturais, e gentilmente voltem a dirigir a sua atenção para a respiração (pausa 5s). Note que em cada inspiração, o seu corpo se nutre, se alimenta de oxigénio, e em cada expiração ele relaxa, naturalmente, sem ter que se esforçar (pausa 5s). Note como todo o seu corpo se move subtilmente com a respiração, como o movimento do mar. Deixe-se embalar por esse ritmo suave e regular da sua respiração (pausa 5s). Respire, simplesmente. Seja a sua respiração, como se não houvesse mais nada neste momento (pausa 5s)

Tente associar à sua respiração um sentimento de paz e tranquilidade (pausa 10s). E agora tente colocar uma expressão facial que transmita esse sentimento de paz e tranquilidade. Talvez possa enviar um ligeiro sorriso a si própria, ou uma expressão que faça mais sentido para si [pausa 10s]. E quando estiver preparada, gentilmente abra os olhos e termine a prática.”

Partilha da semana

A partilha deverá passar pela normalização das dificuldades sentidas pelas participantes (e.g. encontrar a cadência da respiração e repousar nela), sempre reforçando a tentativa de realizar o exercício e a intenção, assim como relembrando que o importante nestes exercícios é tentarmos e permanecermos no exercício (o melhor que conseguirmos) independentemente do que a nossa mente nos diz.

É importante o/a terapeuta ouvir ativamente a partilha das participantes, normalizando as dificuldades, reforçando o compromisso comportamental com as tarefas e modulando uma relação com as experiências internas baseada na observação não-reativa e não-ajuizamento, tratando os produtos da mente como entidades diferentes do Eu (e.g. "repare que a sua mente lhe disse...", "teve o pensamento..."). É importante estar atento/a, ainda, aos obstáculos à realização das tarefas da semana, as quais poderão ser conceptualizadas em: obstáculos ecológicos (e.g. esquecimento, organização, tempo, divisão de tarefas, conflito com a vida diária e horários de trabalho e familiares) ou obstáculos internos (e.g. o pensamento de que o exercício não serve para nada, de que não funciona com a participante, de que é aborrecido, de que não consegue fazer o exercício). Estes obstáculos deverão ser discutidos de forma integrada, mas tendo em atenção que, embora interligados, são distintos, podendo ser útil a co-construção de resoluções diferenciadas quando os obstáculos são ecológicos (e.g. colocar um alarme a lembrar para fazer a tarefa) ou internos (e.g. notar o que a mente diz, e ainda assim realizar a tarefa).

Notas:

Corpo e Mente: uma divisão artificial

"Sendo o programa COMP.ACT desenhado para ser aplicado na Dor Crónica, é importante falarmos da relação entre o corpo e a mente. Há uma longa história nesta discussão entre o corpo e a mente que não faz sentido abordarmos aqui. Mas em termos práticos, essa divisão tem servido para compreendermos que uma coisa é o corpo (onde se inserem as sensações físicas), e outra coisa é a mente (onde se inserem os nossos pensamentos, as nossas emoções, etc). Mas essa divisão é, na verdade, artificial, uma vez que ambos estão estreitamente ligados um ao outro. Isto é particularmente verdade quando falamos de dor, uma vez que, como temos visto, a dor é um fenómeno que engloba a sensação física, o que pensamos sobre aquela sensação (se a intensidade é elevada ou não, se vai passar ou não, se somos capazes de a tolerar ou não, etc), e o que sentimos (ficamos ansiosos porque achamos que ela nunca vai passar, ou ficamos tristes porque nos sentimos menos úteis ou menos funcionais, etc). E o que começámos a ver nas duas sessões anteriores é que podemos utilizar os fenómenos que ocorrem na mente para influenciar os que ocorrem no corpo: por exemplo, temos visto como a nossa atenção altera a nossa experiência: como as sensações físicas no corpo se podem alterar dependendo da forma como utilizamos a nossa atenção. Mas há exemplos ainda mais claros disto: por exemplo, o que acham que aconteceria ao vosso coração se pensassem que seriam assaltadas ao sair da sessão? Exato, começaria a bater muito depressa, as mãos poderiam começar a suar, por ventura os braços ficariam contraídos, etc. E reparem que tudo isso porque tiveram o pensamento de que poderiam vir a ser assaltadas! Portanto, é muito claro que há aspetos do funcionamento do nosso corpo que podem ser influenciados pelo funcionamento da nossa mente. Mas o contrário também se verifica: também o nosso corpo pode influenciar a forma como nos sentimos. Por exemplo, há um estudo muito conhecido que sugere exatamente isto: o estudo concluiu que se colocarmos um lápis na boca, por forma a que a nossa expressão facial mimetize um sorriso, a nossa resposta em termos de humor irá estar de acordo [atenção: utilizar cautelosamente este exemplo do Efeito de Feedback Facial, dado que o estudo de Strack, Martin & Strepper (1988) tem sido desafiado por estudos de replicação]. Ou seja, a própria musculatura facial semelhante ao sorriso (mesmo que não estejamos verdadeiramente a sorrir!), produz uma resposta semelhante à que temos quando sorrimos genuinamente. Este é um bom exemplo do nosso corpo (os músculos da cara e expressão facial) a influenciar a nossa mente (o nosso humor). Isto significa que no que diz respeito à psicologia da dor, a nossa tentativa de lidarmos melhor com a dor deve passar quer por aprendermos a influenciar o corpo através dos nossos processos mentais (utilizar a nossa atenção como forma de influenciar a nossa perceção e, portanto, a dor), assim como por aprendermos a influenciar os nossos estados mentais através do corpo (utilizar a respiração para produzir sensação de relaxamento e contentamento). No exercício anterior, quando vos dizia para esboçarem um sorriso, tinha a ver com isto. Estes dois aspetos são fundamentais, estão intimamente ligados e são elementos-chave na forma como experienciamos e lidamos com a dor."

Notas:

Do criticismo à compaixão: a compaixão no corpo

O objetivo é que a discussão seja guiada no sentido da descoberta de que o auto-criticismo é inútil ou mesmo contraproducente.

"Nós vimos na sessão anterior que quando temos dor, a nossa mente não está habitualmente calada nem sossegada, e diz-nos coisas. Algumas vezes ela diz-nos, inclusivamente, coisas sobre nós e sobre o que aquela dor diz sobre nós, sobre a nossa validade enquanto seres humanos, a nossa capacidade de lidar com a dor, e nós conseguimos ser muito duros connosco e ser muito autocríticos. O que habitualmente a vossa mente vos diz sobre vós quando estão com dor? E o que acontece à dor, passa? Aumenta?

De facto, criticarmo-nos não parece ser uma grande solução, muito menos quando já estamos a sofrer que chegue com a dor. E o auto-criticismo é mesmo um processo tóxico, que a investigação tem mostrado estar intimamente ligado à depressão. Inclusivamente, tem sido sugerido que quando nos criticamos, ativamos uma resposta fisiológica de ameaça, com hormonas como o cortisol a serem lançadas na corrente sanguínea (mais uma vez, a mente e o corpo ligados!). É claro que não temos culpa de ter estes pensamentos: como vimos anteriormente, são automáticos. Mas já repararam que nós por vezes reagimos ao nosso sofrimento de uma forma tão dura e crítica, e ao sofrimento dos outros de forma calorosa, bondosa, compassiva? Isso é muito habitual: somos capazes de ter uma palavra amiga com um familiar em sofrimento, acudimos calorosamente a nossa filha quando esta está a sofrer, somos carinhosos; mas quando somos nós a sofrer, não temos esse mesmo carinho e calor na forma como lidamos com o nosso sofrimento. Já repararam? [5mins de discussão, se o grupo quiser partilhar algumas ideias]. Mas há boas notícias: nós podemos treinar a nossa mente a ter outro tipo de diálogo: um que não seja crítico e de diminuição, mas sim caloroso e cuidador. Isto implica treino, como muitos dos exercícios que aqui praticamos, mas os resultados positivos são sentidos, como muita investigação científica tem mostrado. O exercício que se segue é uma forma de estimular essa postura calorosa e compassiva para connosco."

Exercício Amor-Bondade (Loving-Kindness)

"Sente-se confortavelmente numa posição relaxada, mas alerta. Mantenha as suas costas direitas, mas não tensas. Coloque as suas mãos no seu colo, com os pés bem assentes no chão. Feche os olhos, se se sentir confortável. Tire um momento para notar a posição do seu corpo como um todo. Note onde sente leveza ou peso. Note as sensações da sua roupa em contacto com a pele. Note se consegue sentir o ar na sua pele exposta. Sinta os pés em contacto com o chão (pausa 5s). Agora traga a sua atenção para a respiração (pausa 5s). Na próxima expiração, tente esvaziar completamente os seus pulmões. E permita que os seus pulmões se encham novamente por si próprios. Faça mais algumas respirações desta forma. Esvaziando os pulmões completamente, e deixando que se encham novamente por si próprios (pausa 25s).

Agora, tão bem quanto consiga, deixe de controlar a sua respiração, e simplesmente observe a sua respiração no seu ritmo natural (pausa 10s). Foque a sua atenção na área do corpo onde nota a respiração de forma mais predominante. Pode ser nas narinas, observando o movimento do ar a entrar e a sair do corpo, no abdómen ou no peito, à medida que se expandem e contraem. Mantenha a sua atenção nessa zona (pausa 25s).

À medida que observa a sua respiração, se a sua mente vaguear, simplesmente note o que desviou a sua atenção da respiração, e gentilmente regresse à respiração. Volte a trazer a sua atenção para aquela área de corpo onde nota as sensações da respiração mais nitidamente, enquanto inspira e enquanto expira (pausa 10s). Tente manter-se presente com a sua respiração o melhor que conseguir (pausa 20s).

Agora, traga à sua mente alguém por quem sinta amor incondicional, um amor profundo e genuíno. Pode ser uma pessoa, um animal. E simplesmente note esse sentimento de amor incondicional. Reconheça quão vulnerável é a vida desse ser. Tal como nós, sujeito a sofrimento. E, tal como nós, esse ser deseja ser feliz e livre de sofrimento (pausa 5s).

Agora, reconhecendo a vulnerabilidade e o desejo de ser feliz e livre de sofrimento desse ser, gentilmente ofereça-lhe as seguintes frases:

Que sejas feliz,
Que estejas bem,
Que sejas livre de sofrimento,

Que vivas em segurança e que te corra bem a vida (pausa 5s).

Mantendo a imagem desse ser que lhe é querido, apreciando a sua companhia, e sentindo a importância destas palavras. Elas transmitem o seu desejo profundo que esse ser seja feliz e livre de sofrimento.

Que sejas feliz,
Que estejas bem,
Que sejas livre de sofrimento,
Que vivas em segurança e que te corra bem a vida (pausa 15s).

Poderá dizer outras palavras e frases. Não tem que seguir estas. Diga as que lhe fizerem mais sentido. Encontre as palavras que para si melhor descrevam esse sentimento: o desejo profundo de que esse outro ser seja feliz e livre de sofrimento.

E quando notar que a sua mente vagueou, simplesmente dirija a sua atenção para a imagem desse ser querido, para as frases de amor e de bondade, e repita novamente:

Que sejas feliz,
Que estejas bem,
Que sejas livre de sofrimento,
Que vivas em segurança e que a vida te corra bem (pausa 20s).

E agora pense em alguém que conheça e que esteja a passar um momento difícil, com sofrimento físico. Pense em alguém que esteja doente, ou vulnerável. E dirija para essa pessoa as seguintes frases:

Que estejas bem
Que estejas livre de sofrimento
Que sejas paciente
Que sejas tolerante com as tuas limitações
Que sejas corajoso para aceitar as mudanças que acontecem no teu corpo, momento a momento, sejam elas boas ou más
Que sejas caloroso e bondosa contigo próprio (pausa 10s).

E agora tente expandir esse sentimento de bondade para se incluir a si própria, e diga a si própria:

Que eu esteja bem
Que eu esteja livre de sofrimento
Que eu seja paciente
Que eu seja tolerante com as minhas limitações e com o meu corpo com dor

Que eu seja corajosa para aceitar as mudanças que acontecem no meu corpo, momento a momento, sejam elas boas ou más
Que eu seja calorosa e bondosa comigo própria (pausa 10s).
Reconhecendo o seu desejo de ser feliz e livre de sofrimento, ofereça essa bondade e amor a si própria.
Que eu esteja bem
Que eu esteja livre de sofrimento
Que eu seja paciente
Que eu seja tolerante com as minhas limitações e com o meu corpo com dor
Que eu seja corajosa para aceitar as mudanças que acontecem no meu corpo, momento a momento, sejam elas boas ou más
Que eu seja calorosa e bondosa comigo própria (pausa 10s).
E pode alterar estas palavras, da forma que fizer mais sentido para si. Não importa se não consegue sentir sensações muito fortes. Simplesmente repita as frases, repita essa boa vontade, e sinta esse calor e afeto, oferecendo-as a si própria com o coração. A repetição familiar das palavras e da intenção por trás delas, de que possamos ser felizes e livres de sofrimento, é o que importa.
A agora, largue as palavras e as imagens, e dirija a sua atenção para respiração. E repouse no seu corpo, apreciando esta boa vontade e compaixão.
E gentilmente abra os seus olhos, terminando a prática.”

Notas:

Partilha

A partilha após este exercício deverá passar pelas dificuldades sentidas no exercício: 1) as palavras, devendo ser reforçada a tentativa e compromisso com o exercício, assim como reiterar, como na instrução, que aquelas palavras são as mais usadas nestes exercícios, mas que a participante pode adaptar e experimentar diferentes, até conseguir encontrar aquelas que melhor evoquem o calor e a bondade subjacente ao exercício; 2) a dificuldade em dizer a si própria, normalizando esta dificuldade como comum, e reforçando que cultivar esse diálogo interno e relação de cuidado, calor e afeto connosco implica treino e repetição. Mas que o importante é praticar, mesmo que não sintam nada. Praticar para que, tal como o "sorriso do lápis" evoca humor positivo, também esta prática acabará por evocar calor, afeto e carinho.

Síntese

1) Corpo e mente são divisões artificiais: o que a mente produz tem efeitos no corpo, e o que ocorre no corpo desencadeia processos mentais;
2) Muitas vezes quando sentimos dor, a nossa mente julga e comenta, produzindo pensamentos autocríticos que nos causam ainda mais sofrimento;
3) Nem sempre é fácil sermos calorosos e compassivos connosco como somos com alguém que amamos;
4) É possível treinarmos essa capacidade de responder ao nosso próprio sofrimento de forma calorosa.

Tarefa para a semana

- Fazer alternadamente "body-scan" (áudio 2: Mindfulness focado no corpo) e "loving-kindness" (áudio 3: exercício loving-kindness);
- Nos momentos mais difíceis, escreverem frases que diriam a alguém (pode ser amigo, animal, etc) a passar exatamente pela mesma situação; No fundo, o que poderiam dizer que, no fim, lhes confortasse. Que essa pessoa, ao ouvir, gostaria de levar. Registar na Ficha de Atividade 4 "o que diria a alguém que sofre como eu";
- A tendência natural da mente é para o enviesamento (evolução). Em função do enviesamento focado na informação negativa, não conseguimos ver e frustramos porque não somos capazes de ver o que temos de bom na nossa vida. Porque por muito bom que seja, não será o que gostaríamos que a nossa vida fosse. Habitualmente não somos capazes de reconhecer que o que já temos é uma bênção. É importante aprendermos a

reconhecer o que já temos, e não o que falta. Para isso, em dias alternados, i.e., 4 dias da semana, fazer os 10 dedos de gratidão: pensem em 10 coisas no vosso dia que tenham gostado e sobre as quais estejam gratas. A dificuldade aqui é que não podem ser coisas grandes e genéricas, do tipo "estou grata pelos meus filhos, pela minha família, estou grata por ter acordado hoje". Tudo isso é fantástico, mas para este exercício não contam. Para este exercício o que conta são aspetos específicos, quanto mais específicos, melhor. Por exemplo "estou grata por ter visto o pôr-do-sol hoje, que estava muito alaranjado/avermelhado e intenso". Ou algo como "estou grata pela conversa ao almoço com a minha colega, consigo sentir ainda a satisfação que foi conversar com ela". Registo na Ficha de atividade 5 "os 10 dedos da gratidão".

Notas:

4

COMPAIXÃO II

o corpo como âncora da autocompaixão

Respiração Tranquila (SRB) com um *twist* (por que estou aqui)

Esta sessão é a segunda sessão de promoção de auto-compaixão. Enquanto que a sessão anterior teve como principal propósito mostrar brevemente a inutilidade do auto-criticismo, e principalmente introduzir alguns exercícios tranquilizadores pela ativação do sistema parassimpático, a presente sessão tem como principal objetivo a continuação da promoção da auto-compaixão, particularmente a sua estimulação através do corpo. Esta sessão assenta em duas competências desenvolvidas nas sessões anteriores: 1) consciência corporal, desenvolvida nas primeiras duas sessões de contacto com o corpo no presente através das práticas de mindfulness, e 2) a prática tranquilizadora, nomeadamente através do SRB e Loving-Kindness da sessão anterior. Com esta sessão, as participantes aprenderão a utilizar o corpo como elemento fundamental à experiência da auto-compaixão (toque tranquilizador), a identificar e experienciar compassivamente as emoções no corpo (soften, soothe and allow) e promoverá a aceitação compassiva (pausa auto-compassiva) que servirá de ligação à sessão seguinte focada na aceitação.

A sessão deverá iniciar com o SRB, no sentido de ativar o sistema parassimpático e produzir uma sensação de relaxamento e/ou contentamento, criando a textura emocional fundamental à introdução dos exercícios de auto-compaixão. O SRB desta sessão será ligeiramente diferente da sessão anterior, uma vez que adiciona a instrução sobre as motivações das participantes. Esta promoção da conexão com as motivações (a motivação para aliviar o sofrimento e cuidar com bondade do Eu) é fundamental, uma vez que a compaixão não é uma mera emoção, mas sim uma motivação.

Sente-se na sua cadeira, com os pés bem assentes no chão e adote uma postura direita, mas confortável. Encontre uma posição onde esteja confortável, mas alerta. Pode fechar os olhos. Tente relaxar os músculos faciais, e tente esboçar um ligeiro sorriso, um sorriso que seja confortável e que lhe transmita um sentimento de amabilidade e simpatia. Comece por notar a sua respiração. Apenas note o ar a entrar pelo nariz e a sair pela boca. Note cada inspiração e cada expiração (pausa 10s). Agora lentamente respire mais devagar, a um ritmo que permita que o corpo comece lentamente a abrandar. Procure respirar de um modo mais lento do que o habitual, mas a um ritmo que seja confortável. Pode, por exemplo, contar até 3 na inspiração, e novamente na expiração: (inspiração) 1, 2, 3; (expiração) 1, 2, 3. O objetivo é atingir uma respiração que seja confortável e tranquilizadora. Experimente diferentes ritmos até encontrar aquele que for mais confortável e lhe dê a sensação de que está a abrandar (pausa 20s).

Agora vamos apenas focar a nossa atenção na nossa respiração lenta e profunda. Apenas note o ar a entrar nos seus pulmões em direção ao diafragma. Note o diafragma a expandir-se e depois novamente o ar a sair pela sua boca. E se notar que a sua mente já se distraiu com algum pensamento ou barulho do exterior, lembre-se que isso é perfeitamente normal e expectável. Apenas note que isso aconteceu e gentilmente retorne a sua atenção à sua respiração (pausa 10s).

À medida que a sua respiração se torna mais lenta e profunda, foque-se especialmente na sua expiração, sentindo que se afunda cada vez mais na cadeira (pausa 10s). E se der por si preocupada se está a fazer bem o exercício ou se está ou não a funcionar consigo, apenas note esses pensamentos como pensamentos naturais, e gentilmente volte a dirigir a sua atenção para a respiração.

E agora, pense no que a traz a esta sessão, a este programa. O que a motiva a estar aqui? É para se ver livre da sua dor? É para aprender a lidar melhor com as suas emoções? Ou é algo mais global, por exemplo aprender a cuidar melhor de si? Procure dentro de si essa resposta. Tente descobrir o que a trouxe aqui. (pausa 20s).

E agora traga a vossa atenção à respiração. Tente associar essa respiração a um sentimento de paz e tranquilidade (pausa 10s). Agora tente colocar uma expressão facial que transmita esse sentimento de paz e tranquilidade. Talvez possa novamente esboçar um ligeiro sorriso ou uma expressão que faça mais sentido para si (pausa 10s). E quando estiver preparada, gentilmente abra os olhos e volte à sessão."

Partilha da semana

A partilha deverá passar pela normalização das dificuldades sentidas pelas participantes (e.g. encontrar a cadência da respiração), sempre reforçando a tentativa de realizar o exercício, assim como relembrando que o importante nestes exercícios é tentarmos e permanecermos no exercício independentemente do que a nossa mente nos diz. Para além disso, a partilha deverá ter como foco principal o relaxamento e sensação de tranquilidade provocada pela respiração tranquila.

É importante o/a terapeuta ouvir ativamente a partilha das participantes, normalizando as dificuldades, reforçando o compromisso comportamental com as tarefas e modulando uma relação com as experiências internas baseada na observação não-reativa e não-ajuizamento, tratando os produtos da mente como entidades diferentes do Eu (e.g. "repare que a sua mente lhe disse....", "teve o pensamento....."). É importante estar atento/a, ainda, aos obstáculos à realização das tarefas da semana, as quais poderão ser conceptualizadas em: obstáculos ecológicos (e.g. esquecimento, organização, tempo, divisão de tarefas, conflito com a vida diária e horários de trabalho e familiares) ou obstáculos internos (e.g. o pensamento de que o exercício não serve para nada, de que não funciona com a participante, de que é aborrecido, de que não consegue fazer o exercício). Estes obstáculos deverão ser discutidos de forma integrada, mas tendo em atenção que, embora interligados, são distintos, podendo ser útil a co-construção de resoluções diferenciadas quando os obstáculos são ecológicos (e.g. colocar um alarme a lembrar para fazer a tarefa) ou internos (e.g. notar o que a mente diz, e ainda assim realizar a tarefa). Estar particularmente atento/a ao auto-criticismo, promovendo a identificação e distanciamento desses produtos da mente (e.g. "note o que a sua mente lhe disse", "veja como é difícil simplesmente notarmos sem ajuizarmos", "repare que a sua mente lhe disse que X").

Introdução ao toque tranquilizador

"Na sessão anterior vimos que por vezes quando estamos a passar por situações difíceis, ou de um modo geral quando estamos em sofrimento (por exemplo, quando estamos com dor), a nossa mente diz-nos coisas desagradáveis: às vezes diz-nos que não somos suficientemente funcionais, que somos menos do que os outros porque o nosso corpo nos limita, às vezes diz-nos que não temos o direito de descansar e cuidar de nós. E vimos que essa forma de lidarmos connosco e com as nossas dificuldades não é útil, na medida em que não diminui o nosso sofrimento, muito pelo contrário: adiciona ainda mais sofrimento. Por exemplo, para além da dor que sentimos, ainda nos causa sofrimento adicional tudo o que a nossa mente nos diz sobre a dor, sobre o nosso futuro, sobre o nosso valor ou falta dele, etc. E, como vimos, o que é interessante é que por vezes somos muito mais duros connosco do que seriamos com alguém que amamos e que estivesse, tal como nós, em sofrimento. O que temos trabalhado, nomeadamente desde a última sessão, é uma alternativa a esse criticismo. Ou seja, o objetivo nestas sessões é aprendermos a tratar-nos de forma tão carinhosa e calorosa como o faríamos com alguém que amamos. Nós chamamos a essa postura calorosa e cuidadora de "compaixão". No fundo, termos compaixão por alguém que amamos em sofrimento é ligarmo-nos a esse sofrimento e sentirmos uma forte motivação para aliviar esse sofrimento. Isto significa que quando falamos de compaixão, falamos de algo que pode ser experienciado em diferentes direções, ou em diferentes fluxos: podemos ser compassivos com os outros, podemos receber compaixão dos outros, e podemos ser compassivos connosco próprios. Um dos objetivos deste programa é precisamente que aprendamos a cuidar de nós e a tratar-nos de forma calorosa e compassiva, como faríamos com alguém que amamos. Porque, na verdade, todos nós temos isso dentro de nós: essa motivação para aliviar o sofrimento e cuidar de quem amamos. Por exemplo, pensem nos vossos filhos, ou sobrinhos, ou alguém que amam muito. Pensem como se comportaram quando essa pessoa esteva em sofrimento: criticaram, desvalorizaram, disseram "isso não é nada, não tens razão para te queixar!"? Ou, pelo contrário, ouviram, estiveram presentes, cuidaram? [discussão 10seg]. E o nosso corpo, que tantas vezes nos prega partidas, é um elemento fundamental nesse cuidar e nesse calor compassivo. Há muitos estudos que mostram o papel fundamental do contacto pele-com-pele entre, por exemplo, a mãe/pai e o filho. É um elemento fundamental de apaziguamento. Por exemplo, o toque tem um papel fundamental na tranquilização: um pai que acaricia a cara do filho quando este está triste, ou a mãe que pousa a mão na barriga do filho indisposto. Mas a verdade parece ser que construímos uma sociedade que acredita que quando somos adultos deixamos de precisar desse cuidado e calor, ou de que podemos cuidar dos outros, mas não de nós. Mas esse efeito tranquilizador do contacto, do toque, continua a ser fundamental durante toda a nossa vida. Por exemplo, todos nós já experienciámos o poder tranquilizador de um abraço de alguém que amamos quando estamos em sofrimento. Seria muito útil se nós conseguíssemos treinar esse autocuidado e autocompaixão, nomeadamente através do nosso próprio toque. Com o próximo exercício vamos experimentar a treinar essa capacidade de usar o nosso próprio corpo e toque para oferecer esse calor a nós próprios, como forma de cuidarmos de nós e nos tranquilizarmos em situações difíceis".

Notas:

“Sente-se confortavelmente na sua cadeira, numa posição direita, mas relaxada. E como é habitual nestes exercícios, comece por notar a sua respiração. Simplesmente notar a respiração. Note o ar a entrar pelas suas narinas, note a sua temperatura, e note o ar a sair pela boca. Por enquanto, tente não interferir com a cadência da respiração, simplesmente note a respiração e note em que partes do corpo a sente com maior nitidez: é no nariz? É no diafragma? É no peito? Simplesmente note. [pausa 20s] E agora tente respirar com maior profundidade, contando para si 1, 2, 3 na inspiração, e 1, 2, 3 na expiração, diminuindo ligeiramente a cadência da respiração. Já sabe que a nossa mente não pára, portanto é possível que durante o exercício ela faça comentários sobre o exercício, sobre em que consiste, qual a utilidade de tudo isto, ou até que deambule e faça uma lista de tarefas que terá que fazer após esta sessão. É normal, é o que as mentes estão programadas para fazer. Quando notar que a mente está a fazer isso, gentilmente volte ao exercício, e volte a focar a atenção na respiração.

Este exercício poderá ser particularmente útil num momento difícil e de sofrimento. Neste momento, se estiver a passar por uma situação difícil, ou se tiver dor ou desconforto em alguma zona do corpo, tente fazer este exercício e seguir estas instruções. Delicadamente, coloque uma mão sobre o seu coração, sentindo simplesmente a pressão suave e o calor da sua mão. Se preferir, coloque ambas as mãos sobre o coração. E sinta a natural subida e descida do seu peito, à medida que inspira e expira. Sinta o calor que emana das suas mãos para o seu peito (pausa 10s). Se não sentir conforto, pode experimentar outras partes do seu corpo. Por exemplo, se houver uma zona do seu corpo neste momento com dor, coloque as suas mãos sobre essa zona, e simplesmente note as sensações (pausa 10s). Outras pessoas sentem mais conforto e tranquilidade ao colocar as duas mãos sobre a barriga, outras preferem sentir as mãos na cara, outras preferem repousar as mãos no colo, uma sobre a outra, em concha. Pode passar o próximo minuto a experimentar as diferentes sensações e a explorar qual a zona do seu corpo no qual o seu toque é mais tranquilizador. Se tiver dificuldade em sentir seja o que for, não se preocupe. Simplesmente continue a explorar e a fazer o exercício (pausa 30s).

Quando se sentir preparada, pode abrir os olhos e voltar à sala.”

Partilha

A partilha deverá centrar-se no que as participantes foram capazes de notar ao longo do exercício, descobertas que tenham feito sobre a natureza da mente e a relação entre a mente e o corpo (por exemplo, o que notaram que acontecia à sensação física de desconforto quando pousavam a mão na zona do corpo onde havia desconforto, o que notaram quanto à sensação física desde o início do exercício até ao final do mesmo). É particularmente importante o/a instrutor/a guiar a discussão no sentido da descoberta da impermanência da experiência (mental e sensorial). Deve ainda ser abordado, não só o conteúdo autocrítico/avaliativo das cognições ao longo do exercício, como também a forma como as participantes se relacionaram com essa experiência. Nesta fase do programa, é esperado que as participantes consigam notar essa atividade mental e experienciá-la com algum distanciamento. Esse distanciamento/desfusão deverá ser reforçado pelo/a instrutor/a ao longo da partilha. O/a instrutor/a deverá, ainda, validar eventuais dificuldades sentidas ao longo do exercício, co-construir soluções por forma a potenciar o seu efeito (nomeadamente reforçar a importância de praticar a competência), e reafirmar a disponibilidade permanente do toque tranquilizador em momentos de sofrimento (“o nosso corpo é um lugar seguro e no qual podemos repousar e obter tranquilidade, onde quer que estejamos”). Poderá ser útil, por fim, fundamentar o seu efeito tranquilizador enquadrando-o como output comportamental de uma longa história filogenética de vinculação, na qual o toque produz uma cascata de reações neurofisiológicas (e.g. secreção de oxitocina) associadas a um sentimento de tranquilidade, relaxamento e contentamento, referindo, inclusivamente, a potencial natureza opiácea dessas reações neurofisiológicas.

Introdução ao Suavizar, Tranquilizar e Permitir (*soften, soothe and allow*)

A importância do que temos visto nesta sessão e na sessão anterior é que há uma verdade inultrapassável: não é possível viver sem experienciar algum tipo de sofrimento. Estar vivo implica passar por determinadas dificuldades, por perdas de pessoas que amamos, por desilusões, por doenças. Estamos todos no mesmo barco na medida em que mais cedo ou mais tarde vamos todos passar por algum tipo de dificuldade e vamos sofrer. Não podemos evitá-lo. Mas apesar de não podermos evitar, isso não significa que não possamos treinar a nossa mente para nos ajudar a navegar esses sentimentos e dificuldades de forma mais calorosa, mais cuidadora, com menos revolta e com menos auto-criticismo. Porque, enfim, é uma competência que para a desenvolver temos que ativamente a treinar. Como vimos, a nossa mente está programada para resolver problemas, o que implica uma certa tendência para fazermos avaliações, ajuizamentos e muitas vezes sermos críticos quando achamos que estamos a falhar ou longe de atingir e nos comportarmos como devíamos. Por exemplo, quantas de vós ficam revoltadas consigo próprias por ter dor e sentir que não pode fazer tudo o que gostaria? [discussão 5min]. Portanto, o que nós vemos é que para além da dor e do desconforto físico, a nossa mente muitas vezes adiciona ainda uma outra camada de sofrimento que advém da forma como nos tratamos e como lidamos com os nossos pensamentos, com as nossas emoções, etc. A boa notícia é precisamente que é possível treinarmos a nossa mente para nos auxiliar nesses momentos difíceis. No fundo, aprendermos a ser o ombro caloroso onde podemos repousar. Gostaria de vos propor um exercício que poderá ajudar-vos a treinarem essa competência.

Notas:

“Este exercício é particularmente útil para quando experienciamos emoções difíceis. Portanto, peço-lhe que pense numa situação da sua vida – pode ser recente ou não – em que se sentiu triste ou ansiosa, zangada ou irritada. Escolha uma situação moderadamente desconfortável, para que possa experienciar esse desconforto, mas sem ficar esmagada por ele. Traga essa situação à sua mente, sentindo, o melhor que conseguir, essa emoção difícil.

Comece por respirar profundamente para libertar alguma tensão que possa estar a sentir neste momento. Poderá fazê-lo três vezes: inspirando, expirando (3x). Agora deixe que a sua respiração volte ao normal. E simplesmente note a sua respiração. Note onde sente a respiração com mais nitidez. Simplesmente note a respiração, a sua inspiração e expiração (pausa 10s).

E agora peço-lhe que pense nas circunstâncias ou na situação que lhe causou ou está a causar essa emoção negativa, que a deixou chateada, irritada, triste ou ansiosa – qualquer que tenha sido a emoção difícil. Talvez seja algo que sinta sobre si, algo em si que não goste, ou um erro que tenha cometido. Ou pode simplesmente ser uma situação que é muito difícil de gerir e com a qual tem que lidar neste momento. Procure, o melhor que conseguir, não ficar demasiado perdida na história, mas lembre-se dela o suficiente para a trazer aqui (pausa 15s). O que vamos fazer agora é trabalhar com essas emoções no corpo, e ver se conseguimos trazer algum conforto e tranquilidade à emoção através do corpo. O que é importante é que assuma também neste exercício a atitude de cuidar de si, e garantir o seu bem-estar e segurança. Se em algum momento a experiência for significativamente dolorosa para si, de forma consciente pode escolher parar o exercício, ou largar e colocar a sua atenção na respiração, inspirando e expirando, e quando se sentir preparada, retomar o exercício (pausa 10s)

Então, gostaria que tentasse perceber que sensações físicas sente associadas à situação. Certamente haverá mais do que apenas uma sensação, por isso tente colocar a sua atenção curiosa para o corpo, observando as sensações e a zona do corpo onde elas se localizam. Em que parte do corpo aquela sensação está mais presente? É um aperto na garganta? É um peso atrás dos olhos? É um murro no estômago? É um calor? É uma dormência? Um formigueiro? É um calafrio? Simplesmente descreva na sua mente o que notou (pausa 10s). Veja em que parte do corpo aquela emoção intensa se manifesta fisicamente (pausa 10s). Agora, convido-a a nomear a emoção que está presente nessa zona do seu corpo. Por exemplo, poderá dizer “noto que estou com raiva”, ou “aqui está ansiedade”, “aqui está tristeza”. Que emoções consegue identificar? (pausa 10s) Se for difícil identificar a emoção, pode dizer “isto é confuso”, “aqui está uma mistura de emoções” (pausa 10s). Claro que por essa ser uma emoção difícil, a nossa resposta automática é querer resistir, querer afastá-la. Mas infelizmente isso só torna tudo ainda mais doloroso. Portanto, gostaria de a convidar a estar consciente da emoção no corpo, da zona do corpo onde essa emoção se manifesta de forma mais intensa (pausa 5s). E agora, convido-a a tentar suavizar, o melhor que conseguir, essa zona do corpo. Relaxando à volta dessa zona, como se a sua intenção fosse envolver essa zona com uma toalha quente (pausa 5s). O objetivo não é parar com o desconforto, nem eliminá-lo, mas sim amolecê-lo (pausa 25s). Suavizando (pausa 5s). Suavizando (pausa 5s). Suavizando (pausa 5s). Agora convido-a a colocar uma mão, ou as duas, no local do corpo onde está a sentir essa emoção difícil, permitindo que o toque a suavize, e deixando que o calor que emana da sua mão possa fluir por todo o seu corpo, trazendo uma onda de suavidade calorosa e gentil. Tranquilizando (pausa 5s). Tranquilizando (pausa 5s). Tranquilizando (pausa 5s). Se preferir, talvez possa acariciar um pouco essa zona do corpo (pausa 5s). E à medida que gentilmente toca nessa parte do corpo, poder dizer a si própria “eu reconheço esta emoção, é uma emoção humana, e qualquer pessoa que tivesse passado pelo mesmo, sentiria o mesmo que eu” (pausa 10s). Permita-se sentir essa emoção. Não está a reagir de forma exagerada, é simplesmente o que está a sentir e não tem culpa de o sentir: é uma resposta natural. Suavizando, tranquilizando (pausa 5s).

E agora, veja se consegue permitir que a sensação no corpo simplesmente esteja presente, sem tentar afastá-la nem diminuí-la. Simplesmente deixando-a estar lá (pausa 5s). Veja se consegue criar espaço em si para permitir que essa sensação no corpo permaneça consigo uns segundos. Você está segura neste momento, não há problema em sentir aquela sensação no corpo. Veja se consegue deixar a sensação estar lá, tal como ela é (pausa 25s). Não queira que ela seja diferente: ela é apenas o que é – uma sensação (pausa 5s). Permitindo (pausa 5s). Permitindo (pausa 5s). Permitindo (pausa 5s).

Agora convido-a a fazer o seguinte: se a emoção continuar com a mesma intensidade, ou se aparecer outra emoção mais intensa, simplesmente repita os 3 passos que fizemos neste exercício: localize a sensação no corpo, suavize essa sensação à volta da zona no corpo por forma a não ficar demasiado tensa ou desconfortável. Tranquilize-se a si e à zona do corpo onde a emoção se manifesta fisicamente com o toque tranquilizador, e por fim simplesmente permita que essa sensação esteja presente no corpo, sem a tentar alterar, modificar ou eliminar. Não há problema, está segura, pode sentir tudo isso (pausa 15s). Se a sua mente for levada para pensar nas circunstâncias ou na situação associada a essa emoção difícil, não há problema, é natural a nossa mente fazer isso, ficar presa a uma situação. Quando notar isso, simplesmente tente trazer novamente a sua atenção para o corpo, para as sensações no seu corpo que manifestam o que está a sentir (pausa 15s). Suavizando, tranquilizando e permitindo (pausa 15s). Suavizando, tranquilizando e permitindo (pausa 15s).

E agora largue e coloque esta prática em pano de fundo, voltando a tomar consciência da sua respiração, notando o seu corpo como um todo, e permitindo que a experiência que está a ter neste momento possa ser tal como ela é (pausa 10s). E, de forma gentil, quando estiver preparada, abra os olhos, terminando assim a prática".

Notas:

Partilha

A partilha após a prática deverá centrar-se na experiência das participantes ao longo das três fases do exercício: suavizar, tranquilizar e permitir. Caso haja participantes que não tenham conseguido realizar o exercício por terem evocado uma memória demasiado difícil, é fundamental que o/a instrutor/a valide essa dificuldade. Poderá ser usado a metáfora "aprender a nadar", normalizando a dificuldade sentido ao dizer que "da mesma forma que não podemos aprender a nadar em mar alto, no meio de um temporal, também é muito difícil aprendermos a suavizar, tranquilizar e deixar estar emoções muito dolorosas. É importante começarmos a aprender a nadar numa piscina onde temos pé, perto da borda da piscina para que possamos agarrar-nos caso nos sintamos a afogar. Portanto, faz todo o sentido que tenha sido muito difícil para si fazer o exercício com uma emoção muito dolorosa. Não tem mal, pode sempre retomar este exercício ao longo da semana, uma vez que terão o áudio". Se é verdade para todas as práticas, é-o ainda mais claramente com este exercício: deverá ser lembrada a importância das práticas diárias entre sessões: "tal como não somos capazes de tonificar um músculo indo ao ginásio apenas 1x por semana, também não vamos conseguir desenvolver esta competência de suavizar, tranquilizar e deixar estar uma sensação ou emoção difícil sem lhe reagir se não praticarmos e se não a treinarmos. As sessões são importantes, mas o trabalho real faz-se durante a semana, entre sessões".

Notas:

Partilha

A partilha deste exercício deverá passar pelos mesmos pontos da partilha do Loving-Kindness da sessão anterior. Poderá ser, contudo, continuada a discussão sobre a dificuldade sugerida pela literatura em relação à maior dificuldade em receber compaixão dos outros e auto-compaixão, do que em dar compaixão aos outros (sobre este tópico, ver literatura relativa aos "Medos da Compaixão")

Síntese

1) Nesta sessão continuámos a desenvolver competência auto-compassivas através de exercícios experienciais;
2) O corpo é um porto seguro no qual podemos repousar e obter tranquilização em momentos de sofrimento;
3) A importância do toque na produção de uma resposta apaziguadora alicerçada numa história filogenética (particularmente entre mamíferos) de vinculação;
4) A importância de desenvolver auto-compaixão como forma de obter tranquilização em momentos de sofrimento e dor.

Tarefa para a semana

- Alternar 3 vezes "body-scan", 4 vezes "suavizar, tranquilizar e permitir"
- Quando realizar "body-scan", realizar, também, "Loving-Kindness".

Notas:

5

ACEITAÇÃO

há mais para aceitar do que apenas a dor

Mindfulness focado no corpo: breve exercício

Esta sessão pretende solidificar uma postura de abertura à experiência, não só à dor, mas toda a experiência interna e particularmente a emocional. Esta sessão pretende promover a disponibilidade para estar com a experiência desagradável (e que habitualmente respondemos com evitamento e controlo), no sentido de nos aproximarmos de uma vida valorizada. Esta é, portanto, uma sessão de aceitação da experiência que promoverá a postura de abertura necessária para as sessões seguintes de compromisso com uma vida valorizada.

"Encontrem uma posição confortável, com os pés bem assentes no chão, numa posição que vos dê conforto e estabilidade (pausa 5s). Gentilmente e calmamente tragam a vossa atenção para a vossa respiração. Não tentando manipular a respiração de alguma forma, mas simplesmente experienciando as sensações físicas da respiração, à medida que o ar se move para dentro e para fora do corpo pausa (pausa 5s). E dirijam a vossa atenção para a zona da barriga, para o abdómen, sentindo as sensações nessa zona à medida que o ar entra no corpo e o abdómen se expande; e à medida que o ar sai do corpo e o abdómen se retrai; e simplesmente sigam os movimentos rítmicos da vossa barriga a cada respiração (pausa 5s). O levantar da barriga na inspiração e o baixar na expiração. E a cada expiração deixem que o vosso corpo se torne mais pesado, à medida que se afunda ligeiramente na cadeira. Simplesmente tragam a atenção para cada respiração. Inspiração... e expiração... Uma a seguir à outra (pausa 10s).

E agora, notem o contacto com o chão, tragam a vossa atenção para os dedos dos pés. Tentem notar quaisquer sensações que estejam presentes nessa parte do corpo. Podem notar sensações de vibração, ou comichão, calor ou frio. O que quer que seja, não é importante, mas simplesmente sintam os dedos tal como eles são. Lembrem-se que o importante é a atenção e não a sensação. E, portanto, pouco importa se têm ou não sensações, mas o que importa é prestar atenção ao que está presente nessa parte do corpo. Simplesmente tenham consciência de onde está a vossa atenção (pausa 10s). Sintam o dedo grande, o dedo pequeno. E talvez os dedos intermédios. Não os tentem mover, mas simplesmente tentem senti-los. Se os moverem também não há problema. A ideia é simplesmente notarem as sensações nessa zona do corpo (pausa 15s).

E agora, quando se sentirem preparadas, tragam a vossa atenção para as pernas inferiores. Notem que sensações estão presentes: se calor, se frio, se formigueiro, se picada. Qualquer que seja a sensação, simplesmente note (pausa 15s). E quando se sentirem preparadas larguem também esta parte do corpo. E se houver uma outra parte do corpo que esteja a chamar a vossa atenção, por exemplo por haver uma sensação desconfortável, simplesmente notem isso e tão bem quanto consigam, voltem a trazer a vossa atenção para as pernas, para a parte inferior das pernas (pausa 10s). E agora, deixem que a vossa atenção se mova para os joelhos. Sintam os joelhos, as rótulas, os lados e a parte de trás. Tentem notar as sensações, tão bem quanto consigam (pausa 15s).

E, novamente na próxima expiração, deixem o joelho e movam a vossa atenção para a região da coxa, desde a zona acima do joelho até à zona da virilha. Podem sentir sensações mais à superfície ou em zonas mais profundas. Simplesmente notem as sensações na vossa coxa, deixando que esteja tão relaxada quanto possível (pausa 15s).

Quando se sentirem preparadas, inspirem, e quando expirarem deixem que a vossa coxa se dissolva na vossa atenção, e agora foquem a vossa atenção para o fundo das costas. E experiencie quaisquer sensações nesta zona. Esta é uma região que por vezes nos dá problemas. Pode haver sensações um pouco intensas de dor ou desconforto. Notem quaisquer que sejam as sensações presentes. Simplesmente notar. Notem as sensações nessa zona. Tentem simplesmente notar, sem julgar como “boa” ou “má”. Simplesmente notando as sensações: é uma sensação de ardor? De pressão? E é em que zona da lombar? Mais à esquerda? À direita? No centro? Simplesmente note a sensação. E note o que a sua mente comenta e diz acerca da sensação. Simplesmente note isso, nessa característica da nossa mente de comentar e julgar e avaliar. E volte a atenção para a sensação física (pausa 15s).

Na próxima expiração, movam a vossa atenção para a zona superior das costas. E sintam as sensações presentes aí. Talvez sintam a vossa caixa torácica a expandir com a inspiração. Ou as sensações de contacto da omoplata com a cadeira (pausa 5s). E, novamente, se houver alguma sensação desconfortável, simplesmente notem isso, notem o que a mente diz, comenta sobre isso, e voltem gentilmente para a sensação física (pausa 15s). Movam a vossa atenção agora para a barriga. Talvez sentindo o movimento da respiração nessa zona. Permitam que a vossa atenção abranja também a zona do peito. Sentindo os movimentos do vosso peito a expandir com a inspiração e a contrair com a expiração. E se conseguirem podem também notar os batimentos do vosso coração. Sintam o vosso peito e a vossa barriga, toda a parte da frente do vosso tronco (pausa 15s).

E quando se sentirem preparadas, levem a vossa atenção até às pontas dos dedos da mão. E vamos sentir as duas mãos ao mesmo tempo. Simplesmente tente notar as sensações, ou ausência de sensações, nas pontas dos dedos. Podem sentir pulsações, calor... Talvez consigam sentir cada dedo separadamente. Permitam que a vossa atenção se estenda para as palmas das mãos e as costas das mãos. E os pulsos (pausa 10s). E agora podem notar as sensações nos antebraços. E nos cotovelos. Incluam também a parte superior dos braços e os ombros. Muitos de nós acumulamos tensão nessa zona. Notem quaisquer sensações presentes aí, particularmente nos ombros. Quaisquer que sejam (pausa 15s). Na próxima expiração larguem a atenção dos braços e dos ombros, e dirijam a atenção para o pescoço. Para a parte de trás do pescoço, e para a parte da frente. Talvez sentindo as sensações da respiração nesta zona, ou as sensações de engolir. Novamente, se notarem desconforto ou tensão na zona da cervical ou próximo da parte de trás do pescoço, simplesmente notem isso, e tentem explorar a sensação com curiosidade, como se fossem um cientista a estudar essa zona: qual é a sensação? É de ardor? É de pressão? É em toda a zona, ou é mais forte em uma parte específica? E notem na tendência natural e automática para relaxarmos ou nos movermos para diminuir o desconforto. Simplesmente notem isso (pausa 15s). Se a sensação for demasiado intensa, podem voltar por momentos à respiração, sentindo o ar a entrar e a sair do nariz. A vossa respiração é um lugar seguro que está sempre presente, ao qual podem recorrer quando a experiência for demasiado intensa. Não se trata de tolerar, mas se ir à tona respirar um pouco, para que possamos voltar a trazer a nossa atenção À experiência dolorosa.

À medida que chegamos ao fim desta prática tirem um momento e talvez sintam gratidão por ter tirado tempo para vós próprias desta forma (pausa 20s). Tragam a vossa atenção para o corpo e lentamente comecem a mexer os dedos das mãos, e os dedos dos pés. Estiquem os braços acima da cabeça e alonguem todo o corpo (pausa 30s)”

Notas:

Partilha da semana

A partilha deverá guiar a experiência de que: 1) a atenção altera a experiência (quando a nossa mente está fusionada com pensamentos e preocupações, deixamos de notar o corpo); 2) a mente naturalmente (ou seja, involuntariamente) deambula (o objetivo do exercício não é a mente “parar”, nem relaxar, mas sim notar a experiência no momento presente tal como ela é, assim como notar a sua impermanência); 3) é possível ter um pensamento ou emoção e simplesmente notar, sem ter que lhe reagir; 4) apesar de podermos relaxar, este não é o objetivo destes exercícios, mas sim o de estarmos com a experiência tal como ela é, quer seja positiva/agradável, negativa/desagradável ou neutra.

Notas:

Abertura à experiência: descrever vs avaliar

"Já vimos nas sessões anteriores que a nossa experiência de dor é muito mais do que a sua parte física. Ou seja, que quando temos dor não é apenas o estímulo físico que torna a experiência difícil, mas também o que nós pensamos (o que a nossa mente diz sobre aquela sensação – que é horrível, que é insuportável, que nunca vai passar, que nunca vamos voltar a ser como antes, etc) e as emoções que surgem (sentimo-nos tristes, frustrados, em baixo, ou até com raiva, revolta, etc). E nós não temos culpa disso: não temos culpa de pensarmos as coisas que pensamos, ou de nos sentirmos como nos sentimos. Certamente que se pudéssemos decidir, decidiríamos não ter esses pensamentos e emoções. Mas não é assim que a nossa mente funciona, e, portanto, essas experiências internas surgem automaticamente. Como vimos com o exercício da girafa – lembram-se? -, quanto mais tentamos afastar e não as ter, pior: mais intensas ficam. E nós temos feito alguns exercícios que servem para treinarmos a nossa capacidade de simplesmente notar e estar com as nossas experiências, sem lhes reagir nem as criticar e avaliar. Sem dúvida que é difícil, porque é como remar contra uma maré forte. Mas é possível, com treino e prática, aprendermos a estar com a experiência, por exemplo com a nossa dor, por muito desconfortável que ela seja. E o primeiro elemento essencial para estarmos com a nossa dor é aprendermos a descrever a nossa dor, em vez de a avaliarmos. E a nossa mente por vezes prega-nos partidas porque confunde uma "descrição" com uma "avaliação". Vamos fazer um exercício rápido: peço-vos que olhem para as vossas mãos direitas. Para as palmas das mãos. Vou pedir a cada uma, de cada vez, que descreva a sua mão" [cada participante deverá escolher um elemento descritor da sua mão. O/a facilitador/a deverá promover a descoberta de que muitas vezes utilizamos avaliações para descrever objetos]. "Reparem que algumas das coisas que disseram são de facto descrições, mas outras são avaliações. Dizermos que um dedo é "gordo" ou "maior do que", ou que é "feio", etc é na verdade uma avaliação, que nós assumimos como características pertencentes ao objeto – neste caso à vossa mão. Mas poderá chegar uma pessoa aqui e discordar e avaliar de outra forma. O que quero dizer com isto é que as características que fazem parte do objeto são aquelas que eu consigo descrever e que qualquer pessoa que tentasse descrever diria o mesmo. Por exemplo, olhando para a minha mão, eu consigo dizer que tem umas saliências com formas circulares, posso dizer que tem rugosidade, que tem algumas veias visíveis. Tudo o resto serão avaliações minhas! Se está mais ou menos vermelha, se é grande ou pequena, se os dedos são alinhados ou tortos, se é uma mão bonita ou feia, etc. E nós habitualmente fazemos isso com muitas coisas, inclusivamente com as nossas sensações físicas. Por exemplo, pedem-nos para descrevermos uma sensação física dolorosa e nós respondemos com "é horrível", "é insuportável", "é uma dor muito grande". E não quer dizer que não sintamos a dor exatamente assim. Mas descrevê-la seria dizer onde ela se localiza (na zona lombar? Mais à direita, centro ou esquerda?), Qual a sensação (picada? ardor? dormência? formigueiro? etc). E é o que vou pedir-vos para fazerem 2 a 2. No próximo exercício gostaria que se juntassem a uma colega de grupo, e que uma de cada vez tentasse descrever uma sensação física. Se tiverem a sentir algum desconforto físico, foquem-se nessa sensação e descrevam. Se não sentirem nenhum desconforto, descrevam apenas uma sensação física que estejam a notar. E depois troquem. Estejam atentas às sensações e à forma como as descrevem. Vamos fazer isso em 10-15minutos.

Notas:

Partilha

Durante a partilha, o terapeuta deve validar a dificuldade, normalizando-a como inerente ao funcionamento da mente, e reforçar a tentativa, assim como exemplos de descrição. O terapeuta deve, ainda, reforçar sempre que as participantes identificam algo como "avaliação". "Como foi o exercício? Conseguiram descrever em vez de avaliar? O que acharam? Que dificuldades encontraram?". É particularmente guiar a descoberta de que a experiência emocional, cognitiva e eventualmente sensorial não é a mesma quando "descrevemos" e quando "avaliamos": quando é feita uma descrição (i.e., sem avaliações, ajuizamentos, criticas, etc), há um estado de abertura para simplesmente observar a experiência, sem o ruído das avaliações e ajuizamentos.

Notas:

Introdução à aceitação

“De facto, esta capacidade de notarmos a experiência tal como ela é, sem lhe adicionarmos as nossas avaliações, os nossos juízos, é um elemento fundamental para conseguirmos estar com a experiência e a conseguirmos tolerar melhorar. E a importância de tolerarmos a nossa experiência – a dor, mas não só: a vida não é sempre fácil, e é inevitável que venhamos a sofrer – está ligada à nossa capacidade de ter uma vida plena, sem desistir das coisas que são importantes para nós. Habitualmente quando temos um problema – de saúde, mas não só -, vamos colocando a nossa vida em pausa, vamos nos afastando das coisas que nos dão prazer, que nos fazem sentir vivos e que dão sentido à nossa vida, e a nossa vida passa a estar quase totalmente direcionada para diminuir o problema de saúde. Por exemplo, muitas pessoas com dor crónica sentem que a vida delas se limita a tentarem diminuir a dor ou fazer com que ela não aumente. E é compreensível, porque ninguém gosta de sofrer. Mas o que vamos esquecendo é que nós somos mais do que a nossa doença, do que a nossa dor, e que há aspetos da nossa vida que vamos esquecendo, mas que nos trariam muita saúde emocional e não só. Por exemplo, se eu vos perguntasse o que vos impede de ter a vida que gostariam de ter, possivelmente muitas de vós diriam a dor. Mas a pergunta que eu faço é: e se fosse possível avançarmos no sentido de uma vida mais valorizada, mesmo estando a dor presente? Isto não significa que façamos as coisas exatamente como as faríamos sem a dor, e mais importante: isto não significa que faremos facilmente e sem sofrimento. Mas e se fosse possível aprendermos a avançar, a seguir em frente, estando dispostos a fazê-lo mesmo com a dor? E reparem, eu não estou a propor que simplesmente aguentem a dor. Nem que finjam que ela não existe. Claro que se isso fosse possível, vocês já o teriam feito. O que estou a propor é que notem a dor, a sensação física, parem uns minutos para a notar e descrever, e que reconheçam que podem continuar mesmo com essa dor. No fundo, que a vossa vida é mais importante do que a vossa dor. E o que eu estou a propor aqui não é de todo revolucionário. Nós fazemos isso inúmeras vezes ao longo da nossa vida, e nem nos dados conta. Por exemplo, alguém tem filhos? Ter filhos implica fazermos exatamente o que estou a propor: primeiro a gravidez, os enjoos, depois as dificuldades em andar, dormir mal sem posição, repetidamente na casa de banho, depois o parto, as dores, depois as noites sem dormir, dificuldades na amamentação, depois as preocupações com a saúde, quando caem, quando ficam doentes, etc etc etc. E reparem que, pondo na balança, decidiram que valia a pena. Estou certo que se eu vos perguntasse, vocês não diriam que é fácil. Mas o que fizeram foi pôr na balança essa dificuldade e a vida que queriam para vocês, na qual ser mãe era algo importante para vocês. O que propomos é que aprendam novas formas de se relacionarem com a dor, de criarem um espaço em vós no qual a dor pode existir e ainda assim consigam avançar no sentido da vida que querem e valorizam. Isto implica não só estar com a sensação física, mas com os pensamentos e principalmente com as emoções difíceis que vamos sentindo ao longo da nossa vida, aprendendo a estar com elas sem nos enredarmos nem bloquearmos".

Notas:

Aceitação das emoções: breve exercício

“Sente-se confortavelmente na sua cadeira, com uma postura direita, mas não rígida. Dirija a sua mente para a respiração, fazendo várias respirações profundas. Deixem o ar fluir para todo o interior do diafragma, sem qualquer pressão e sem forçar, e gentilmente deixem o ar fluir para fora novamente. Repita mais uma série de respirações profundas ficando consciente de uma maior sensação de relaxamento e calma, à medida que inspira o ar (pausa 15s). Agora, deixe a sua respiração alcançar o seu ritmo natural e confortável próprio. Foque a sua atenção na sensação da respiração à medida que o ar entra pelo nariz, desce pela garganta até à zona abdominal, e sai novamente. Note as sensações que emergem (pausa 15s). Agora pense em alguma coisa que a preocupe, alguma coisa que desperte habitualmente emoções negativas (pausa 10s). Pode ser uma preocupação com que esteja há dias. Pode ser uma situação que tenha ocorrido recentemente e que a tenha deixado magoada ou triste ou frustrada. Ou pode simplesmente ser preocupação com a sua saúde (pausa 10s). Quando tiver esses pensamentos bem presentes na sua mente, note que alterações é que acontecem no seu corpo e que emoção está presente (pausa 10s). Que sensações sente no seu corpo? Tente localizar exatamente no corpo essas sensações. Note qual a sensação mais saliente (pausa 10s). À medida em que este exercício continua, as sensações e sentimentos no seu corpo vão mudando, é normal. Poderá haver sensações e sentimentos agradáveis (e.g. relaxamento, calma, paz). E poderá haver algumas sensações desagradáveis (e.g. aborrecimento, frustração, ansiedade, ou dor nas costas). Veja se consegue permitir que essas sensações ou sentimentos permaneçam exatamente como estão (pausa 10s). E não tente mudar essa sensação, independentemente de estar agradável ou desagradável. Observe cuidadosamente essas sensações e mentalmente repita para si “eu posso estar com isto, posso estar com estas sensações, posso aceitar estas sensações”. Tente identificar as sensações no corpo onde elas são mais fortes, mais intensas. É também possível a tendência de resistir, querer afastar, contrair essa parte do corpo para que a sensação pare. Tente simplesmente observar essas sensações, sem qualquer julgamento. E repita para si mesma “não há problema em sentir isto. O que quer que isto seja, eu consigo estar com isto. Vou deixar-me sentir isto tal qual como é” (pausa 10s).

Isto não é uma técnica de respiração. Não está a tentar relaxar-se. O objetivo é treinar o permitir-se sentir o que quer que esteja a sentir, sem lutar contra isso. Assim, se houver um sentimento desagradável, nomeie-o silenciosamente, dizendo para si mesma "aqui está o aborrecimento" ou "aqui está a ansiedade". Simplesmente note (pausa 10s).

Se as sensações desaparecerem, volte novamente a ir buscar os pensamentos ou o assunto que vos preocupam, e observe novamente o seu corpo, para ver que alterações é que sente (pausa 15s).

Agora, volte a sua atenção para a respiração, estando consciente do ar fresco na ponta do seu nariz enquanto inspira e do ar morno à medida que expira. Agora, torne-se consciente do seu corpo neste local. Comece a visualizar a sala à sua volta enquanto se mantem totalmente consciente e mindful. Pode abrir os seus olhos quando se sentir preparada."

Notas:

Partilha

"Como foi a vossa experiência do exercício? O que notaram? Notaram sensações novas/em zonas do corpo que nunca tinham notado? Conseguiram estar com a sensação? Notaram tendência para parar com o desconforto? Sentiram resistência? Como se manifestava essa resistência? O que sentiram no corpo quando criaram espaço para estar com aquela emoção? Agora, no final, como se sentem com a experiência, como está a vossa mente (humor).

Os exercícios de meditação que temos feito foram desenhados precisamente para treinarmos a nossa mente a simplesmente notar a experiência, sem reagirmos automaticamente como habitualmente fazemos: afastar, não sentir, acabar com a emoção difícil. Muitas vezes a forma que arranjamos para não sentir estas experiências desagradáveis é deixar de fazer as coisas que gostamos: não saímos de casa porque temos dor, ou porque não queremos voltar a ter, deixamos de falar com alguém que amamos porque nos sentimos magoados com algo que nos fez, desistimos de sonhos porque a nossa mente nos diz que não vamos ser capazes, que não vale a pena, etc. Tudo porque não queremos sentir dor, porque não queremos sentir tristeza, porque não queremos sentir-nos fracassados. Mas será que uma experiência momentânea, ainda que repetida (como a dor, ou as nossas emoções), deve ditar o nosso comportamento? Dito de outra forma: em vez de esperarem que a dor desapareça para sempre para começarem a ter a vida que querem ter, o que propomos é que comecem já a agir de acordo com essa vida que querem. Isso pode implicar criar espaço dentro de vocês para sentirem dor e sofrimento, e ainda assim seguirem em frente em direção à vida que querem. Reparem, nesta fase, vocês já devem ter percebido muitas coisas sobre a vossa dor. Nomeadamente que deixar de sentir a vossa dor não é possível. Ela pode diminuir, há dias melhores do que outros, há momentos em que está mais intensa, outros em que está menos intensa. Mas é bem provável que a dor seja algo que de volta e meia vos bata novamente à porta. Já tentaram medicação, já tentaram suprimir a dor, já tentaram tanta coisa, com prejuízo de tanta coisa na vossa vida, e a dor vai continuando aí. Nós não propomos que vocês queiram ter dor. Ninguém quer sentir dor! O que propomos é que, uma vez que não nos conseguimos livrar completamente da dor, que aprendamos a estar com ela, pegar nela ao colo e fazer o que é preciso para ter a vida que queremos. Claro que para isso, temos que treinar a nossa mente. Nomeadamente a estar com a experiência. E é isso que temos feito. Claro que implica prática e repetição. Ninguém acharia que ir 1h por semana ao ginásio deixaria os músculos tonificados, certo? É a mesma coisa aqui: para aprendermos a tonificar a nossa atenção e capacidade de estar com a experiência sem lhe reagir nem julgar, implica treinar e praticar. Por isso temos proposto em todas as sessões fazerem exercícios diariamente em casa”.

Síntese

1) Treinar a nossa mente para “descrever”, em vez de “avaliar”, permite-nos estar com a experiência tal como ela é;
2) Aceitar é permitirmo-nos ter uma experiência desagradável (e.g. dor, emoções difíceis), por forma a que possamos continuar e direção à vida que queremos
3) Não tenho que esperar que a experiência desagradável desapareça para agir de acordo com a vida que eu quero ter.

Tarefa para a semana

- 1x por dia, alternar entre body-scan e mindfulness da respiração;
- Refletir e preencher a Ficha de Atividade 7 (“de que tenho desistido”) a) que coisas desistiu na sua vida por causa da dor ou para evitar emoções difíceis; b) como seria a vida que gostaria de ter (trabalho, relação com familiares e amigos, lazer, hobbies, etc)

Notas:

6

(RE)DESCOBRIR VALORES

em busca de uma vida valorizada

Mindfulness do momento presente: o que me traz aqui?

Com esta sessão, daremos inicio à fase final do programa COMP.ACT: identificação de valores de vida e promoção de ação comprometida. O objetivo de introduzir este tema no final do programa segue o seguinte racional: 1) a dificuldade em identificar valores de vida e/ou agir de forma consistente com esses valores está potencialmente relacionada com a experiência de obstáculos de natureza interna, i.e., a fusão cognitiva com a experiência interna (pensamentos, emoções, sensações físicas), assim como a indisponibilidade para ter essas experiências - resultando em tentativas de controlar e evitar a sua ocorrência. Com a fusão cognitiva e evitamento experiencial, a ação passa a estar motivada pelo controlo (da dor e experiência interna), em vez de motivada pelas direções de vida valorizada. Para que o sujeito se aproxime de uma ação motivada pelos valores, é necessário previamente desenvolver um conjunto de competências ligadas à forma como o sujeito se relaciona com as experiências internas indesejadas. Para que tal ocorra, é particularmente importante as competências promovidas pelo mindfulness (observação e identificação da experiência, de forma consciente e sem reação nem julgamento), fundamentais à aceitação da experiência. É a partir desta relação de aceitação da sua experiência interna que o sujeito desenvolve flexibilidade para escolher a sua ação de acordo com o contexto: empreender numa ação que o aproxime da vida que valoriza e dos seus objetivos; 2) por outro lado, a introdução da promoção de compromisso com ação valorizada perto do final do programa permite que o sujeito termine o programa com um conjunto de objetivos e ações valorizadas estabelecidos que servirão de incentivo à prossecução de ações concretas no dia-a-dia, após o fim do programa.

"Convido-a a sentar-se numa posição confortável, com as costas esticadas, mas não tensas, pode colocar as suas mãos em cima do seu colo, e tenha os pés bem assentes no chão. E agora peço-lhe que feche os olhos, ou, se for mais confortável, fixe a sua atenção num ponto aqui na sala. Traga a sua atenção para a respiração. E observe-a como se fosse um cientista curioso que está a contactar pela primeira vez com essa coisa chamada respiração (pausa 10s). Note o ar a entrar pelas suas narinas. Note as sensações do ar a entrar e a sair pelas suas narinas. Simplesmente note. Por exemplo, note a temperatura do ar quando entra (ligeiramente mais fresco) e quando sai (ligeiramente mais quente) (pausa 10s). Note como o abdómen aumenta durante a inspiração, e diminui durante a expiração. Simplesmente note. Não precisa de forçar a respiração, pois o nosso corpo é sábio e sabe respirar sem as nossas instruções. Note também como o seu peito enche quando inspira, e como fica mais vazio quando expira. E note os seus ombros: como sobem ligeiramente na inspiração, e diminuem ligeiramente na expiração. Simplesmente note (pausa 15s). E durante o exercício, é possível que a sua mente comece a dizer coisas: é possível que apareçam imagens, ou pensamentos sobre o que tem para fazer depois desta sessão, preocupações, tarefas por terminar. Ou até a sua mente pode comentar e dizer-lhe coisas sobre este exercício, questionar-se qual o objetivo. É normal. É simplesmente a nossa mente a fazer o que está programada para fazer: questionar e resolver. Simplesmente note isso - como se dissesse um "olá!" a alguém a passar na rua -, e gentilmente volte a trazer a sua atenção para a respiração.

E agora, pense no que a traz a esta sessão, a este programa. O que a motiva a estar aqui? É para se ver livre da sua dor? É para aprender a lidar melhor com as suas emoções? Ou é algo mais global, por exemplo aprender a cuidar melhor de si? É para aprender a tratar-se bem? É para melhorar a sua vida? É para encontrar maior bem-estar e vitalidade? Procure dentro de si essa resposta. Tente descobrir o que a trouxe aqui [20seg]. Não se esforce muito. Deixe que as respostas possam vir dentro do seu coração, e que isso a ajude a clarificar melhor o porquê de estar aqui.

E quaisquer que sejam os pensamentos, imagens, memórias, preocupações que surjam durante o exercício, simplesmente note isso e volte gentilmente para a respiração. Sempre que a sua mente a distrair, não há problema, simplesmente volta a trazer a atenção para a sua respiração. Se sentir aborrecimento, ansiedade, frustração, simplesmente note isso, reconheça que esses sentimentos estão presentes, e gentilmente volte à respiração (pausa 15s). E quando descobrir, gentilmente abra os olhos e registe na folha à sua frente"

Partilha

Este momento de partilha deverá centrar-se essencialmente em dois aspetos: 1) na experiência da aceitação (dificuldades, experiência subjetiva de "deixar estar", resistência que notaram, tendência automática para resistir – e.g. comportamento automático para relaxar zonas desconfortáveis no corpo, automatismo de estratégias inscritas na função de evitamento experiencial, etc), assim como 2) dificuldades/obstáculos na formulação dos motivos/valores para estarem no programa, descobertas em relação aos seus valores e ao que verdadeiramente as move a estarem no COMP.ACT. É especialmente importante que o/a instrutor/a esteja atento/a a formulações que sejam apresentadas como valores e motivos, mas que cumpram, na verdade, uma função de evitamento experiencial (e.g. não ter dor, não ter pensamentos). O/a instrutor/a deverá validar calorosamente essa intenção de aliviar o sofrimento, direcionando, contudo, a discussão para os motivos e valores subjacentes a essas formulações. Por exemplo, se for apresentado como valor "deixar de sentir estas dores", o/a instrutor/a poderá, por exemplo, procurar guiar a descoberta do valor subjacente. Por exemplo: "eu vejo que é mesmo muito importante para si resolver essa questão, e, no fundo, deixar de ter que lidar com a dor. Questiono-me se não haverá um valor, algo maior que a mova a isso. Por exemplo, que coisas é que gostaria de fazer e que com a dor não pode fazer? [por exemplo: fazer mais exercício físico]. Ok, então parece que ser uma pessoa ativa, que cuida de si, que cuida do seu corpo e do seu organismo de forma saudável, é algo importante para si. Questiono-me se não seria possível agir nesse sentido, mesmo com a dor presente. Eu compreendo que livrar-se da dor parece-lhe fundamental, claro. Mas será que não haverá forma de continuar a seguir uma vida guiada por esse valor – de cuidar de si, da sua saúde, de ser uma pessoa ativa – mesmo nos momentos em que a dor está presente? [discussão]. De que forma é que será isso possível? Há alguma competência que aprendemos aqui no COMP.ACT que poderá ser útil nesse sentido?". É importante que o/a instrutor/a articule a complementaridade entre o mindfulness, as competências desenvolvidas pela prática, e a prossecução de ações valorizadas.

Esta partilha deve estar especialmente direcionada para a reflexão sobre os valores. Na sessão anterior, um dos exercícios para casa era o de refletirem sobre a) de que objetivos desistiram por causa da dor ou para evitar emoções difíceis; b) como seria a vida que gostariam de ter (trabalho, relação com familiares e amigos, lazer, hobbies, etc). As participantes deverão ter trazido essa reflexão na Ficha de Atividade 7 preenchida.

Para as participantes que responderem que não desistiram "de nada", o/a facilitador/a deve conduzir uma descoberta guiada no sentido de se explorarem objetivos menos evidentes para as participantes, mas que foram efetivamente abandonados por forma a não estarem em contacto com os pensamentos e emoções difíceis associados a (por

exemplo) fracasso, incapacidade, vulnerabilidade, dependência do outro, etc. O/a facilitador/a pode, ainda, confrontar com gentileza a participante, no sentido de promover esse insight, sempre utilizando esse espaço para modelar a sua relação com a experiência interna desfusionada: “estava a ouvi-la e notei a minha mente a dizer-me ´se não houve desistência de nada, e está tudo bem, o que leva a X a vir ao programa?”.
A partilha deve ser conduzida tendo em vista o tema da sessão e a seguinte apresentação do conceito de “valores” e sua relação com bem-estar e saúde.

Notas:

Introdução aos valores

"Nós temos visto ao longo das sessões que muito do nosso sofrimento surge não só porque é desagradável ter certas experiências, mas principalmente porque nós fazemos coisas que nos provocam ainda mais sofrimento. E, claro, vimos também que não temos culpa: a nossa mente está programada por defeito para fazer tudo o que está ao seu alcance para evitar sofrimento. E a palavra-chave aqui é "evitar". Daqui surgem dois problemas: 1) em primeiro lugar, muitas das coisas que fazemos para não sentir o que não queremos sentir, não dão muito resultado. Por exemplo, vocês já fizeram imenso para evitar ter dor, e a dor acaba sempre por voltar. Na verdade, outra coisa que também já vimos em sessões anteriores é que, por vezes, quando nos esforçamos para não sentir ou pensar em X, mais intenso fica esse pensamento ou emoção; 2) mas o outro problema, ainda maior do que a inutilidade e ineficácia desse evitamento, é o seguinte: ao tentarmos evitar sentir X (sentir dor, tristeza, frustração, medo, etc), vamos ficando progressivamente mais afastados da vida que nós queremos. E quando eu digo "a vida que nós queremos", obviamente não estou a falar de bens materiais. Estou a falar do seguinte: da mãe que querem ser, da amiga que querem ser, da filha que querem ser, das competências que querem desenvolver em vós, e das características que querem manifestar nas vossas relações com os outros. Uma amiga convida-nos para ir almoçar, e nós dizemos que não porque estamos com dor, ou porque estamos tristes naquele dia. Isto acontece uma e duas e três vezes, e quando damos conta a nossa ligação com essa pessoa vai ficando enfraquecida. O nosso filho pede-nos para ir dar um passeio ou ir ao cinema ou ir ao parque, e nós dizemos que não porque estamos sem vontade, cansadas, ou com dor, ignorando que estamos a perder oportunidades de aprofundar a nossa relação com o nosso filho, de criar memórias. Isto faz sentido?"

Deverá ser aberta a discussão, na qual o/a instrutor/a promoverá a compreensão da relação entre a indisponibilidade para experienciar dor, pensamentos e emoções difíceis, e essa indisponibilidade como um obstáculo a uma vida valorizada.

"De facto, se pensarmos bem, quando nos queremos ver livres de um problema, o que queremos verdadeiramente é voltar a ter o que aquele problema nos tirou. Por exemplo, pensem na vossa dor. É claro que a dor é desagradável e é difícil. Mas há muitas coisas difíceis e desagradáveis e que vocês abraçam e aceitam na vossa vida. Vimos há dias o exemplo de serem mães: todo o sofrimento associado desde a gestação, o parto, a experiência posterior nos primeiros meses, etc. E esse sofrimento e sensações desagradáveis não vos demoveu. E estou certo que fariam de novo. Porquê? Porque há algo maior que vos motiva a serem mães e que tem mais peso do que toda a dor e sofrimento associado ao processo. Este exemplo serve apenas para ilustrar que nós não temos que eliminar o sofrimento e a dificuldade da nossa vida para termos uma vida plena e para atingirmos os nossos objetivos. Claro que passamos tanto tempo a tentar livrar-nos da dor, deixamos de fazer muita coisa, limitamos cada vez mais a nossa vida, ao ponto de deixarmos de saber exatamente o que queremos que a nossa vida seja, e o que verdadeiramente nos move. E, por vezes, é necessário refletirmos exatamente sobre isso, sobre o que nos move e o que é importante para nós. E é sobre isso que vamos falar hoje"

Notas:

O que são (e não são) valores

“E gostava de falar convosco sobre valores. Quando falamos de valores, o que queremos dizer é, no fundo, “aquilo que é importante” para cada um/a de nós. No fundo, o que querem que represente a vossa vida, aquilo por que gostariam de ser lembradas, as características que querem que exista na vossa relação com os outros. Isto não tem nada a ver com o que a sociedade nos pressiona para ser e fazer, mas aquilo que nós genuinamente queremos, no fundo o que nos dá vitalidade, o que nos faz sentir vivos quando agimos de acordo com isso. Mesmo que neste momento estejamos muito longe de viver essa vida (de sermos a mãe que gostaríamos, a amiga que gostaríamos, etc), é o conjunto de características que nós genuinamente gostávamos de desenvolver em nós e de manifestar nas nossas relações. Então, pensem nos valores como se fossem uma bússola: eles informam-nos sobre a direção para onde queremos que a nossa vida vá. Os nossos valores de vida são exatamente isso: direções. Não é algo que nós atingimos, nem algo em que a partir do momento em que atingimos acabou, já está. Não! É algo que se manifesta nas nossas ações, mas é algo que nunca alcançamos. Por exemplo: se eu tiver como valor ser um filho presente e generoso, isso vai manifestar-se no meu comportamento (ligar aos meus pais, conversar com eles, perguntar como foi o dia deles, etc). Mas não há nenhum momento em que eu diga “ok, agora sou presente e generoso, acabou, já não preciso de fazer mais nada”. É simplesmente algo que guia o meu comportamento. Gostaria de vos propor um exercício que servirá para refletirem sobre os vossos valores. Pode ser?”

Meditação/Reflexão sobre os valores

Em seguida, as participantes deverão ser guiadas num exercício de meditação focado no contacto com os valores em diversas áreas de vida. Este exercício, para além de ter como objetivo global a (re)descoberta dos valores de vida, serve de prompting para a elaboração da Ficha de Atividades 9 ("o que é importante para mim"). O exercício experiencial de meditação focada nos valores permite a descoberta dos valores, separando-os do ruído das pressões sociais inerentes ao piloto automático. Ao iniciar a descoberta dos valores com um exercício experiencial de mindfulness, pretende-se que essa descoberta seja experiencial e não mediada por "razões", "avaliações" e outros produtos da linguagem. É fundamental alertar as participantes para o seguinte: o objetivo do exercício não é pensar em como as coisas são agora. Tentar não ficar presa a isso. O objetivo é refletir sobre o que é importante para si, como gostaria de se comportar e que características gostaria de ter em cada domínio. É sobre si, e não sobre como gostaria que os outros se comportassem e fossem consigo.

"Encontre uma posição confortável sentada com as pernas cruzadas ou numa cadeira com os pés bem assentes no chão, numa posição que lhe dê conforto e estabilidade (pausa 5s). Deixe que os seus braços repousem ao longo do corpo, palmas abertas e viradas em direção ao teto, se for confortável. Gentilmente e calmamente traga a sua atenção para a sua respiração. Não tentando manipular a respiração de alguma forma, mas simplesmente experienciando as sensações físicas da respiração, à medida que o ar se move para dentro e para fora do corpo (pausa 5s). E dirija a sua atenção para a zona da barriga, para o abdómen, sentindo as sensações nessa zona à medida que o ar entra no corpo e o abdómen se expande; e à medida que o ar sai do corpo e o abdómen se retrai; e simplesmente siga os movimentos rítmicos da sua barriga a cada respiração (pausa 5s). O levantar da barriga na inspiração e o baixar na expiração. E a cada expiração deixe que o seu corpo se torne mais pesado, à medida que se afunda ligeiramente na cadeira. Simplesmente traga a atenção para cada respiração. Inspiração... e expiração... Uma a seguir à outra (pausa 10s).
E em seguida, vai explorar os seus valores em diferentes áreas da sua vida. Vamos começar com a família. Pode ser a sua relação com os seus pais, irmãos, filhos. O que é que é genuinamente importante para si na relação com os seus familiares? Pode pensar em alguém em particular, ou no geral. Como achar melhor. O que

verdadeiramente valoriza na relação? Faça essa questão a si própria e reflita sobre o que genuinamente valoriza nessa relação. E se a sua mente lhe disser “ser boa mãe, ser boa filha, ser boa esposa”, note isso e tente refletir sobre o que é para si ser “boa” mãe, filha, esposa. Que características teria em si e que se manifestariam nessa relação? Simplesmente oiça, e deixe que todas as respostas que surjam existam, sem as julgar nem censurar. E se nenhuma resposta surgir no inicio, não há problema. Simplesmente note isso e esteja recetiva ao que a sua mente lhe diz (pausa 30s). E agora pense nas suas relações de amizade. E as perguntas são as mesmas: o que é que é genuinamente importante para si na relação com os seus amigos? E tente focar a sua atenção em si, e não em como gostaria que os seus amigos fossem. Que característica gostaria de ter e de manifestar nas suas relações de amizade? No fundo, que amiga gostaria de ser (pausa 30s). E agora, por favor, foque a sua atenção no trabalho, e coloque as mesmas questões a si própria: que profissional eu gostaria de ser? Que características eu quero desenvolver na minha vida profissional? Que colega eu quero ser? E é possível que a nossa mente nos traga algumas situações difíceis, nas quais nos sentimos injustiçadas ou não reconhecidas. Por vezes temos experiências difíceis no nosso trabalho, com colegas, patrões. Este exercício não é sobre isso. Simplesmente note esses pensamentos, e volte a trazer a sua atenção para si enquanto profissional. Esta reflexão é independente do trabalho que tem agora, ou dos colegas que tem agora. É uma reflexão sobre as características enquanto profissional que são importantes para si. O que a move enquanto profissional? Para que deseja contribuir? Como quer ser na sua relação com colegas em geral? (pausa 30s). Repare que esses valores são presentes, independentemente de estar atualmente a agir de forma consistente ou não com eles. São coisas que valoriza, mesmo que não esteja neste momento a agir de forma coerente com isso. A importância de refletirmos sobre os nossos valores é precisamente para voltarmos a torná-los presentes para que, assim, possamos recentrar a nossa ação e comportarmo-nos de forma mais consistente com os nossos valores (pausa 10s). Agora, por favor, pense no tema “saúde”. A maior parte das pessoas valoriza de alguma forma a saúde. Mas, no seu caso, o que é que especificamente valoriza em relação à saúde? Coloque essa questão a si própria e note o que surge. Tem a ver com cuidar de si, tratar bem e com respeito o seu corpo? Ou tem a ver com outro valor? Reflita sobre isso: o que a motiva a ser mais saudável? (pausa 20s). E, finalmente, reflita em si, como um todo, enquanto pessoa: que pessoa gostaria ser na sua vida, momento a momento? O que é que genuinamente lhe importa em termos da pessoa que é, ou seja, que valores são importantes e quer que guiem a sua vida: é ser uma pessoa com empatia, é ser honesta, é ser trabalhadora, é ser leal? O que quer que seja importante para si, como poderia viver a sua vida, momento a momento, de forma coerente/consistente com esses valores. Como é que esses valores se poderão manifestar no seu comportamento? Deixe essas questões assentarem, e simplesmente note o que surge (pausa 20s).

E agora volte a focar a sua atenção na sua respiração. Note o ar a entrar e a sair pelas narinas, note a temperatura. Note a respiração em todo o corpo: na cara, nos ombros, nas costas, no abdómen. E quando estiver preparada, pode abrir os olhos e voltar à sessão.

Notas:

Preenchimento da ficha “O que é importante para mim”

Após realização da meditação focada nos valores, as participantes darão imediatamente inicio ao preenchimento da ficha “o que é importante para mim”. As participantes deverão escolher duas áreas de vida sobre as quais definirão os seus valores. Durante todo o exercício, o/a facilitador/a deverá ir acompanhando as participantes no preenchimento da ficha, por forma a reforçar as respostas, assim como auxiliar quando essas respostas não forem valores, mas sim avaliações, razões e construções sociais (e.g. ser “boa” mãe). Será ainda importante auxiliar na distinção entre os valores e os objetivos, lembrando sempre que possível que os valores são direções nunca alcançadas: não há nenhum momento em que eu atinja ser “caloroso” e a partir daí o meu trabalho terminou. O/a facilitador/a deverá guiar a descoberta de que um valor, não sendo alcançável, está refletido nos nossos objetivos e manifesta-se nas nossas ações em direção à realização desses objetivos. Novamente, um aspeto particularmente importante é o/a facilitador/a estar atento/a às formulações aparentemente de valores, mas que refletem um padrão de evitamento experiencial. Assim, uma formulação como “é importante para mim não ter dor” ou “sentir-me menos ansiosa para fazer as coisas que gosto” deve ser abordada pelo/a facilitador/a, no sentido de guiar, a partir daqui, para a descoberta do valor subjacente: “Percebo que deixar de ter dor seja algo que lhe pareça importante. Gostaria de descobrir consigo o que é que está aí subjacente que valoriza tanto? O que é que passaria a fazer ou a ter se a dor desaparecesse? O que é que não está a fazer neste momento? E por que é importante para si fazer isso?”. É essencial que o/a facilitador/a esteja mindful durante todo o exercício, para não perder essas oportunidades de descoberta. Nesta fase, não é importante a ação, mas ajudar as participantes na descoberta do que valorizam e lhes traria vitalidade.

Partilha

Validar a experiência emocional durante o exercício, nomeadamente a frustração e dificuldade generalizada em encontrar os valores, enquadrando essa dificuldade quer na natureza social da condição humana (“aprendemos que devemos fazer e alcançar um conjunto de coisas, sendo que algumas podem resultar no nosso afastamento da vida que verdadeiramente gostaríamos e nos traria vitalidade”), quer na resposta automática do evitamento experiencial (“a nossa tendência de evitar experiências desagradáveis resulta, a médio prazo, no nosso afastamento daquilo que verdadeiramente consideramos importante e que gostaríamos que a nossa vida fosse e representasse. Fazemos tudo para evitar o sofrimento, sem nos dar conta de que muitas vezes sofrer e atingir a vida que queremos são duas páginas da mesma folha: não é possível colocar no lixo uma sem pôr a outra também. O objetivo aqui é não perdermos de vista o que é importante para nós e o que gostaríamos que a nossa vida fosse, para que as nossas ações sejam guiadas por isso e não pela fuga ao sofrimento – que muitas vezes, precisamente por nos afastar de tudo o que nos dá vitalidade, causa ainda mais sofrimento. E isto aplica-se à dor, e a todas as nossas emoções e experiências desagradáveis”).

Síntese

1) Neste contexto, valores são características que queremos desenvolver, é o que queremos que a nossa vida represente, o que é genuinamente importante para nós e nos traz vitalidade;
2) Passamos grande parte do nosso tempo em piloto automático a tentar evitar o sofrimento, sendo que são essas tentativas que nos vão afastando da vida que queremos para nós;
3) O treino na nossa atenção, através dos exercícios de meditação, permite identificarmos os obstáculos internos à nossa vida valorizada (e.g. pensamentos de fracasso, e emoções difíceis como ansiedade ou tristeza), permitindo-nos escolher o nosso comportamento de forma consciente, a partir do contexto. No fundo, respondendo à questão “que comportamento, nesta situação, reflete os meus valores e me aproxima da vida que eu quero ter?”.

Tarefa para a semana

- Fazer body-scan 1x por dia
- Escolher conscientemente (com propósito!) fazer uma ação que reflita os seus valores em pelo menos 1 área da sua vida, pelo menos 1x por dia.

7

AGIR AGORA

dos valores ao compromisso com a ação

Mindfulness do momento presente: Eu com 90 anos

Esta sessão terá como principal objetivo a promoção do compromisso com a ação guiada pelos valores de vida. Após a clarificação dos valores, assim como o estabelecimento da relação entre o evitamento inflexível do sofrimento e o afastamento de uma vida valorizada, esta sessão centrar-se-á no estabelecimento de objetivos valorizados e no estabelecimento de ações comprometidas com os valores. Esta sessão é particularmente importante, uma vez que não só materializa a (re)descoberta dos valores, como une a relação entre a aceitação da experiência, a clarificação de valores e a ação comprometida: é fundamental que o/a facilitador/a não guie a presente sessão exclusivamente focado/a no estabelecimento de ações valorizadas, mas que traga à sessão, sempre que for oportuno, o contacto com o presente e a aceitação como ferramentas para uma escolha consciente das ações, diminuindo, portanto, a ação em piloto automático.

"Convido-vos a sentarem-se numa posição confortável, com as costas esticadas, mas não tensas, podem colocar as vossas mãos em cima do vosso colo, e tenham os pés bem assentes no chão. E agora peço-vos que fechem os olhos, ou, se for mais confortável, fixem a vossa atenção num ponto aqui na sala.
Traga a sua atenção para a respiração. E observe-a como se fosse uma cientista curiosa que está a contactar pela primeira vez com essa coisa chamada respiração (pausa 10s). Note o ar a entrar pelas suas narinas. Note as sensações do ar a entrar e a sair pelas suas narinas. Simplesmente note. Por exemplo, note a temperatura do ar quando entra (ligeiramente mais fresco) e quando sai (ligeiramente mais quente) (pausa 10s). Note como o abdómen aumenta durante a inspiração, e diminui durante a expiração. Simplesmente note. Não precisa de forçar a respiração, pois o nosso corpo é sábio e sabe respirar sem as nossas instruções. Note também como o seu peito enche quando

inspira, e como fica mais vazio quando expira. E note os seus ombros: como sobem ligeiramente na inspiração, e diminuem ligeiramente na expiração. Simplesmente note (pausa 15s). E durante o exercício, é possível que a sua mente comece a dizer coisas: é possível que apareçam imagens, ou pensamentos sobre o que tem para fazer depois desta sessão, preocupações, tarefas por terminar. Ou até a sua mente pode comentar e dizer-lhe coisas sobre este exercício, questionar-se qual o objetivo. É normal. É simplesmente a nossa mente a fazer o que está programada para fazer: questionar e resolver problemas. Simplesmente note isso - como se dissesse um "olá!" a alguém a passar na rua -, e gentilmente volte a trazer a sua atenção para a respiração.

E agora peço-lhe que imagine, tão bem quanto consiga, o seguinte: é o seu dia de aniversário. Faz 90 anos e está rodeada de todas as pessoas importantes para si. Por vezes temos dificuldade em imaginar isto porque a nossa mente nos diz coisas como "isso não vai acontecer", "não vou viver tanto", ou até "vais estar sozinha", etc. Simplesmente note isso, caso a sua mente lhe diga essas coisas, e tente imaginar essa situação, tão bem quanto consiga. Este é apenas um exercício de imaginação. Pense que faz 90 anos e está rodeada por todas as pessoas que ama e são verdadeiramente importantes para si. Podem ser familiares, amigos, colegas que a marcaram. E imagine que é chegado o momento de os convidados dizerem umas palavras sobre si, sobre a sua vida, e do que sentem por si (pausa 5s). E agora peço-lhe que imagine o que gostaria que eles dissessem sobre si, sobre o seu comportamento, sobre o seu contributo para as suas vidas e para o mundo à sua volta, sobre o que a sua vida representou e representa ao longo desses 90 anos. E eu não estou a pedir que imagine o que acha mais provável eles dizerem sobre si, mas sim que imagine o que gostaria que eles dissessem sobre si: o que significa para eles, a diferença que fez nas vidas deles [pausa 20s]. E enquanto ouve com atenção o que as pessoas dizem sobre si, pode recordar-se das escolhas difíceis que fez ao longo da vida para ser essa pessoa com tanto significado e tão importante para eles. Que enfrentou o sofrimento e foi capaz de seguir em frente e fazer o que era importante para si, mesmo tendo emoções difíceis. [pausa 20s].

E agora agradeça à sua mente por lhe ter proporcionado essa experiência de imaginação, e volte gentilmente para a respiração. E quando estiver preparada, gentilmente abra os olhos e volte à sessão"

Partilha

A partilha deverá passar por "o que surgiu durante o exercício?", "o que a sua mente gerou sobre o que gostaria que dissessem sobre si?", "que outros pensamentos, emoções, sensações físicas notou?". Particularmente importante é centrar a discussão no seguinte: "notou que a diferença que fez na vida das pessoas e a importância que tem nas suas vidas implicou muitas vezes fazer escolhas difíceis?", "notou que para ter essa importância na vida dessas pessoas foi necessário passar por experiências que no momento foram desagradáveis?"

A partilha deverá ser, como habitual, um espaço no qual as participantes poderão colocar questões acerca de reflexões que tenham surgido durante a semana, assim como partilhar dificuldades sentidas durante a semana. A partilha desta sessão deverá estar particularmente focada na tarefa "ação valorizada diária", que o/a facilitador/a deverá trazer à discussão. Especificamente, deverá ser discutida a natureza da ação (distinguindo, sempre que apropriado, ações que são guiadas pelo evitamento, das ações guiadas pelos valores), assim como as dificuldades das participantes em realizar a tarefa. Será fundamental a discussão ser guiada numa postura de validação da experiência emocional, reforçando as tentativas bem-sucedidas de agir de forma consistente com os valores. Ainda no seguimento das tarefas entre sessões, a discussão deve centrar-se nos "obstáculos à ação valorizada", nomeadamente obstáculos de natureza interna (pensamentos, sentimentos, sensações físicas, impulsos, etc), assim como a descoberta guiada de soluções alternativas que promovam a ação valorizada (articulando com o papel do contacto com o presente e da aceitação).

Notas:

Introdução ao compromisso com a ação valorizada

"Ao longo das sessões, temos visto que podemos aceitar aspetos difíceis da nossa vida (como pensamentos desagradáveis, emoções e sensações dolorosas, etc), para que seja possível criarmos em nós espaço para vivermos a vida que queremos. Nesse sentido, vimos que é possível estarmos com a nossa dor, criar um espaço em nós no qual a dor possa existir, ainda que seja desagradável, e ainda assim seguirmos com a nossa vida e aproximarmo-nos da vida que queremos viver. Temos visto que ao sermos capazes de nos abrir e, no fundo, de abraçar a nossa dor, podemos mudar o foco da nossa ação: ela deixa de ser ditada pela dor, por fugir à dor, por eliminar todas as variáveis que possam manter ou aumentar a dor. E esta capacidade de estarmos com a experiência, tal como ela é (de simplesmente notar, sem reagir, o pensamento "isto não vai passar", "nunca vou ser a pessoa que era antes da dor", "sou inútil", etc, ou de simplesmente notar a sensação física no corpo), dá-nos margem de manobra para não agirmos automaticamente. Mas essa consciência, de notar a experiência e não reagir, apesar de ser fundamental, não assegura uma vida valorizada. Para termos uma vida valorizada, temos que fazer mais do que isso: temos que nos comprometer a agir de acordo com os nossos valores e no sentido da vida que queremos. E é aqui que a capacidade de estar no momento presente e de notar a experiência é fundamental: quando NÃO capazes de simplesmente notar a experiência (pensamentos, emoções, sensações físicas, etc) sem lhe reagir nem ajuizar, tendemos a agir de forma automática. Qual o problema de agir automaticamente, podem perguntar. O problema é este: como se lembram, vimos que nós humanos (e os outros animais, na verdade!) tendemos naturalmente a querer evitar tudo o que causa sofrimento, e aproximarmo-nos do que nos causa prazer. Ora, isso significa que, se estivermos em piloto automático, ao primeiro sinal de dor (ou a mera antecipação de que a dor poderá ocorrer/intensificar-se), vamos agir automaticamente no sentido de diminuir a dor. E, em teoria, não haveria problema se 1) a dor efetivamente diminuísse, e 2) se no processo não nos afastássemos da vida que queremos e valorizamos. O que acontece, no entanto, é que nas tentativas automáticas de diminuirmos ou evitarmos a dor, vamos ficando progressivamente mais afastadas da vida que valorizamos e queremos viver. Contrariamente, quando SOMOS capazes de estar com a experiência negativa (com a dor – com a sensação física dolorosa e pensamentos e emoções associados), construímos um espaço no qual conseguimos fazer escolhas menos impulsivas e mais consistentes com os nossos objetivos e valores de vida. Por exemplo: imaginem que estão a terminar um dia de trabalho e que começam a sentir um certo desconforto nas costas (podem pensar no vosso caso, este é apenas um exemplo). Imediatamente aparece-vos o pensamento "tenho que ir para casa deitar-me, se não isto vai piorar e amanhã vou acordar péssima, irritada, e isto vai piorar tudo". Reparem como o desconforto que surgiu nas costas desencadeou um conjunto de pensamentos sobre o que iria acontecer a seguir – no futuro! Imaginem que nesse dia já tinham marcado um café com uma amiga que vos disse estar em baixo e precisar conversar um pouco. Qual acham que seria o comportamento em piloto automático, ou seja, de alguém que não está no presente? [guiar a discussão no sentido da descoberta de que o piloto automático provavelmente resultaria no evitamento – e.g. cancelar o encontro, marcar para outro dia]. Se tivessem como valor serem amigas presentes, generosas, calorosas e suportativas, acham que esse comportamento estaria a aproximar-vos ou a afastar-vos da amiga que valorizam e gostariam de ser? Por outro lado, como acham que seria o comportamento caso fossem capazes de estar no presente, de notar a experiência (a sensação física desagradável, os pensamentos, as emoções, etc) e de não lhe reagir automaticamente, mas sim ponderando e escolhendo o comportamento mais próximo da pessoa que gostariam de ser?

Guiar a discussão no sentido de promover a aprendizagem da relação entre "piloto automático ⟶ evitamento ⟶ afastamento vida valorizada" VERSUS "momento presente ⟶ aceitação ⟶ aproximação vida valorizada".

Como podem perceber com este exemplo, e com o que temos visto ao longo das sessões, é precisamente quando conciliamos a nossa capacidade de estar com a experiência difícil sem lhe reagir nem ajuizar (aceitação) e o compromisso em agir de forma consistente com os nossos valores (compromisso com ação) que voltamos a ter a rédeas da nossa vida, e deixamos de estar presas à nossa dor e ao que ela dita que a nossa vida deve ser. Neste sentido, estarmos comprometidos com os nossos valores não é "fazer contrariado", ou "faz isso porque não tens outro remédio". Por isso é tão importante que a nossa ação esteja alicerçada numa postura de aceitação ("eu consigo estar com isto, ainda que seja dificil") e na consciência dos nossos valores ("estou a fazer isto porque é a materialização da pessoa que eu quero ser e das características que quero desenvolver em mim como mãe, mulher, filha, amiga, colega, etc").

Esta união entre "aceitação da experiência" e "compromisso com os valores" resulta em sermos uma espécie de condutores de um autocarro. Um condutor de um autocarro tem o seu destino e o seu percurso, independentemente das pessoas que entrem no autocarro e das suas vontades. Há passageiros mais calados e calmos, mas pode haver outros mais ansiosos (com medo do caminho, da estrada, das zonas da cidade por onde passa), outros que se levantam irritados (porque está a ir devagar demais, ou porque preferem outro caminho), etc. Independentemente dos passageiros que entram no autocarro, o caminho não é influenciado por isso. Pensem em vocês como as condutoras do autocarro, e os vossos pensamentos (anseios, medos, dúvidas, etc) e emoções como passageiros que vão tentando que mudem o vosso percurso. O que temos trabalhado aqui no programa são formas de simplesmente notarmos o que os passageiros dizem, sem lhes reagir, sem lhes responder de volta nem entrar em discussões com eles, e simplesmente continuar a nossa viagem em frente, comprometidas com o nosso percurso. Isto faz sentido? [deve ser aberta breve discussão – 10 mins]

O que vos proponho no próximo exercício é que peguem no volante do autocarro e que estabeleçam o percurso que querem fazer em direção à vossa vida. Dito de outra forma, quais os objetivos e quais as ações que levarão ao cumprimento desses objetivos?".

Quatro passos para a ação comprometida

No próximo exercício, as participantes deverão preencher a ficha "quatro passos para ação comprometida", e em seguida discutir em grupo o que formularam. É importante que o/a facilitador/a torne claro: 1) que as participantes deverão formular objetivos e ações com as quais se comprometem para aquela semana; 2) as características SMART dos objetivos.

"No próximo exercício vamos pôr mãos à obra e estabelecer objetivos e ações com as quais vamos estar comprometidas ao longo da próxima semana. O objetivo é que esta semana sirva de introdução ao que se pretende que façamos não só nas próximas duas semanas, mas também após o programa terminar e ao longo da nossa vida. Têm convosco a ficha dos quatro passos para a ação comprometida. Proponho-vos que preencham a ficha e que de seguida discutam com a vossa colega do lado o que preencheram, as dificuldades que encontraram em formular esses objetivos e ações, e os obstáculos que antecipam encontrar ao longo da semana. Eu gostava ainda de vos dizer o seguinte sobre os objetivos. Quando estiverem a formular os objetivos de acordo com os valores num domínio da vossa vida, tenham em atenção que os objetivos devem ser: 1) o mais específicos possível: um objetivo "passar mais tempo com o meu filho" é vago e difícil quantificar objetivamente se o cumprimos ou não. Um objetivo específico aqui seria algo como "no sábado vou levar o meu filho ao parque para ele jogar à bola". 2) o objetivo deve ter significado: deve ser guiado pelos valores e não por regras rígidas (como tentar agradar os outros, ou evitar a dor); 3) Deve guiar-vos no sentido da vida que valorizam: não faz sentido estarem comprometidas com objetivos e ações que não têm qualquer significado e não vos aproximam da vida que valorizam; 4) Deve ser realista: é importante ter em atenção se o objetivo e ação que formulam é possível realisticamente ser alcançado. Devem ter em atenção a vossa condição física, o tempo que têm disponível, a condição financeira; 5) Deve estar circunscrito no tempo: os objetivos e ações devem ter um tempo específico. Marquem um dia, uma hora, o número de vezes. O objetivo "fazer mais caminhadas" é genérico porque não tem qualquer descritor temporal. Um objetivo deverá ser algo como "fazer 3 caminhadas de 30 minutos de manhã antes do trabalho". Claro que estes são apenas exemplos. Devem adaptar à vossa realidade, aos vossos valores. Tendo isso em atenção, proponho que preencham as seguintes questões da ficha: 1) Escolha um domínio da sua vida que consideram altamente importante para si; 2) Escolha que valores quer ter associado a esse domínio; 3) Escolha que objetivos quer perseguir guiados pelos valores nesse domínio; 4) Estabeleça 2 ações com que estará comprometida ao longo desta semana, e que promoverão o atingir dos objetivos valorizados para esse domínio.”

Partilha

A partilha após o exercício é fundamental para o/a facilitador/a esclarecer eventuais confusões entre “valores” e “regras”, assim como promover o estabelecimento de objetivos que sigam as características SMART acima descritas. Ainda que o/a facilitador/a deva percorrer a sala ao longo do exercício (deixando os primeiros 10 minutos iniciais para que as participantes tentem realizar sozinhas o exercício), é fundamental que este espaço após o exercício seja dedicado ao esclarecimento de possíveis mal-entendidos em relação aos valores, objetivos e ações.

Notas:

Exercício Mindfulness: body-scan abreviado

“Encontre uma posição confortável sentada, com os pés bem assentes no chão, numa posição que lhe dê conforto e estabilidade (pausa 5s). Deixe que os seus braços repousem ao longo do corpo, palmas abertas e viradas em direção ao teto, se for confortável. Gentilmente e calmamente traga a sua atenção para a sua respiração. Não tentando manipular a respiração de alguma forma, mas simplesmente experienciando as sensações físicas da respiração, à medida que o ar se move para dentro e para fora do corpo (pausa 5s). E dirija a vossa atenção para a zona da barriga, para o abdómen, sentindo as sensações nessa zona à medida que o ar entra no corpo e o abdómen se expande; e à medida que o ar sai do corpo e o abdómen se retrai; e simplesmente siga os movimentos rítmicos da sua barriga a cada respiração (pausa 5s). O levantar da barriga na inspiração e o baixar na expiração. E a cada expiração deixe que o seu corpo se torne mais pesado, à medida que se afunda ligeiramente na cadeira. Simplesmente traga a atenção para cada respiração. Inspiração... e expiração... Uma a seguir à outra (pausa 10s).

E agora, note o contacto com o chão, traga a sua atenção para os dedos dos pés. Simplesmente mude a atenção da sua barriga e das sensações da respiração para os dedos dos pés (pausa 5s). Tente notar quaisquer sensações que estejam presentes nessa parte do corpo. Pode notar sensações de vibração, ou comichão, calor ou frio. O que quer que seja, não é importante, mas simplesmente sinta os dedos tal como eles são (pausa 10s). E se notar que não encontram nenhuma sensação quando focam a vossa atenção nessa zona, então simplesmente experiencie o não sentir. Lembre-se que o importante é a atenção e não a sensação. E, portanto, pouco importa se tem ou não sensações, mas o que importa é prestar atenção ao que está presente nessa parte do corpo. Simplesmente tenha consciência de onde está a sua atenção (pausa 10s). Sinta o dedo grande, o dedo pequeno. E talvez os dedos intermédios. Não os tente mover, mas simplesmente tentem senti-los. Mas se os mover também não há problema. A ideia é simplesmente notar as sensações nessa zona do corpo (pausa 15s).

E quando se sentir preparada, e se conseguir, à medida que expira, largue os dedos e mova a vossa atenção para as plantas dos pés. Para quaisquer sensações que existam nessa zona do corpo (pausa 15s). E quando se sentir preparada, expire, largue a sola do pé, focando agora a atenção no calcanhar, na zona em que o seu calcanhar entra em contacto com o chão. E simplesmente sinta as sensações presentes, talvez de toque ou pressão (pausa 10s). Já sabe que é possível que a mente a distraia com outras coisas, e que se aperceba que estava a pensar noutra coisa que não no exercício. Não há problema, é normal. É isso que todas as nossas mentes fazem. Quando notar, simplesmente note isso e gentilmente volte a trazer a atenção ao corpo, tão bem quanto consiga.

E quando se sentir preparada, numa expiração, largue o calcanhar, tornando-se agora consciente das suas pernas. Da parte da frente e do músculo da parte de trás. E quaisquer sensações nas suas pernas, desde o tornozelo até à virilha (pausa 15s). Experiencie essa zona tal como é, não tentando que seja diferente (pausa 15s). E se houver uma outra parte do corpo que esteja a chamar a sua atenção, por exemplo por haver uma sensação desconfortável, simplesmente note isso e tão bem quanto consiga, volte a trazer a sua atenção para as pernas e as sensações aí, desde os tornozelos, passando pelos joelhos, até às virilhas (pausa 15s).

E, novamente na próxima expiração, deixe as pernas e mova a sua atenção para o fundo das costas. E experiencie quaisquer sensações nessa zona. Essa é uma região que por vezes nos dá problemas. Pode haver sensações um pouco intensas de dor ou desconforto. Note quaisquer que sejam as sensações presentes. Simplesmente note as sensações nessa zona. Tente simplesmente notar, sem julgar como "boa" ou "má" (pausa 10s). Simplesmente notando as sensações: é uma sensação de ardor? De pressão? E é em que zona da lombar? Mais à esquerda? À direita? No centro? Simplesmente note a sensação. E note o que a sua mente comenta e diz acerca da sensação. Simplesmente note isso, nessa característica da nossa mente de comentar e julgar e avaliar. E volte a atenção para a sensação física (15s).

Na próxima expiração, mova a sua atenção para a zona superior das costas. E sinta as sensações presentes aí. Talvez sinta a sua caixa torácica a expandir com a inspiração. Ou as sensações de contacto da omoplata com a cadeira (pausa 5s). E, novamente, se houver alguma sensação desconfortável, simplesmente note isso, note o que a mente diz, comenta sobre isso, e volte gentilmente para a sensação física (pausa 15s). Mova a sua atenção agora para a barriga. Talvez sentindo o movimento da respiração nessa zona. Permita que a sua atenção abranja também a zona do peito. Sentindo os movimentos do seu peito a expandir ligeiramente com a inspiração e a contrair com a expiração (pausa 10s). E se conseguir pode também notar os batimentos do seu coração. Sinta o seu peito e a sua barriga, toda a parte da frente do eu tronco (pausa 15s).

E quando se sentir preparada, leve a sua atenção até às pontas dos dedos das mãos. Simplesmente tente notar as sensações, ou ausência de sensações, nas pontas dos dedos. Pode sentir pulsações, calor... Talvez consiga sentir cada dedo separadamente. Permita que a sua atenção se estenda para as palmas das mãos e as costas das mãos. E os pulsos (pausa 10s). E agora pode notar as sensações nos antebraços. E nos cotovelos. Inclua também a parte superior dos braços e os ombros. Muitos de nós acumulamos tensão nessa zona. Note quaisquer sensações presentes aí, particularmente nos ombros. Quaisquer que sejam (pausa 15s).

Na próxima expiração largue a atenção dos braços e dos ombros, e dirija a atenção para o pescoço. Para a parte de trás do pescoço, e para a parte da frente. Talvez sentindo as sensações da respiração nesta zona, ou as sensações de engolir. Novamente, se notar desconforto ou tensão na zona da cervical ou próximo da parte de trás do pescoço, simplesmente note isso, e tente explorar a sensação com curiosidade, como se fosse um cientista a estudar essa zona: qual é a sensação? É de ardor? É de pressão? É em toda a zona, ou é mais forte em uma parte específica? E note na tendência natural e automática para relaxarmos ou nos movermos para diminuir o desconforto. Simplesmente note isso (pausa 15s). Se a sensação for demasiado intensa, pode voltar por momentos à respiração, sentindo o ar a entrar e a sair do nariz. A sua respiração é um lugar seguro que está sempre presente, ao qual pode recorrer quando a experiência for demasiado intensa. Não se trata de tolerar, mas de ir à tona respirar um pouco, para que possamos voltar a trazer a nossa atenção à experiência dolorosa.

Note agora as sensações na sua cara. Foque-se no maxilar e no queixo. E nos lábios, na boca, nas gengivas e na língua. Simplesmente note, sem ter que mexer para sentir melhor. Tente simplesmente notar as sensações nessa zona tal como elas existem (pausa 15s). Agora dirija a sua atenção para o nariz, talvez sentindo o ar a entrar e a sair das narinas à medida que respira (pausa 15s). Mova a sua atenção para os olhos e para toda a região à volta dos olhos. Talvez sentindo o peso das pálpebras, ou os movimentos oculares. Sintam também a zona das têmporas e da testa. Talvez procurando relaxar a testa, se estiver contraída (15s). Sintam o vosso rosto como um todo, incluindo também ambas as orelhas (5s). E agora foquem a vossa atenção na parte de trás e na parte de cima do crânio. E todo o couro cabeludo. E quando se sentirem preparadas, sintam o vosso corpo como um todo, desde o topo da vossa

cabeça até à planta dos pés.
À medida que chegamos ao fim desta prática tirem um momento e talvez sintam gratidão por ter tirado tempo para vós próprias desta forma (20s). Tragam a vossa atenção para o corpo e lentamente comecem a mexer os dedos das mãos, e os dedos dos pés. Estiquem os braços acima da cabeça e alonguem todo o corpo (30s)”

Partilha

Os pontos previamente abordados em práticas de body-scan (ver Sessão 2)

Síntese

1) Treinarmos a nossa atenção no sentido de estarmos com a experiência sem lhe reagir nem ajuizar é fundamental, e é uma competência fundamental para escolhermos agir com compromisso com os nossos valores;
2) Quando aliamos a “aceitação” ao “compromisso valores” ganhamos poder porque saímos do piloto automático (afastamento da vida valorizada) para uma vida mais presente e consequentemente mais valorizada (aproximação de vida valorizada)
3) O objetivo é sermos como condutores do autocarro da nossa vida, sendo capazes de simplesmente notar a agitação e comentários dos passageiros, e ainda assim continuando o nosso percurso em direção à vida que valorizamos;

Tarefa para a semana

- Praticar 1x por dia body-scan e alternar com mindfulness da respiração OU loving-kindness.
- Realizar as ações formuladas na Ficha de Atividades 10 (“quatro passos para a ação comprometida”), e registar obstáculos sentidos, assim como estratégias utilizadas para lidar com esses obstáculos.

Notas:

8

DEPOIS DO COMP.ACT

síntese do programa

O poço no campo: visualização de motivações e fatores de stress

É chegada a última sessão do COMP.ACT. Esta é uma sessão de revisão/síntese dos conteúdos principais do programa. Especificamente, nesta sessão será dado um enfoque 1) à importância de largar a agenda do controlo, nomeadamente quando esse controlo é não só ineficaz, como também nos afasta da vida que valorizamos; 2) na utilidade do mindfulness como ferramenta de promoção do contacto com o momento presente, particularmente como veículo de treino da nao-reactividade, e do corpo como refúgio ancorado sempre no presente, e não como inimigo, ao qual podem sempre voltar, o que implica a continuação da prática depois do programa terminar; 3) no papel do mindfulness como promotor de maior liberdade de escolha, libertando-nos dos padrões automáticos de ação, e permitindo-nos escolher as nossas ações com base nos nossos valores; 4) a importância do auto-cuidado e de cultivar a gratidão; 5) fornecer um kit "vida plena", não só para situações difíceis, mas que promova vitalidade e uma ligação mais profunda à vida.

"Convido-a a adotar uma postura confortável, mas não rígida. Uma postura que a permita estar alerta. E como é habitual, por favor feche os olhos, e traga a sua atenção para o seu corpo. Note as sensações corporais no seu corpo, note as zonas em que o seu corpo se apoia na cadeira (pausa 5s). Note as sensações nos seus pés, a forma como eles repousam no chão, e note as sensações nessa zona do corpo: note as sensações nos dedos dos pés. Não tem que os mexer. Simplesmente note o que consegue sentir nos seus dedos dos pés. E se os mexer, não há problema. O objetivo é simplesmente notar (pausa 10s). E dirija a sua atenção para a sua respiração e note como ela se manifesta no seu corpo. Dirija a sua atenção para a zona da barriga, para o abdómen, sentindo as sensações nessa zona à medida que o ar entra no corpo e o abdómen se expande; e à medida que o ar sai do corpo e o abdómen se retrai. E simplesmente siga os movimentos rítmicos da sua barriga a cada respiração (pausa 5s). Note o levantar da barriga na inspiração, e o baixar da barriga na expiração. E a cada expiração, deixe que o seu corpo se torne mais pesado, à medida que se afunda ligeiramente na cadeira. Simplesmente traga a atenção para cada respiração. Inspiração... e expiração... Uma a seguir à outra (pausa 10s).

E agora peço-lhe que imagine um campo grande. E imagine-se a caminhar nesse campo, a atravessar esse campo grande de um lado ao outro. Note o que existe esse campo. É um campo com relva? É um campo com terra? E há mais alguma coisa nesse campo? Por exemplo, há árvores nesse campo? Há flores, arbustros? E há outras pessoas nesse campo a caminhar? Adultos? Crianças? Há animais? E que cheiros estão presentes nesse campo? Nota o cheiro a relva? O odor das flores? Ou o cheiro a terra? (pausa 5s). E que sons estão presentes? Sons dos pássaros? De pessoas a conversar? Crianças a brincar? Simplesmente note todos os elementos existentes nesse campo que se imagina a atravessar (pausa 10s).

Depois de atravessar todo o campo, quando chega finalmente à outra ponta, vê um poço, com um balde pendurado por uma corda no centro do poço, e uma roda que permite baixar o balde para dentro da água do poço, lá em baixo. Simplesmente observe isso (pausa 5s). À volta do poço, pedras, umas grandes, outras mais pequenas e partidas. Observe essas pedras à volta do poço (pausa 5s). E agora escolha uma pedra, que pode ser pequena ou grande, e essa pedra representa o maior fator de stress neste momento na sua vida. Se escolher uma pedra muito grande, pode agarrá-la com as duas mãos. Ou pode agarrar com apenas uma pedra, caso esta seja pequena (pausa 10s). Agora, coloque a pedra que escolheu, e que representa a maior fonte de stress na sua vida neste momento, coloque-a no balde e gire a roda para o balde começar a descer em direção à água que existe no fundo do poço (pausa 5s). E quando a pedra começar a mergulhar na água, consegue ver ainda com maior clareza esse fator de stress na sua vida. Consegue ver com maior clareza o que a assusta, o que a preocupa (pausa 10s). E à medida que a pedra se afunda na água, talvez consiga ver o motivo que causa esse stress, ou até o motivo que a levou a participar neste programa, as expetativas que tinha ou que ainda tem (pausa 10s). E quando a pedra fica totalmente submersa no fundo do poço, pode ser que consiga identificar um motivo ainda mais profundo que não tenha visto antes. Ou talvez não. Simplesmente note e veja o que surge (pausa 10s). E todas as suas expetativas, tudo o que desejam ou que esperam, deixe na água desse poço, deixe estar, deixe ficar lá, e simplesmente largue (pausa

5s). Veja se o consegue fazer, tão bem quanto consiga (pausa 10s). E agora, depois de deixar cair a pedra no balde, vire as costas ao poço, e caminhe no sentido contrário, atravessando novamente o campo, continuando sempre a caminhar até chegar ao início do campo (pausa 5s). E regresse ao seu corpo. Notando que está sentada, aqui, nesta sala, observando por instantes a respiração (pausa 10s). Acompanhando o movimento do ar a cada inspiração e a cada expiração, e abrindo suavemente os olhos quando se sentir preparada, tomando contacto com o que a rodeia.”

Partilha

Tal como todos os momentos de partilha pós-exercício/meditação, este deve ser um espaço onde as participantes possam trazer à discussão descobertas que tenham feito acerca dos seus padrões cognitivos e comportamentais, assim como insights sobre a natureza humana e sobre a forma como a mente humana funciona. É fundamental que o/a instrutor/a promova, ao longo de todo o programa, mas principalmente ao aproximar-se o final do mesmo, essa descoberta e a "mente de principiante": a curiosidade de olhar para a experiência como pela primeira vez. Especificamente relacionado com o exercício, deverá ser aberta a discussão sobre dificuldades encontradas em "largar" o balde com os fatores de stress. É esperado do/a instrutor/a que este/a guie a reflexão e que forneça pistas para a forma como as competências desenvolvidas no COMP.ACT poderão ser úteis no "largar" as expetativas, os fatores de stress, etc. Com particular ênfase no mindfulness como ferramenta fundamental à promoção da nossa capacidade de não reagir e de criar um espaço de disponibilidade para experienciar qualquer evento (aceitação), sem o julgar, ou independentemente de ser avaliado positivamente ou negativamente.

Notas:

Obstáculos no rio: antes vs agora

Com o seguinte exercício, as participantes terão oportunidade de refletir sobre o impacto concreto das aprendizagens com o COMP.ACT. É pedido às participantes que imaginem estar numa canoa/barco, no rio da sua vida, em direção aos seus objetivos valorizados, i.e., em direção à vida que desejam ter. Ao longo desse percurso, encontrarão vários obstáculos, que deverão identificar. Esses obstáculos são, no fundo, o que as tem impedido de viver uma vida valorizada (pensamentos e emoções difíceis, sensações corporais, a dor, etc). De seguida, as participantes devem registar a forma como antes do programa tenderiam a lidar com aqueles obstáculos. E, por fim, deverão registar a forma como lidarão com os mesmos obstáculos (ou semelhantes), tendo em conta o que aprenderam no COMP.ACT. As participantes deverão fazer realizar o exercício dois a dois, registando na Ficha de Atividades 11 ("obstáculos no rio")

"Estamos a chegar ao fim deste nosso percurso que foi o COMP.ACT. Esta sessão pretende ser uma síntese ou um resumo do que aprendemos, mas tendo sempre em vista os seus aspetos práticos: o que aprenderam e de que forma isso pode mudar a vossa vida, a forma como lidam com situações difíceis – com a vossa dor, mas não só. E eu vou propor-vos fazermos um exercício, dois a dois, com o auxílio da Ficha de Atividade 11. E, para realizarem o exercício, eu pedia-vos que imaginassem que estão num barco ou numa canoa, a flutuar ou a descer um rio. E que pensem nesse rio como se fosse o rio da vossa vida, ok? A corrente está a ir em direção à vida que vocês querem, aos vossos objetivos, a tudo o que vimos ser importante para vocês e que torna a vossa vida mais plena. E essa viagem, nesse rio, é em grande parte calma, confortável, bonita, mas sabem que há momentos nessa descida do rio das vossas vidas em que o caminho vai ser duro... vai ser difícil. O que eu pedia que fizessem era o seguinte: 1) à medida que se imaginem a descer o rio das nossas vidas em direção aos nossos valores, que obstáculos acham que podem aparecer para que essa viagem seja interrompida, ou para que vão noutra direção diferente daquela que verdadeiramente querem? Que pensamentos podem dificultar esse caminho ou levar-vos a mudar de direção? Que obstáculos preveem encontrar e que têm medo que venham a dificultar esse vosso caminho? E na verdade já estiveram neste rio, e já se desviaram desses obstáculos. Algumas até se perderam pelo caminho a tentar evitar esses obstáculos. Por favor, REGISTEM 2 OU 3 OBSTÁCULOS QUE PODEM ENCONTRAR; 2) Depois, peço-vos que registem a forma como habitualmente lidavam com esses obstáculos quando os encontravam; 3) E, por fim, peço-vos que se lembrem do que aprenderam e do que falámos aqui ao longo do programa COMP.ACT, e que registem de que forma poderão lidar com esses obstáculos daqui para a frente. É possível que os seus obstáculos tenham a ver com a dor, mas não têm que ter a ver com a dor. Na verdade, como sabem, o que aprendemos com o COMP.ACT pode ser aplicado à forma como lidamos com a dor, mas também à forma como lidamos com os nossos pensamentos e as nossas emoções, os nossos medos, etc. Pensem em cada obstáculo e estabeleçam um plano de ação para como lidarão com esses obstáculos caso se deparem novamente com eles. Pensem na forma como poderão conseguir largar o controlo e simplesmente deixarem-se flutuar no rio, como poderão estar conscientes do percurso, aceitar esses obstáculos e continuar comprometidas em seguir em frente em direção aos vossos objetivos de vida. E troquem impressões com as vossas parceiras."

Partilha

Após o exercício a pares, é aberto um espaço de discussão alargada no qual as participantes poderão refletir sobre o exercício realizado. Para além do/a instrutor/a dever estar aberto aos conteúdos e funções que possam emergir da discussão, numa atitude de curiosidade genuína, deverá guiar a discussão no sentido de promover a constatação de que os obstáculos que anteveem são as habituais experiências internas de uma mente programada para o controlo e evitamento do sofrimento. Adicionalmente, o/a facilitador/a deverá promover a reflexão sobre os resultados de utilizarem as estratégias do passado, i.e., as estratégias de controlo e diminuição da dor e do sofrimento em geral, nomeadamente levando a perdas/custos significativos e afastando-as de uma vida plena, com significado e com vitalidade (desesperança criativa). As estratégias novas elaboradas pelas participantes, e que passem por estar com a experiência sem a julgar nem a querer alterar (mindfulness), constatando a impermanência dessas experiências e criando espaço para que elas possam emergir (aceitação), por forma a manterem o compromisso com ações que as aproximem da vida que querem viver (compromisso com ação valorizada), devem ser reforçadas.

Gratidão: o elemento-chave para abraçar a vida

Nesta secção breve da sessão, o/a instrutor/a deverá guiar um exercício de gratidão e promover o debate sobre a importância da gratidão como atitude chave para viver a vida plenamente, interrompendo os padrões ruminativos e de comparação (entre o que temos/onde estamos VERSUS o que queremos ter/onde queremos estar).

"Agora que chegamos ao final do nosso programa, e depois destes 2 meses juntos neste caminho, temos visto que muito do que temos aprendido não se aplica apenas à forma como lidamos com a dor, mas também à forma como lidamos com o sofrimento em geral. Porque parte significativa do sofrimento surge precisamente porque a nossa mente evoluiu para ser tendencialmente controladora e para estar constantemente a avaliar e a comparar como as coisas SÃO e como as coisas DEVERIA SER. Isto é uma característica fabulosa do cérebro humano e que faz com que ele seja uma máquina muito eficaz na resolução de problemas exteriores a nós. Por exemplo, se começar a chover, nós imediatamente solucionamos o problema ao abrirmos o guarda-chuva ou ao irmos abrigar-nos. Se estiver frio, vestimos roupa; se estiver calor, tiramos roupa. E o assunto fica resolvido. E como esta competência do nosso cérebro em resolver problemas externos é tão eficaz, ele assume que pode aplicar a mesma fórmula ao que se passa no seu interior. Então, sempre que há um pensamento ou uma emoção ou uma sensação corporal, um desejo, um sentimento, etc, ele tenta imediatamente ver-se livre dessa experiência. Acontece que, como nesta altura já percebemos, pura e simplesmente não funciona a médio-longo prazo. E, não só não funciona, como tem custos profundos: afasta-nos da vida que queremos. E de facto esta máquina que é o nosso cérebro, como está programado para sinalizar problemas e para os tentar resolver, tem uma espécie de erro de fabrico: está grande parte do tempo em modo negativo e a procurar defeitos e problemas à nossa volta. Isto tem a seguinte consequência: passamos mais tempo a tentar mudar o que a mente nos diz que está mal, do que a contemplar e a sentirmo-nos gratos por tudo o que está bem e temos na nossa vida. Isto não significa que não haja aspetos difíceis nas nossas vidas, que não haja sofrimento e que o sofrimento não seja difícil. Se pensarmos no que vos trouxe aqui ao COMP.ACT, a dor, torna-se claro isso mesmo: que a vida nem sempre é fácil, que sofremos e que esse sofrimento é difícil. Mas ao ficarmos enredados nesse sofrimento e em como acabar com ele, passa-nos completamente ao lado tudo o que já existe na nossa vida. E a ciência diz-nos que isso tem influência no nosso humor, no nosso bem-estar e outros indicadores de saúde. Por exemplo, num estudo [McCullough, M. E., & Emmons, R. A. (2003). Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life. J. Pers. Soc. Psychol., 84, 377-389] feito em pessoas com doenças neuromusculares, concluiu-se que aquelas pessoas que registavam diariamente aspetos das suas vidas pelos quais estavam gratas apresentavam melhores indicadores de saúde psicológica, do que aquelas que registavam as irritações e dificuldades do dia-a-dia, e até daquelas que registavam eventos neutros. Isto dá-nos a indicação da importância de treinarmos a gratidão no dia-a-dia. E aqui a palavra-chave é TREINAR. Porque nós não estamos a propor nada ligado ao pensamento positivo. Nós já percebemos que tentar controlar e influenciar o pensamento é uma tarefa infrutífera. A chave é treinar o sentirmo-nos gratos, como se treinássemos um músculo para o tonificar”.

[É aberta a discussão breve, na qual o/a instrutor/a deverá adotar uma atitude de gratidão radical, promovendo a constatação de que qualquer situação de vida é passível de produzir uma atitude de gratidão].

“E como tudo o que temos aprendido com o COMP.ACT, todas as competências desenvolvidas aqui, implicam treino, implicam praticarmos, proponho-vos um exercício breve.

Sente-se confortavelmente na sua cadeira, com os pés bem assentes no chão, e adote uma postura direita, mas confortável. Encontre uma posição onde esteja confortável, mas alerta. Tente relaxar os músculos faciais, e tente esboçar um ligeiro sorriso, um sorriso que seja confortável e que lhe transmita um sentimento de amabilidade e simpatia. Comece por notar a sua respiração. Apenas note o ar a entrar pelo nariz e a sair pela boca. Note cada inspiração e cada expiração (pausa 10s).

Agora lentamente respire mais devagar, a um ritmo que permita que o corpo comece lentamente a abrandar. Procure respirar de um modo mais lento do que o habitual, mas a um ritmo que seja confortável. Pode, por exemplo, contar até 3 na inspiração, e novamente na expiração: (inspiração) 1, 2, 3; (expiração) 1, 2, 3. O objetivo é atingir uma respiração que seja confortável, tranquilizadora e estável. E que, através dela, consiga repousar a mente na sua respiração. Experimente diferentes ritmos até encontrar aquele que lhe seja mais confortável e lhe ofereça a sensação de que está a abrandar, a acalmar, e a libertar qualquer tensão ou desconforto desnecessários (pausa 20s).

Comece a prática de gratidão tentando sentir como tem cuidado da sua vida, ano após ano… Agora, tente reconhecer tudo o que a tem ajudado nesse cuidado.

Repita para si mesma as seguintes frases, tentando focar-se não só no que as frases dizem, mas tentando ligar-se a um sentimento profundo de gratidão.

Sinto-me grato/a por estar vivo/a.

Sinto-me grato/a pelos ensinamentos que a minha vida me trouxe.

Sinto-me grato/a pelos outros/as que fazem ou fizeram parte da minha vida.

Sinto-me grato/a pela saúde que tenho.

Sinto-me grato/a por ter um corpo que me mantém vivo/a. Obrigada, corpo, por trabalhares tanto para me manter vivo/a.

Sinto-me grato/a por viver em segurança.

Sinto-me grato/a por todas as pessoas que contribuem para o meu bem-estar e saúde (por exemplo, médicos, enfermeiros, farmacêuticos, e todas as pessoas que gostam e cuidam de mim).

Sinto-me grato/a por viver num tempo e local que me permitem ter fácil acesso a cuidados de saúde eficazes.

Sinto-me grato/a pelo trabalho das muitas gerações anteriores à minha, que contribuíram para o conforto da minha vida.

Continue a respirar tranquilamente e note as sensações associadas à vossa respiração (pausa de 20s). Quando se sentirem preparados/as pode voltar gentilmente à sala.”

Partilha

A partilha deverá incidir na experiência da prática, com um enfoque nos obstáculos experienciados à gratidão. O/a facilitador/a deverá estar particularmente atento/a ao enviesamento negativo da mente em formulações a preto-e-branco como “mas eu não tenho saúde”, promovendo uma atitude da saúde como contínuo e não como binarismo (ter vs não ter). A atitude é de gratidão radical: qualquer situação/contexto é suscetível de se encontrar elementos sobre os quais sintamos gratidão.

Notas:

Kit "Vida plena"

"À medida que nos aproximamos do final da nossa sessão e do programa COMP.ACT, gostaríamos de vos deixar uma espécie de kit primeiros socorros, mas que é muito mais do que isso. É um "kit vida plena" (Material de Apoio). São guias ou lembretes para o dia-a-dia, e não apenas para quando a vida se torna mais pesada e mais difícil. Reparem que tudo o que aprendemos com o COMP.ACT foram competências. E como qualquer competência, implica treino. Prática regular. Temos a tendência de procurar ajuda e cuidar de nós quando as coisas correm mal. Mas o trabalho é contínuo, diário, e não apenas quando estamos aflitos. Nenhum de nós pensaria em aprender a nadar no mar alto no meio de uma tempestade. É preciso começar onde temos pé, e num mar calmo. É essa prática regular de nadar num mar calmo que nos permite ganhar a competência para depois enfrentarmos a tempestade. É o mesmo com a nossa mente: é importante praticarmos o cultivo de um conjunto de competências nos dias menos difíceis, para sermos capazes de enfrentar os dias mais difíceis. Como já devem ter concluído, o COMP.ACT não fornece soluções mágicas, porque quando falamos da mente humana, não há soluções e muito menos mágicas. O que há é novas formas de lidarmos com ela e com a vida, formas essas que podemos cultivar e praticar. O resultado é uma mudança na nossa atitude, na forma como olhamos para a vida. E essa mudança é, em si, a solução. A ironia de tudo isto é que passamos a vida a procurar soluções fora de nós para lidar com a nossa mente e o nosso corpo, quando a solução esteve sempre aqui, dentro de nós. [leitura do kit e breve discussão]".

Notas:

Body-scan compassivo

“Por favor, adote uma posição confortável, com os pés bem assentes no chão. Coloque uma mão ou ambas as mãos sobre o coração (ou outra zona do seu corpo que seja mais confortável para si). Colocar as mãos numa parte confortável do corpo, como se estivesse a acalmar aquela zona, tem como objetivo lembrá-la de trazer uma consciência afetuosa para este exercício. Sinta o calor e o toque suave das suas mãos. Fala três respirações lentas e relaxantes, e volte a colocar os braços no seu colo.

Este exercício é uma meditação focada no corpo, mas com uma ligeira diferença: vamos trazer uma atenção calorosa a cada parte do corpo, passando de uma parte para outra, tentando descobrir o que melhor funciona para si. A sua atenção vai debruçar-se sobre o seu corpo, com o calor e o afeto com que se debruçaria sobre uma criança pequena.

Se lhe ocorrerem pensamentos de avaliação e de crítica em relação ao exercício, ou em relação a uma parte do corpo, ou se notar alguma sensação desconfortável numa parte do corpo, pode colocar uma mão nessa parte do corpo, como um gesto de ternura, talvez imaginando calor e bondade a fluir da sua mão para essa zona do corpo, se isso fizer sentido para si.

Se lhe for difícil ter a sua atenção numa parte desconfortável do corpo, dirija gentilmente a sua atenção para a sua respiração, permitindo que este exercício seja tão sereno quando possível.

Agora dirija a sua atenção para os dedos dos pés, e note se há alguma sensação nessa zona do corpo. Note a temperatura, se estão frios ou quentes. Se estão secos ou húmidos. Simplesmente note as sensações nos seus dedos dos pés. E permita que cada sensação seja tal como é. Tente não querer alterá-la. Simplesmente note. E talvez possa, se fizer sentido para si, esboçar um ligeiro sorriso, como se acenasse com reconhecimento e apreço por essa parte do corpo que apoia todo o seu corpo, e que permite que se mantenha de pé, dia após dia.

Se sentir algum desconforto, liberte qualquer tensão e permita que essa zona se suavize, como se a envolvesse numa toalha quente. Se desejar, dirija-se a essa sensação com algumas palavras amáveis, como ´está aqui um ligeiro desconforto, mas neste momento não há problema´.

Agora sinta os seus pés como um todo (pausa 10s). E se hoje não sentir qualquer desconforto nos seus pés, pode dirigir a sua gratidão por não estar a sentir desconforto.

Passe agora a sua atenção para as suas pernas, uma parte de cada vez, notando qualquer sensação corporal que esteja presente, notando se essa zona se sente bem, e se sentir algum desconforto nessa zona, tente enviar calor e afeto para essa zona. O que quer que isso signifique para si (pausa 10s). Note os seus tornozelos, as suas canelas, os joelhos, as coxas, virilhas, pélvis, nádegas (pausa 15s).

E se tonar que a sua mente se distraiu e vagueou, não tem problema. É normal. É o que as mentes fazem. Simplesmente note isso, e regresse às sensações no corpo (pausa 10s). E agora note as pernas como um todo, dando espaço para sentir o que quer que esteja a sentir. E reconheça o quanto as suas pernas trabalham incansavelmente para si, para andar, para a levar às pessoas que ama, fazer as coisas que gosta e precisa. Tente enviar apreço e gratidão para essa zona do corpo, o que quer que isso signifique para si (pausa 15s).

E agora dirija a sua atenção para a zona lombar, para as costas, para a zona da cervical no pescoço. E à medida que passa de uma parte das costas para outra, volte a colocar a sua atenção uma e outra vez em qualquer sensação que esteja presente no momento, certificando-se que envia gratidão, ternura e cuidado a cada parte das costas. Repare como, apesar de essa ser uma zona do corpo que por vezes nos dá problemas e nos causa sofrimento, é ela que nos mantém firmes e de cabeça erguida, que nos permite ver o mundo e aqueles que amamos (pausa 10s). Reconheça o esforço do seu pescoço, sustentando a sua cabeça todo o dia. Se sentir desconforto nessa zona, talvez possa enviar um pouco de ternura, ou pode até colocar uma mão nessa parte do seu corpo, como sinal de amabilidade e de interesse (pausa 10s). E se a sua mente começar a criticar, a julgar o exercício, e a fazer comentários, simplesmente note isso, e volte ao exercício. Permita-se cuidar de si, sem julgamentos, como cuidaria de alguém que ama e que estivesse a passar pelo sofrimento ou desconforto por que passa nesse momento (pausa 15s).

E agora note a sua cabeça: note o couro cabeludo...a testa...os olhos....o nariz.... as bochechas....os lábios....o queixo...Simplesmente note, tentando não reagir e sem avaliar. Simplesmente note (pausa 15s). Talvez possa reconhecer como os olhos e o nariz a guiam, informam e encantam todo o dia. São eles que permitem que veja o mundo e as pessoas que ama. É a partir deles que cria memória. Tente ligar-se a esse sentimento de gratidão, tão bem quanto consiga (pausa 10s).

Quando tiver prestado uma atenção afetuosa a cada parte do corpo, coloque novamente a sua mão sobre o coração, e ofereça a todo o seu corpo um banho de cuidado e de carinho, como se abraçasse alguém que ama (pausa 15s). E quando se sentir preparada, pode abrir os olhos e voltar à sala”.

Notas:

Feedback sobre COMP.ACT

Esta secção serve para as participantes fornecerem feedback sobre os elementos que acharam ter sido mais úteis e porquê. Cabe ao/à instrutor/a "traduzir" a experiência subjetiva das participantes num racional cientificamente corroborado, reforçando os comportamentos, leituras e atitudes que se quer instalar, e corrigindo e/ou desmistificando aspetos erróneos ou contraproducentes. Este é, também, espaço para o/a instrutor/a relembrar como o mesmo princípio que torna a estratégia útil para lidar com a dor, também se aplica a outras áreas de funcionamento. É fundamental que sejam reiteradas as ideias-chave, nomeadamente do exercício de mindfulness: a não reatividade durante a prática (simplesmente notar), a intenção com que se pratica (não para relaxar ou atingir um estado em particular, mas para treinar a atenção, descobrir o funcionamento da mente e como ele influencia o nosso sofrimento, e como quebrar os grilhões dessa programação), e a importância das práticas formais (a prática da mente como o tonificação muscular, ou aprender um instrumento).

Síntese

1) Revisão dos conteúdos fundamentais do programa COMP.ACT: o mindfulness como ferramenta de promoção de abertura, consciência e ligação ao momento presente, por forma a diminuir o piloto automático;
2) A mente como máquina de resolver problemas e que, por isso, é viciada em controlar: o evitamento como resposta por defeito, a qual é diminuída através da prática do mindfulness;
3) Com o aumento da abertura e contacto com o momento presente, tornamo-nos capazes de refletir sobre as nossas motivações e sobre os nossos valores: o que queremos que a nossa vida represente, o que nos move, e o que é verdadeiramente importante para nós;
4) Apresentação do "kit vida plena": mais do que um um kit de primeiros socorros para quando as coisas correm mal, são dicas para implementar diariamente, que promovem uma mudança de atitude em relação à vida, para abraçá-la plenamente, e não apenas um conjunto de estratégias para enfrentar as tempestades;
5) A gratidão como elemento-chave nessa mudança atitudinal;

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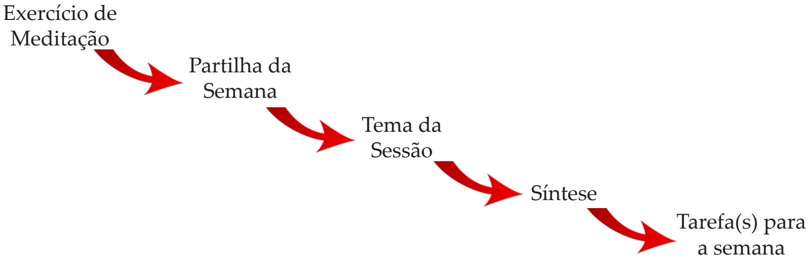
COMP.ACT

TEXTOS DE APOIO

COMP.ACT
Intervenção em dor crónica

Estrutura das Sessões



Regras e Funcionamento das Sessões

Pontualidade	Uma vez que as sessões começam com um exercício de mediação, é fundamental que todas as participantes cheguem a horas (tolerância de 15 minutos), para que não seja interrompido o exercício de meditação.
Assuidade	A estrutura do programa segue uma lógica na qual cada sessão assenta em competências abordadas e praticadas nas sessões anteriores. O resultado que cada participante obterá dependerá do número de sessões nas quais tiver participado.
Confidencialidade	A estrutura do programa segue uma lógica na qual cada sessão assenta em competências abordadas e praticadas nas sessões anteriores. O resultado que cada participante obterá dependerá do número de sessões nas quais tiver participado.
Ouvir com atenção	Este é um espaço para partilhar, mas também para ouvir os outros. Todas as partilhas têm potencial de aprendizagem para todas, pelo que deveremos as partilhas das participantes com abertura e respeito.
Prática e tarefas entre sessões	Os resultados e benefícios do programa dependerão da prática entre sessões, nomeadamente da frequência com que praticam os exercícios de meditação. Vir às sessões é fundamental, mas é igualmente essencial a prática diária do que é aprendido em cada sessão.
Desligar o telemóvel	Os telemóveis devem ser desligados ou colocados em modo voo ou silencioso no início da sessão, para que a mesma decorra sem interrupções nem distrações.

Introdução ao
COMP.ACT

O QUE É O MINDFULNESS?

Mindfulness é a tradução para o termo em Pali (Sanscrito Antigo) “sati”, que diz respeito a um estado mental de atenção no momento presente, intencionalidade, e aceitação dessa experiência.

O mindfulness é, portanto, a capacidade humana de prestar atenção e estar consciente do momento presente, com intenção e sem julgamento.

Neste sentido, o mindfulness envolve o cultivo e o acesso a um modo mental de prestar intencionalmente atenção ao que existe no momento presente, sem a sobre-identificação com os conteúdos da nossa mente (por exemplo, avaliações, julgamentos, comentários, críticas), e permitindo que o momento presente seja plenamente vivido tal como é.

Leituras

Tirch, Silverstein, & Kolts (2016). Buddhist Psychology and Cognitive-Behavioral Therapy: A clinician´s guide. The Guilford Press: New York.

PARA QUÊ MINDFULNESS NA DOR CRÓNICA?

O mindfulness promove uma maior consciência da experiência momento-a-momento, a partir da qual aprendemos a notar os diferentes componentes envolvidos na experiência de dor: a sensação física e os produtos da mente associados a essa experiência (pensamentos sobre a dor, antecipação de consequências da dor, auto-avaliações face às limitações, emoções difíceis). Consequentemente, a promoção de uma maior consciência do momento presente resulta numa maior consciência corporal que poderá resultar na modificação da própria experiência dolorosa, assim como numa maior capacidade de escolher conscientemente as nossas ações, tendo por base o que é importante para nós.

Tarefas para a semana

1. Definir uma altura do dia na qual, durante 15 minutos, pratico um exercício breve de mindfulness (áudio 1: Meditação focada na respiração).
2. Fazer o registo das práticas e trazer na próxima sessão.

O corpo como presente

A DOR PARA ALÉM DA DOR

A Associação Internacional para o Estudo da Dor (IASP) define "DOR" como um fenómeno complexo:
"Uma experiência sensorial e emocional desagradável, associada a um dano efetivo ou potencial, ou descrita em termos desse dano"

- A Dor tem uma natureza subjetiva (por exemplo, o mesmo estímulo físico é sentido de forma diferente por diferentes pessoas)
- A Dor é uma experiência desagradável, logo desencadeia também uma resposta emocional dolorosa
- A Dor pode ser sentida, mesmo quando não há nenhum dano nem nenhuma causa fisiológica para a dor.
- A Dor Crónica resulta de uma interação de factores fisiológicos e psicológicos.
- Os factores psicológicos incluem as emoções e pensamentos que podem desencadear e/ou amplificar a experiência de Dor, perpetuando um círculo vicioso entre fisiopatologia, dor, perturbação e incapacidade.

Leituras

Harvey, A. M. (1995). Classification of chronic pain—descriptions of chronic pain syndromes and definitions of pain terms. The Clinical Journal of Pain, 11(2), 163.

MINDFULNESS FOCADO NO CORPO: ASPECTOS A CONSIDERAR

1) Estes exercícios não têm como objetivo o relaxamento. Pode acontecer (o que é agradável, claro). Contudo, se não acontecer, não se preocupe, porque não é esse o objetivo. O objetivo é estar no presente, tal como o presente é momento a momento;

2) Ao longo do exercício, a mente vai fazer o que está programada para fazer: vai fazer comentários, vai saltitar de tema em tema. É normal. É o funcionamento para o qual está desenhada. Quando notar que a sua mente saiu do exercício, simplesmente observe isso com curiosidade, e volte a prestar atenção ao seu corpo e às instruções, tentando não se criticar;

3) É possível que ao longo do exercício comece a sentir uma sensação desconfortável, nomeadamente nas costas. Isso é também normal, quase toda a gente o sente, e deve-se ao facto de estarmos algum tempo (minutos) na mesma posição. Tente não reagir automaticamente a mudar de posição. Primeiro, apenas note essa sensação, e só depois, se assim entender, pode mudar de posição com consciência. Mas primeiro, simplesmente note e reconheça a vontade de mexer.

Tarefas para a semana

1. Definir uma altura do dia na qual, durante 15 minutos, pratico um exercício breve de mindfulness (áudio 2: Meditação focada no corpo).

2. Preencher a Ficha de Atividade 3 (“Registo da mente”). Tentar estar atenta à forma como reajo a insucessos, fracassos, dificuldades, ou simplesmente quando as coisas não correm como gostaria (no geral, ou especificamente relacionado com a dor). Que coisas digo a mim própria? Como me trato? Qual o tom com que falo e comento sobre o que se passou?

Compaixão I

O QUE É A COMPAIXÃO?

A palavra "compaixão" vem do latim (compati) e significa "sofrer com". A definição de compaixão mais conhecida é a de Dalai Lama, que a descreve como "uma sensibilidade ao sofrimento dos outros e ao próprio sofrimento, associada a um profundo compromisso em tentar aliviar esse sofrimento".

Neste sentido, quando falamos de "compaixão" no COMP.ACT, referimo-nos a essa sensibilidade para com o sofrimento e ao compromisso em aliviar esse sofrimento.

O QUE IMPLICA SER COMPASSIVO?

1) Estar consciente e aberto ao sofrimento dos outros e do próprio;
2) Uma atitude de generosidade, bondade e não-julgamento desse sofrimento;
3) A consciência de que o sofrimento faz parte da experiência humana por que todos/as nós passamos, i.e., que o sofrimento faz parte da nossa humanidade comum.

Leituras

Gilbert, P. (2010). Compassion Focused Therapy: The CBT Distinctive Feature Series. Routledge: New York

ATRIBUTOS DA COMPAIXÃO

SABEDORIA Resulta da constatação de que todos os seres humanos se encontram na mesma jornada de tentar estar bem e livres de sofrimento, que escolheram muito pouco dessa jornada (não escolheram os genes, não escolheram o cérebro que têm, não escolheram as experiências que ocorrem ao longo da vida, etc), que tudo isso pode ser fonte de sofrimento, e que não é culpa nossa.

COMPROMISSO PARA CUIDAR Inclui uma atitude de não-julgamento, bondade e responsabilidade. Compreender que todos nós sofremos e que não escolhemos esse sofrimento, e termos a força para olhar para ele com intenção calorosa para o aliviar, resulta numa atitude de aceitação e não julgamento em relação a esse sofrimento. O compromisso com o alívio do sofrimento (dos outros ou do meu sofrimento) implica assumir-se a responsabilidade da mudança. Agir e fazer escolhas que tornem a minha vida mais próxima da vida que eu quero.

FORÇA E CORAGEM São necessárias para não nos enredarmos nos mecanismos automáticos da nossa mente. Termos a coragem necessária para olhar de frente para o sofrimento, vê-lo como ele é, e ser capaz de tolerar o desconforto que isso implica.

Tarefas para a semana

1. Praticar pelo menos 1x por dia, alternadamente, o “body-scan” (áudio 2: Mindfulness focado no corpo) e/ou o “loving-kindness” (áudio 3: exercício loving-kindness);

2. Registar na Ficha de Atividade 4 “o que diria a alguém que ame e que está a passar exatamente pela mesma situação”. Nos momentos mais difíceis, registar frases que diria a alguém que amo a passar exatamente pela mesma situação; No fundo, o que poderia dizer que, no fim, o confortasse. Que essa pessoa, ao ouvir, gostaria de levar;

3. Registar na Ficha de atividade 5 “os 10 dedos da gratidão”. A tendência natural da mente é para o enviesamento (faz parte da nossa evolução enquanto espécie humana). Em função desse enviesamento focado na informação negativa, não conseguimos ver (e frustramos porque não somos capazes de ver) o que temos de bom na nossa vida. Porque por muito bom que seja, não será o que gostaríamos que a nossa vida fosse. Habitualmente não somos capazes de reconhecer que o que já temos é uma bênção. É importante aprendermos a reconhecer o que já se tem, e não o que falta. Para isso, em dias alternados, (i.e., 4 dias da semana), devo registar os 10 dedos de gratidão: penso em 10 coisas no meu dia que tenha gostado e sobre as quais eu esteja grata. Não podem ser coisas grandes e genéricas, do tipo “estou grata pelos meus filhos, pela minha família, estou grata por ter acordado hoje”. Tudo isso é fantástico, mas para este exercício não contam. Para este exercício, o que conta são aspetos específicos, quanto mais específicos, melhor. Por exemplo “estou grata por ter visto o pôr-do-sol hoje, que estava muito alaranjado/avermelhado e intenso”. Ou algo como “estou grata pela conversa ao almoço com a minha colega, consigo sentir ainda a satisfação que foi conversar com ela”.

Compaixão II

A IMPORTÂNCIA DO TOQUE NA TRANQUILIZAÇÃO

Enquanto seres humanos, as relações interpessoais assumem um papel fundamental na nossa história evolutiva. Nascemos seres especialmente vulneráveis e dependentes, quando comparados com outros animais. Como forma de assegurar a nossa sobrevivência nos primeiros meses de vida, o ser humano está dotado de um cérebro particularmente sensível e responsivo ao sofrimento de outro ser humano, produzindo um conjunto de respostas capazes de aliviar o sofrimento de um ser recém-nascido.

Vários estudos têm mostrado a importância do toque na promoção de um estado de tranquilidade, calma e afeto positivo. A ciência tem sugerido que o toque (como, por exemplo, o contacto pele com pele entre pais/mães e bebés) tem um efeito fisiológico na redução da hormona do stress (cortisol), e aumento de hormonas ligadas a um estado de tranquilidade e contentamento (por exemplo, oxitocina).

Leituras

Ellingsen, D. M., Wessberg, J., Chelnokova, O., Olausson, H., Laeng, B., & Leknes, S. (2014). In touch with your emotions: oxytocin and touch change social impressions while others' facial expressions can alter touch. Psychoneuroendocrinology, 39, 11-20.

Jakubiak, B. K., & Feeney, B. C. (2016). A sense of security: Touch promotes state attachment security. Social Psychological and Personality Science, 7(7), 745-753.

Vittner, D., McGrath, J., Robinson, J., Lawhon, G., Cusson, R., Eisenfeld, L., ... & Cong, X. (2018). Increase in Oxytocin From Skin-to-Skin Contact Enhances Development of Parent–Infant Relationship. Biological research for nursing, 20(1), 54-62.

Tarefas para a semana

1. Praticar, alternadamente, 1 vez por dia: 3 vezes “body-scan” (audio 2), 4 vezes “suavizar, tranquilizar e permitir” (audio 4).

2. No dia em que escolher praticar “body-scan”, pratique também, noutro momento do seu dia, o exercício ”Loving-Kindness” (audio 3).

Aceitação

HÁ MAIS PARA ACEITAR DO QUE APENAS A DOR

Que eu tenha a serenidade para aceitar as coisas que eu não consigo mudar, a coragem para mudar o que eu posso mudar, e a sabedoria para distinguir ambas.

Muito do trabalho que temos desenvolvido com as práticas de mindfulness tem-nos permitido perceber a natureza da mente e a relação entre o seu funcionamento e a experiência de dor. Um dos aspetos que se torna claro é que nós não somos os nossos pensamentos, nem as nossas emoções, nem a nossa dor: tudo isso são experiências que ocorrem dentro de nós, mas elas não definem a nossa identidade. Essa constatação dá-nos mais espaço de manobra para escolhermos as nossas ações, em vez de agirmos automaticamente e de forma irrefletida. Isto não significa que a dor desaparece. Tornarmo-nos mais conscientes do momento presente não elimina necessariamente a dor, e não é uma forma de fugir da nossa experiência pessoal, mas permite-nos ver a nossa dor num contexto mais alargado da nossa existência: somos mais do que a dor.

Mas a nossa vida não espera que as experiências difíceis acabem para fazermos o que é importante para nós. A vida não espera que a dor passe para que possamos seguir com a nossa vida. É neste contexto que surge o conceito de Aceitação. Sempre que falarmos em aceitação ao longo do COMP.ACT, não queremos dizer para simplesmente "aguentar" a dor, nem para "não ligar" à dor, nem para "desistir" de aliviar a sua dor. O que queremos dizer com "aceitação" é que seja capaz de encontrar em si um espaço no qual a dor possa co-existir consigo, sem que a sua vida fique em espera. Não está em causa "resignar-se" passivamente em relação à sua dor, mas sim empreender, de forma activa e com compromisso, em ações que a levem a ter uma vida mais realizada, mesmo com alguma dor presente e com pensamentos e emoções desagradáveis.

Leituras

Dahl, J., & Lundgren, T. (2006). Living beyond your pain: Using acceptance and commitment therapy to ease chronic pain. New Harbinger Publications.

Tarefas para a semana

1. Uma vez por dia, alternar entre body-scan (audio 2) e meditação focada na respiração (audio 1).
2. Refletir e preencher a Ficha de Atividade 7 (“de que tenho desistido”).

(Re)Descobrir Valores

PARA QUÊ LIVRAR-ME DA DOR?

Há muito tempo que tem estado em luta contra a sua dor. Ao longo dessa dolorosa batalha, a sua vida tem sido, em certa medida, consumida por essa luta diária. O tempo que tem passado a tentar arranjar soluções para a sua dor provavelmente tem-na deixado exausta, com stress, com inúmeras desistências de outras áreas da sua vida importantes para si. E depois de todas essas tentativas a dor continua presente. E é possível que esteja tão farta da sua dor e de tentar ver-se livre da sua dor, ao ponto de já não se lembrar por que razão quer que ela desapareça. Muitas batalhas acabam por chegar a esse ponto: continuamos a discutir e a lutar, mesmo sem sabermos por que razão começámos a fazê-lo. À primeira vista, esta pergunta ("para quê livrar-se da dor?") parece um pouco ridícula. Mas sugerimos que olhe para a questão de outra perspetiva.

Tire um momento para refletir sobre a seguinte questão: se eu não tivesse dor, o que faria com a minha vida? Ou seja, que coisas (actividades, desejos, sonhos, objetivos de vida, etc) eu não estou a concretizar por causa da minha dor ou para evitar ter dor?

Talvez essa seja uma questão que tenha sido negligenciada por si ao longo da luta por se ver livre da sua dor. E se fosse possível fazer o que é importante para si mesmo com a sua dor presente?

Leituras

Dahl, J., & Lundgren, T. (2006). Living beyond your pain: Using acceptance and commitment therapy to ease chronic pain. New Harbinger Publications.

O QUE SÃO VALORES?

Quando no COMP.ACT falamos em "Valores", referimo-nos a afirmações sobre o que queremos fazer com a nossa vida, e que reflectem o que é mais importante para cada um de nós. Nesse sentido, os nossos valores dão significado à nossa vida, uma vez que são princípios orientadores que nos guiam e motivam a agir ao longo da nossa vida.

Valores são como direcções numa bússola que ajudam a orientar o rumo que queremos que a nossa vida tenha. Os valores são as respostas que damos às questões:

"O que é verdadeiramente importante para mim?"
"O que quero que a minha vida represente?"
"Que qualidades e pontos fortes quero desenvolver?"
"Como quero comportar-me nas minhas relações com os outros?"

Tarefas para a semana

1. Fazer body-scan 1x por dia.
2. Escolher conscientemente (com propósito!) fazer uma ação que reflita os seus valores em pelo menos 1 área da sua vida, pelo menos 1x por dia.

O QUE É A AÇÃO COMPROMETIDA?

Ao longo das últimas sessões, temos aprendido um conjunto de ferramentas para sermos capazes de tolerar experiências difíceis associadas à nossa dor, no sentido de criarmos um espaço em nós a partir do qual somos capazes de estar com essas experiências e seguir em frente com a nossa vida.

As práticas de mindfulness têm levado a uma mudança na forma como olhamos para a nossa experiência (a dor e não só), permitindo que olhemos para a experiência como ela é, assim como que sejamos capazes de escolher livremente que comportamento ter, em vez de agirmos automaticamente com o único objetivo de nos vermos livres da nossa dor. Mas para atingirmos a vida que valorizamos é preciso mais do que isso.

É preciso compromisso. O verdadeiro poder e liberdade surgem quando juntamos a aceitação com o compromisso de agir de acordo com os nossos valores. Para isso é necessário escolher, estipular objetivos de acordo com os nossos valores, e traçar um plano.

Agora que já treinámos a capacidade de estar com os nossos pensamentos, emoções e sensações desagradáveis, sem agir automaticamente para os eliminar, chegámos ao momento de pôr mãos à obra e irmos na direção para a qual a bússola dos nossos valores nos aponta!

Leituras

Dahl, J., & Lundgren, T. (2006). Living beyond your pain: Using acceptance and commitment therapy to ease chronic pain. New Harbinger Publications.

COMO FORMULAR OBJETIVOS QUE SEREI CAPAZ DE CUMPRIR?

Não basta estabelecer objetivos para assegurar que eles serão cumpridos. É importante o compromisso com esses objetivos valorizados. Para isso, a forma como formulamos os objetivos aumentarão ou não a probabilidade de os cumprirmos. Assim, os objetivos devem ser:

Específicos É essencial especificar as ações que deverão tomar para o atingir – quando e onde as vão tomar, e quem está envolvido nessa ação. Por exemplo, um objetivo pouco especifico seria "vou sair mais vezes de casa". Um objetivo específico seria "vou andar 1h por dia, 6 dias por semana, de casa até ao parque e voltar".

Importantes Se determinado objetivo estiver ao serviço dos nossos valores, então será importante e terá significado para nós. É fundamental que sejamos capazes de perceber se o objetivo está ao serviço dos nossos valores, ou se é mais uma forma de controlar e eliminar a dor e/ou emoções difíceis.

Funcionais O objetivo deve ajudar-nos a caminhar para uma vida melhor, mais enriquecedora e com mais qualidade de vida.

Realistas Deve ser alcançável, i.e., deverão ter em consideração a vossa saúde, tempo, capacidade financeira e, de um modo geral, a vossa capacidade de o atingir.

Temporalmente específicos Para aumentar a especificidade do objetivo, deverão ter uma data para a sua realização, e essa data deve ser tão concreta quanto possível.

Tarefas para a semana

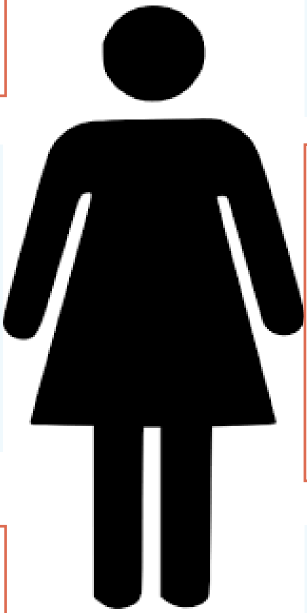
1. Praticar 1 vez por dia body-scan (audio 2) e alternar com mindfulness da respiração (audio 1) OU loving-kindness (audio 3).
2. Realizar as ações formuladas na Ficha de Atividades 10 ("quatro passos para a ação comprometida"), e registar obstáculos sentidos, assim como estratégias utilizadas para lidar com esses obstáculos.

KIT VIDA PLENA

Pare e simplesmente respire
Durante o seu dia, crie momentos para respirar. Tire 2-3 minutos para simplesmente notar a sua respiração e reduzir o stress diário.

Largue o controlo
A mente é uma máquina de resolver problemas, e vai tender para esse seu estado natural. Esteja atenta às suas rasteiras, simplesmente note essa tendência e faça o que a aproxima da vida que quer ter.

Cuide de si como de alguém que ama
Por vezes somos duros e críticos connosco. Em momentos difíceis e em que sinta que falhou, lembre-se de falar consigo como falaria com alguém que ama a passar pela mesma situação.



Oiça o corpo
Pratique o body-scan (meditação focada no corpo) diariamente. Esta prática promove a sua consciência corporal, distinguindo a sensação física e os pensamentos e emoções associados.

Consulte a sua bússula antes de agir
A mente é controladora por natureza, e por isso vai dizer-lhe para evitar situações dolorosas. Antes de agir, pergunte a si mesma "se evitar isto, estarei mais próxima ou mais longe do que é importante para mim e da vida que eu quero?"

Mantenha o compromisso
Estabeleça objetivos concretos e realistas para a sua vida, e mantenha- se comprometida com eles. Não se esqueça que o progresso não é uma linha recta: há avanços e recuos. E se se perder pelo caminho, pode sempre voltar ao trajeto em que estava e em direção a uma vida valorizada.

Cultive a gratidão e o olhar de principiante
Muitas vezes deixamo-nos enredar pelas nossas lutas, ao ponto de não vermos o que temos. Procure diariamente olhar para um objeto ou pessoa, e note alguma característica que nunca tinha reparado. Olhe para a sua vida com esse mesmo olhar curioso, e identifique diariamente 5 aspetos da sua vida pelos quais está grata.

COMP.ACT

HANDOUTS

COMP.ACT
Intervenção em dor crónica

Ficha de Actividade 1

REGISTO DA MINHA PRÁTICA

Dia	*Prática*	*Tempo*	*Obsv./Comentários* *(O que resultou melhor para mim?)*

Ficha de Actividade 2

COMO LIDO COM A MINHA DOR

Que estratégias utilizo para lidar com a minha dor? *(sensações, pensamentos, emoções, etc)*	*É eficaz?* *(a dor diminui? sente-se com mais qualidade de vida? sente-se mais feliz? etc)*	*O que tenho perdido enquanto tento eliminar a dor?* *(o que deixei de fazer, o que perdi, que impacto nas minhas relações com as pessoas que amo? etc)*

As minhas lutas (tudo o que causa sofrimento nas tentativas de eliminar a dor)

A minha vitalidade (tudo o que dá vitalidade, bem-estar e um sentimento de realização nas tentativas de eliminar a dor)

Ficha de Actividade 3

Registo da Mente

Situação *(onde estava, com quem estava, o que aconteceu)*	*O que senti* *(que emoções tive? senti-me triste? frustrada? irritada? ansiosa? etc)*	*O que disse a mim própria* *(como falei comigo sobre o que aconteceu? foi num tom crítico e exigente? no geral, como me tratei? o que fiquei a pensar sobre mim e sobre a minha vida?)*

Ficha de
Actividade 4

O QUE DIRIA A ALGUÉM QUE SOFRE COMO EU

Situação *(onde estava, com quem estava, o que aconteceu)*	*O que senti* *(que emoções tive? senti-me triste? frustrada? irritada? ansiosa? etc)*	*O que diria a alguém que estivesse a sofrer como eu?* *(se alguém que eu amo estivesse a sentir o que estou a sentir, o que lhe diria? o que acho que essa pessoa precisaria de ouvir? de que forma gostaria que falassem com ela?)*

Ficha de
Actividade 5

OS 10 DEDOS DA GRATIDÃO

Dia	*10 dedos de gratidão* *(registe 10 aspetos da sua vida e/ou naquele dia em relação aos quais se sente grata. Tente ser o mais específica possível. Exemplo "estou grata por ter um corpo que me permite estar viva, de ter pulmões que me permitem respirar" ou "estou grata pelo pôr-do-sol que vi hoje", "estou grata pela conversa que tive com a minha amiga", etc)*

Ficha de Actividade 6

DESCREVER *VS* AVALIAR

Escolher zona do corpo	*Descreva a sensação nessa zona do corpo*	*Avalie a sensação nessa zona do corpo*
1. escolha uma zona do corpo onde esteja a sentir desconforto ligeiro/moderado; *2. note essa zona do corpo com atenção plena.*	*1. simplesmente descreva a sensação física, sem a avaliar: é ardor? é picada? é pressão? qual a temperatura? - tente não utilizar expressões como "bom", "mau", "mais", "menos", etc* *2. Note como se sente: estou triste? estou ansiosa? estou irritada? estou frustrada? etc*	*1. Avalie a sensação no corpo: é fácil ou difícil senti-la? dói muito ou pouco? Acha que vai passar rápido ou que vai ter essa dor muito mais tempo?* *2. Note como se sente: estou triste? estou ansiosa? estou irritada? estou frustrada? etc.*

Ficha de Actividade 7

DE QUE TENHO DESISTIDO

DO QUE DESISTI? (De que coisas desisti na minha vida por causa da dor, para não a sentir, ou para evitar emoções difíceis)

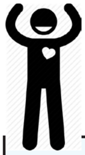
COMO GOSTARIA QUE A MINHA VIDA FOSSE? (Se não tivesse que lidar com a dor e com as minhas emoções difíceis, como gostaria que a minha vida fosse? trabalho, relação com familiares e amigos, lazer, hobbies)

Ficha de Actividade 8

O QUE ME TRAZ AO COMP.ACT

POR QUE VENHO ÀS SESSÕES? (Reflita sobre o que a motiva a estar nas sessões do COMP.ACT)

Ficha de Actividade 9



O QUE É IMPORTANTE PARA MIM

TRABALHO/EDUCAÇÃO (refere-se ao seu local de trabalho e carreira, educação, conhecimento e competências que gostaria de desenvolver. Como quer comportar-se com os seus clientes, colegas, patrão, etc? Que características pessoais suas gostaria de poder trazer para o seu trabalho? Que competências gostaria de desenvolver?)

RELAÇÕES (Refere-se à intimidade, proximidade, amizade e estabelecer relações na sua vida. Inclui as relações que estabelece com os/as seus amigos/as, pais, familiares, namorado/a e outros contactos sociais. Que tipo de relações quer construir? Como quer ser nessas relações? Que características pessoais quer desenvolver?)

O QUE É IMPORTANTE PARA MIM

SAÚDE/CRESCIMENTO PESSOAL (Refere-se ao seu desenvolvimento contínuo enquanto ser humano. Pode incluir religião, criatividade, desenvolvimento de competências, exercício físico, nutrição. Como gostaria que a sua vida fosse nesse domínio?).

LAZER LAZER (Refere-se à forma como passa o seu tempo livre e como gostaria de passar. Que características gostaria de desenvolver e que atitude gostaria de ter no seu tempo livre?).

Ficha de
Actividade 10

4 PASSOS PARA COMPROMISSO COM AÇÃO

1. DOMÍNIO DA MINHA VIDA (Escolha uma área da sua vida que considere ser extremamente importante para si: pode ser a sua vida familiar, as suas relações interpessoais, a sua vida profissional, ou o lazer/hobbies).

2 .VALORES (Escolha que valores quer que façam parte dessa área da sua vida. Por exemplo, se escolher a área "vida familiar", registe que valores quer que guiem o seu comportamento nesse contexto: que mãe, companheira, filha quer ser? que valores guiarão o seu comportamento nesse contexto? por exemplo, poderá ser a generosidade, o suporte emocional, a disponibilidade incondicional, etc).

4 PASSOS PARA COMPROMISSO COM AÇÃO

3. OBJETIVOS (Escolha que objetivos quer traçar para si nessa área da sua vida, tendo em conta os valores que estipulou serem importantes para si nessa área da sua vida. Não se esqueça que os objetivos devem ser: específicos, realistas e temporalmente identificáveis. Por exemplo, alguém que escolha "vida familiar" como área de vida, e que escolha como valores "generosidade, suporte emocional e disponibilidade incondicional", pode traçar como objetivo "todos os dias, depois do trabalho, vou ligar à minha mãe e perguntar-lhe como correu o dia" ou "no primeiro sábado de cada mês vou com o meu filho dar um passeio a pé para conversarmos").

4. AÇÕES (escolha 2 ações com as quais estará comprometida a realizar, e que poderá implementar já, tendo em conta os seus objetivos e valores para essa área de vida que escolheu).

Ficha de
Actividade 11

OBSTÁCULOS NO RIO

1. OBSTÁCULOS (Identifique 2 ou 3 obstáculos que a têm impedido de ter a vida que deseja para si, incluindo obstáculos que pensa poder continuar a encontrar após o término do programa COMP.ACT. Podem ser sensações físicas, mas podem ser também outras experiências. Por exemplo, podem ser memórias, podem ser preocupações, medos, pensamentos sobre si - por exemplo, que não será capaz, que não merece, etc).

2 .ESTRATÉGIAS ANTIGAS (PRÉ-COMP.ACT) (Pense na forma como lidava com aqueles obstáculos antes de participar no programa COMP.ACT. Por exemplo, se um dos obstáculos que escolheu foi a sua dor, registe a forma com que habitualmente lidava ou com que lutava com a sua dor no passado).

OBSTÁCULOS NO RIO

3. ESTRATÉGIAS NOVAS (PÓS-COMP.ACT) (Olhe novamente para os obstáculos que identificou e que pensa poder enfrentar no rio da sua vida. Lembrando-se do que pode ter aprendido com o COMP.ACT, registe novas formas de lidar com esses obstáculos. Seja o mais específica possível. Por exemplo, há exercícios específicos que poderia usar caso se depare novamente com aqueles obstáculos?).