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**LEAN ON ME AGAINST COVID-19: DYADIC
COPING AS A MEDIATOR BETWEEN EMOTIONAL
DISTRESS AND RELATIONSHIP QUALITY**

Dissertação no âmbito do Mestrado em Psicologia Clínica e da Saúde, na área de especialização em Psicoterapia Sistémica e Familiar orientada pelas Professora Doutora Ana Paula Pais Rodrigues Fonseca Relvas e Professora Doutora Alda Patrícia Marques Portugal e apresentada à Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra.

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RESUMO

Introdução: A doença de COVID-19 foi declarada pandemia mundial pela Organização Mundial de Saúde em 2020. Devido à sua rápida propagação, novidade e, pela literatura prévia sobre crises sanitárias, espera-se que possa provocar *distress* emocional. No casal, os indivíduos não só recorrem ao seu parceiro para apoio, mas o *distress* vivido por cada elemento poderá afetar a qualidade da relação. Por existir esta relação bidirecional, o *coping* diádico surge para a compreensão das estratégias de enfrentamento utilizadas pelo casal, podendo ser influenciado por fatores sociodemográficos.

Objetivos: Avaliaram-se os níveis de ansiedade, stress e depressão (*distress* emocional) dos casais portugueses para averiguar o papel mediador do *coping* diádico entre estes e a qualidade da relação conjugal, avaliando, também, como o género modera a relação entre o *distress* e o *coping* diádico.

Método: A amostra incluiu 581 participantes, dos quais 84.4% mulheres, com idade média de 39.7 anos, recolhida entre março e maio de 2020.

Resultados: Os resultados sugerem que: (a) não foram revelados sintomas significativamente elevados de *distress* emocional; (b) o género como mediador comprova-se em níveis de *distress* normal, nas mulheres quanto maior o *distress* emocional, menor é o recurso às estratégias de *coping*, mas em níveis mais elevados, esta moderação não se verifica e (c) não existe efeito mediador do *coping* diádico para níveis elevados de *distress* emocional.

Conclusões: Contrariamente ao esperado, os níveis de *distress* emocional foram reduzidos o que levou a um impacto menor deste nos casais. Estes resultados, observados em estudos sincrónicos, mostram que o papel do *coping* diádico em situações extremas diferencia-se do estabelecido pela literatura.

Palavras-chave: Pandemia de COVID-19; *Coping* Diádico; Qualidade da relação conjugal; *Distress* Emocional.

ABSTRACT

Background: The COVID-19 disease was declared pandemic by the World Health Organization in 2020. Due to its fast pace, uncertainty, and the current literature about diseases crisis, its expected an increase in emotional distress. In the couple, not only do people turn to their partner for support, but their emotional distress can affect the relationship. As result of this bidirectional relationship, dyadic coping came as concept to understand how the couple strategizes to lessen the effects of emotional distress, with the caveat that it is also influenced by multiple sociodemographic variables.

Objectives: This study aimed to evaluate depression, anxiety and stress levels (emotional distress) of Portuguese couples and to assess the mediating role of dyadic coping between said distress on the couple's relationship quality, while integrating gender moderating dyadic coping's performance.

Method: The sample included 581 participants, 84.4% women, with a mean age of 39.7 years old, collected between March and May of 2020.

Results: The results show that: (a) the sample didn't exhibit high levels of emotional distress; (b) gender as a moderator, for normal levels of distress, in women the more emotional distress the less use of dyadic coping, however, however in above normal distress levels this moderation effect withdraws; and (c) there isn't a mediator effect of dyadic coping for high distress levels.

Conclusions: This paper, along recent others, found that the population surprisingly didn't exhibit the expected high levels of emotional distress which led to a lowered impact on couples. These results show that the role of dyadic coping in extreme situations is different from the one expected by the literature.

Keywords: COVID-19 pandemic; Dyadic Coping; Relationship Quality; Emotional Distress.

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INTRODUCTION

The COVID-19 Pandemic

On the very last day of 2019, the first case of a viral pneumonia with an unknown cause was reported by China (World Health Organization, 2020a). A few days after, more and more cases of this mystery pneumonia arose, and by mid-January it was established that the cause is a novel coronavirus, named SARS-CoV-2, which triggered the disease COVID-19 (World Health Organization, 2020a).

This virus proved to be much hazardous because it's airborne, has a long incubatory stage (one to fourteen days) before it would even start showing symptoms, in which the host was already highly contagious (World Health Organization, 2020b). When symptoms manifested, they were easily mistaken by other less worrying diseases like the flu or common cold (World Health Organization, 2020b). In the beginning of March 2020, two months after the first reported case, there were already 100,000 cases in the world (World Health Organization, 2020a), rising at an exponential rate, with more than 225 million total cases globally by the time this document is being produced (Worldometer, 2021). March 11th marks the day in which the World Health Organization (2020a) declares COVID-19 as a pandemic.

In Portugal, the Directorate-General for Health, activates a contingency plan on that same day and a week later, on March 18th, the government issued the first emergency state by means of legal decree n. ° 14-A/2020 (Diário da República, 2020a), to be executed by the legal decree n. ° 2-A/2020 (Diário da República, 2020b). Portugal maintained a streak of emergency states (Assembleia da República, n. d.), complemented with calamity and contingency situations, according to necessity, a series that goes on by the date this document is being produced, September of 2021 (Vieira de Almeida, 2021) (Figure 1).

Being a virus (instead of bacteria or other) means that today's medicine still can't produce very effective treatments (Seladi-Schulman, 2020). Doctors can only control, manage and alleviate symptoms while the patient's own immune system deals with the virus (Seladi-Schulman, 2020). Although to fight some known viruses there have been antiviral drugs developed, humanity's main defence against them is through prevention by vaccines (Seladi-Schulman, 2020). Being such a novel virus, research couldn't be done in developing an antiviral but preventing its spread, through vaccination, which immediately went under study and begun administration by the end of 2020 (World Health Organization, 2020b). Presently, roughly 37% percent of the world population are fully vaccinated, adding 11% that are partially vaccinated (Ritchie et al., 2021), while Portugal is considered one of the

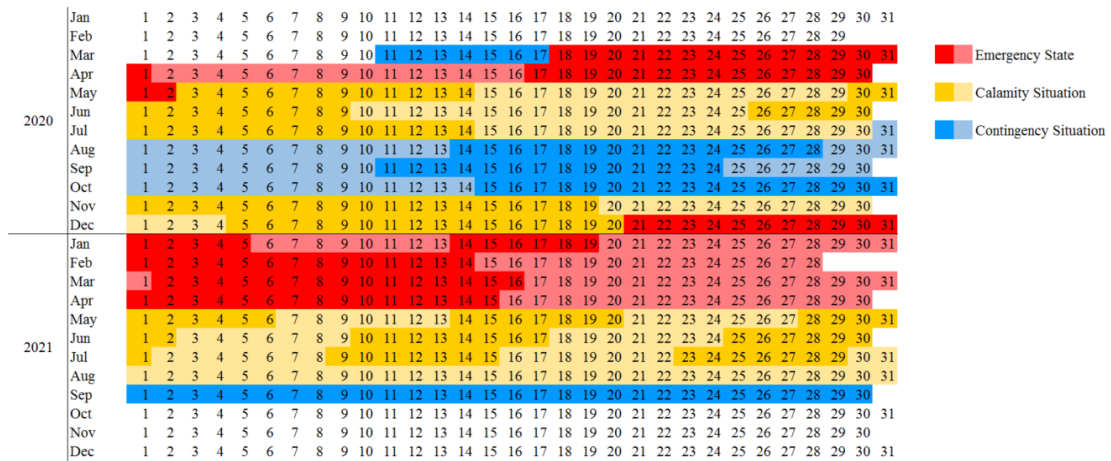
first countries to have virtually completed vaccine administration at 87% of population fully vaccinated (Ritchie et al., 2021). While waiting for this new vaccine to be developed, other measures had to be taken to slow the spread of the virus as for these emergency states issued by the government.

The measures imposed by the government will depended on the intensity level of the situation (emergency states the most restrictive, then calamity situations and lastly, contingency situations), and can entail the brief halt of some human rights e.g., freedom of movement, of work and education (Vieira de Almeida, 2021). For example, businesses that weren't essential and schools were temporarily closed, as well as borders between districts; and working remotely was enforced, if possible (Vieira de Almeida, 2021). Every citizen was moved indoors, to their own homes, as a national confinement measure that could only be broken by a finite number of activities (e.g., buying/taking care of essentials and walking pets) (Vieira de Almeida, 2021).

Other measures taken by the Portuguese government to prevent the spreading of COVID-19 throughout the country were social distancing, mask wearing, use of hand sanitizer frequently and disinfecting surfaces (Directorate-General for Health, n. d.).

Figure 1

Graphic Representation of Emergency States, Calamity and Contingency Situations in Portugal by Date



Note. The periods are represented by active law duration; Emergency state is in red; Calamity situation is in yellow and contingency situation is in blue. Each has two tones of the same colour family to discern different laws.

Emotional Distress and Relationship Quality

The context of this pandemic due to its fast-pace, high mortality, and uncertainty, can produce out of the ordinary levels of worry, fear, and stress (World Health Organization, n.

d.). Adding to it, the measures taken that changed our normal routines, such as the confinement, home-schooling, and social distancing, may have affected our mental health (World Health Organization, n. d.).

Burkova et al. (2021) evaluated anxiety levels across 23 countries in the first wave and found an increase, especially for women, as well as Randall et al. (2021) in 27 countries. Pedrosa et al. (2020) also witnesses increasing levels of anxiety, depression, stress, and alcohol addiction, warning that people most vulnerable to these changes are health workers, the elderly, children, college students, the LGBTQ+ community and other minorities, people with few resources, and patients of psychiatric disorders.

A crisis like COVID-19 that fundamentally altered our routines, lifestyle and relations led to a struggle to balance all the roles people usually rely on third parties to maintain (Substance Abuse and Mental Health Services Administration, 2020). For example, while still managing their workload, household and personal health, each person had to embody the roles of doctors and nurses for their family, since most cases didn't require hospitalization but home isolation; had to be their children's teachers, due to schools closing; even roles that, at first don't seem to matter, like beauty services and fitness, in an attempt to keep routine. This struggle can lead to increased levels of stress which disturbs the individual's mental health (Substance Abuse and Mental Health Services Administration, 2020).

Mental health affects every aspect of one's life (MentalHealth, 2020). Mental health has influence over thinking, feeling and behaviour, which allow to categorize between psychological, emotional, and social well-being (MentalHealth, 2020). Although all these mental health's components are surely impacted by COVID-19, this paper focuses on the emotional facet. As such, the impact of COVID-19 can result in Emotional Distress (ED), which is mainly manifested by depression (Kandola, 2020), anxiety (Kandola, 2020), and stress (Douglas et al. 2009). ED is an expected response to stressful events, as stated before, and often temporary, however, if not dealt with, its symptoms can increase in severity and evolve to be mental disorders (Kandola, 2020). Douglas et al. (2009) have shown that previous events as these, provoke high levels of ED which have led to the increase prevalence of diagnostics such as Post Traumatic Stress Disorder, Major Depression and Generalized Anxiety Disorder. This overwhelming experience that generates ED, can produce behaviours like fatigue, falling behind on tasks, difficulty coping, and many others (Kandola, 2020). Consequently, emotionally distressed individuals can affect their families and intimate relationships (Substance Abuse and Mental Health Services Administration, 2020).

Zeidner and Matthews (2010) explain that anxiety is a basic negative emotion that corresponds to the state of uncertainty. As such, it can be a worry when thinking about the future and anticipation of events and disasters, being more amplified when the person judges that said situation and its outcomes are out of one's control (Zeidner & Matthews, 2010). Anxiety can trigger the sympathetic nervous system leading to physical symptoms but can also have mental implications of nervousness and intrusive thoughts (Zeidner & Matthews, 2010). Beck and Alford (2014) show that depression has had a very constant definition over all ages of history being summed up to melancholia. However, they modernized the concept and added to it the signs used to form a diagnostic. First, they define depression as mood disorder with feelings of apathy, sadness and loneliness; accompanied by thoughts associated to a negative self-concept and self-punitive wishes; then, they note more behaviour and physical changes as in eating and sleeping habits, and other leisure activities, with an emphasis on either overall agitation or retardation.

Lazarus (as cited in Bodenmann, 1995) defined stress as a transaction between a person and their environment. Instead of conceptualizing stress as a negative stimulus or a psychological/physiological response, Lazarus defends that stress is dependent on the person's appraisal of a certain event. As such, stress will only come if a person perceives an event as harmful and/or endangering and believes it will take on more resources than it has readily available to deal with. Lazarus states two evaluations for this appraisal. In the first, the primary appraisal, the ambiguity, controllability, relevance, and other factors will be measured by the individual, and then, in the secondary appraisal, they will measure their response capacity to counteract the event (as cited in Bodenmann, 1995). Thus, he defines coping as the behavioural, cognitive and/or social response they feel they possess in an effort to manage this transaction between person and environment. Randall and Bodenmann (2009) also distinguish stress by three dimensions: internal or external, ~~if~~ major (critical life events) or minor (day to day stress), and acute or chronic. These dimensions are important to consider for it has been established that the duration of stress (acute or chronic) has a very different impact on relationships (Randall & Bodenmann, 2009).

There has been much debate whether ED is only an individual phenomenon or, although being individual, its social impacts must be also considered, but when assessing ED through a systemic lens, in which it is assumed that one's ED always affects its partner, it becomes of much relevance to understand its effects on the couple.

The couple is a much important sub-system of the family, not only is the foundation for most family systems and its nucleus (Waite, 2005), but it is also the leading line of the family's journey and well-being (Alarcão, 2000). Therefore, quality and satisfaction of the relationship are the basis for much of normal and adjusted family functions (Crespo, 2007); for instance, it will directly affect the parenting, which will produce its own impact on the children's development (Balfour et al., 2018).

Relationship Quality (RQ) is a quite elusive concept, but Fletcher et al. (2000) propose that its main dimensions are: commitment, closeness/intimacy, trust, satisfaction, love, and passion. Nevertheless, it has been proven that it causes many impacts on the mental and physical well-being (Hassebrauck & Fehr, 2002; Randall & Bodenmann, 2009) and it is greatly correlating to the happiness of the couple (Randall & Bodenmann, 2009). RQ is especially important considering that half of its dimensions - commitment, satisfaction, and love - are predictors for the relationship's termination (Le et al. 2010). ED, which can affect the couple, can also be coped with and, completing a circle, it has been proven that the romantic relationship can be a major factor in treating depression (Balfour et al., 2018). Coping restores the well-being and reduces distress (Falconier et al., 2016). In the couple, coping can happen by two ways: either based on the "we" sense or individually, by one of them first attempting to cope and reduce their own stress, in order to prevent stress spill over to their partner (Falconier et al., 2016).

Dyadic Coping and its effect on Relationship Quality

In 1995, Bodenmann noticed the lack of coping models at specifically the couple level that accounts for the interdependence between the elements of the couple. And so, the Systemic Transactional Model (STM) was conceptualized by Bodenmann (1995), based on Lazarus transactional stress approach and the systemic theory by Bertalanffy. The STM emphasizes that our partners' experience of distress, how they deal with it and their well-being will affect us, and vice versa. This happens because this model assumes that there is an interdependence between partners, particularly romantic, in which they lean on one another to deal with all life domains. The experience of stress, and therefore coping, is a social process stemming from close relationships (Falconier et al., 2016). In lay terms, what afflicts my partner will directly or indirectly affect me, but more importantly, the resources available to my partner to deal with their/our affliction, will also be my resources to deal with said affliction (Falconier et al., 2016).

Different from Lazarus' transactional stress approach, the STM adds the other's perspective into consideration. Similar to the Lazarus's approach in the previous section, the STM also has a primary and secondary appraisal but with the partner's factor. In the primary appraisal, in addition to what Lazarus proposed, we also appraise each other's appraisal and if they appraised our appraisal, resulting in a we-appraisal (Falconier et al., 2016). For the secondary, adding to Lazarus second appraisal and continuing the momentum, after evaluating one's own resources, we appraise the other's resources to deal with the event and compare both ours and theirs resources in a final we-appraisal of conjoined resources (Falconier et al., 2016). After all this appraising, we are left with the individual goals (similar to Lazarus' model), but also joint goals which, in turn, will translate on coping, not only on an individualistic level but also at the relationship level, also known as Dyadic Coping (DC) (Falconier et al., 2016).

Bodenmann et al. (2006) define Dyadic Coping as “a process (...) in which the coping reactions of one partner take into account the stress signals of the other partner” (p. 485). Bodenmann et al. (2019) clarify that when two individuals (in a romantic partnership) share the same stress, it will allow for them to also cope together, by either supporting each other with their own coping efforts or by joining their focus in problem-solving or regulation of emotions. The way it unfolds in the couple, can be defined by two outcomes of how the stress is handled, a positive and a negative, where coping together is superficial, ambivalent and even hostile (Bodenmann et al., 2019). As such, a distinction between types of DC can be made. Firstly, the experience of distress must be expressed, not necessarily verbally, aimed for the partner to receive an implicit or explicit request for help in dealing with, and thus the dimension of Stress Communication (SC). How this message is perceived and the request for help is replied, there will stem Positive DC or Negative DC (Falconier et al., 2016). For Positive DC, the partner understands the message and request for help and can respond in a way that satisfyingly fulfils it. They can help by focusing on the emotion regulation, which in turn will be Emotion-focused (EF) supportive DC, for example guided breathing to calm down. They can provide a more practical way to solve the partner's problem, which will be Problem-focused (PF) supportive DC, for instance, give solutions and new perspectives on a situation. Moreover, the partner can still help ease their significant other by taking up tasks for them which will be Delegated DC, doing the dishes even if it is the partner's usual task (Falconier et al., 2016). In Negative DC, however, the partner maybe didn't understand the message or request for help, or maybe, by some other factors (e.g., isn't available, personality traits and even aspects of culture), cannot really meet the needs

and expectations of their partner leading to some hostile, ambivalent or superficial DC (Falconier et al., 2016).

These dimensions, Stress Communication, Emotion-focused supportive, Problem-focused supportive, Delegated and Negative can all be viewed as partner-oriented coping, meaning the individual coping, though with dyadic goals, directed from me to my partner or from my partner to me, as in Self-oriented (this is, how I communicate my stress and how I act about my partner's stress) or Partner – oriented (this is, how they communicate their stress and how they act towards my stress) (Falconier et al., 2016). There is still the Common DC, which is couple-oriented, and is more prevalent when the stressor factor is external (Falconier et al., 2016). It creates a sense of “We”: no longer two individuals but a united front against this stressor. Common DC can also be Emotion-focused Common DC or Problem-focused Common DC.

Nevertheless, the STM isn't the only conceptualization of DC available, however, it's the genesis of the Dyadic Coping Inventory (DCI). Falconier et al. (2015) conclude that is the most comprehensive instrument available to study DC and its dimensions, whilst being the most widespread, translated to over dozens different languages, with usage in over as many countries, as well in the instrument selected for the present study.

DC has shown to be affected by multiple sociodemographic factors. Specific to Portugal, there has been an influence by gender (more positive DC performed by women, and more negative DC by men), level of education (higher levels of education related to more positive DC, and low education levels to negative DC), the presence of children (less DC in families with children) and their ages (more negative DC in children of small ages, 0 to 6 years old) (Falconier et al., 2016; Vedes, 2013). Bodenmann et al. (2011) found that dyadic coping is a predictor for the RQ, explaining almost 50% of the variance in which the more positive DC the more RQ, and being the higher predictor comparing to other coping strategies (Bodenmann, 2008b). Bodenmann et al. (2006) also associate DC to more resilience towards depression (ED symptom) and can aid in avoiding the dissolution of the relationship.

The Present Study

As gathered by the literature review, the purpose for this study is to observe the impact of COVID-19, by means of ED symptoms (stress, anxiety, and depression), on the relationship quality among couples, and the DC's intervention to lessen said impact. Thus,

to study these three variables, a mediation model will be tested. Moreover, since it has been established that there are variables (gender, having children and their ages, and level of education) that influence DC (Falconier et al., 2016; Vedes, 2013), these will be also factored in completing the model adding the moderation of these variables to the way DC and ED correlate.

Consequently, a more integrated model can be achieved by means of a moderation of mediation model based on the concepts explained (see Figure 2). As such, the following hypothesis have been formulated.

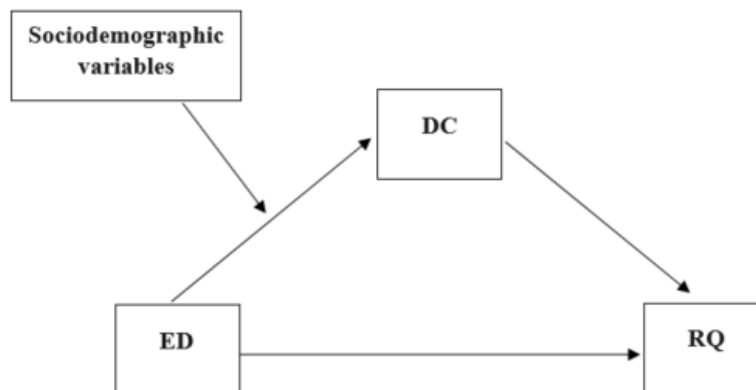
H1: The emotional distress, and each symptom (depression, anxiety and stress), reported by the sample will be significantly above normal levels.

H2: The sociodemographic variables gender, having children and their ages, and level of education, have influence on how emotional distress and dyadic coping interact.

H3: The interaction between emotional distress and the quality of relationship is mediated by dyadic coping, besides, there are sociodemographic moderator variables (gender, having children and their ages, or level of education) between the emotional distress and the dyadic coping that will alter its mediating effect (see Figure 2).

Figure 2

Diagram of the Moderated Mediation Model



METHODOLOGY

Participants

The sample was comprised of an $N = 581$ participants from the Portuguese population, 15.6% were men and 84.4% women, with a mean age of 39.7 years ($SD = 10.7$) ranging from 18 to 73 years old.

All these individuals are in a committed relationship, most of these, 52% ($n = 301$) were married, 31.4% were in a non-marital partnership leaving 16.6% to people who were dating, yet still in a committed relationship. In relation to children, 56.7% ($n = 331$) had children, of these 35.1% had children below the age of six, 21.6% had children between six and twelve, 11.9% had teenage children between twelve and eighteen and, lastly, 31.4% had adult children over eighteen years old. The people in each couple knew their partner for about a mean of 18.1 years ($SD = 37.5$), for which of those about 15.4 years average ($SD = 25.6$) were in a committed relationship; for the married couples, these had a mean of 7.9 years of marriage ($SD = 29.6$). Additionally, 95.5% of the sample reported as being heterosexual and the majority 80.5% had a higher education degree. These results are detailed in Table 1 for categorical variables and Table 2 for numerical.

Table 1
Sociodemographic Description of the Sample – Categorical variables

Variables	<i>n</i>	%
Gender		
Male	90	15.6
Female	488	84.4
Sexual Orientation		
Heterosexual	553	95.5
Other	26	4.5
Relationship Status		
Dating	96	16.6
Non-marital Partnership	182	31.4
Married	301	52.0
Presence and Age of Children		
Couple – no children	250	43.3
Ages 0 to 6	115	19.9
Ages 6 to 12	71	12.3

Ages 12 to 18	39	6.7
Age over 18	103	17.8
Education Level		
4th year	2	0.3
6th year	8	1.4
9th year	17	2.9
12th year	86	14.9
Higher Education	466	80.5

Note. N = 581 for the sample, however some variables had missing information, therefore their N will be inferior.

Table 2

Sociodemographic Description of the Sample – Numerical variables

Variables	<i>M</i>	<i>SD</i>
Age	39.7	10.7
Relationship Length		
How long they knew their partner	18.1	37.5
How long in committed relationship	15.4	25.6
How long married	7.9	29.6
Number of Children	0.9	1.0

Note. N = 581 for the sample, however some variables had missing information, therefore their N will be inferior.

Measures

As mentioned in the Procedure, the protocol was much vast than the one used for the purpose of this study, the original had many more sociodemographic variables as the previous stated such as profession, eight COVID-19 related questions and six instruments in its whole. The instruments relevant for this study were the Depression, Anxiety and Stress Scales (21 items) (DASS-21) by Lovibond and Lovibond (1995), adapted to the Portuguese population by Apóstolo, Mendes and Rodrigues (2007); the Perceived Relationship Quality Component Inventory (PRQC) by Fletcher, Simpson and Thomas (2000), adapted by Crespo (2007); and the Dyadic Coping Inventory (DCI) by Bodenmann (2008a), validated to Portuguese population by Vedes, Nussbeck, Bodenmann, Lind and Ferreira (2013).

Sociodemographic Questionnaire

The sociodemographic questionnaire, developed by the international coordinating team for the study mentioned, inquired individuals about their gender identity (referenced

throughout the study only by gender), sexual orientation, age, level of education, relationship status, if they are married and for how long, how long they knew their partner, and length of the committed relationship, if they had children and their ages.

Depression, Anxiety and Stress Scales (DASS-21; Lovibond & Lovibond, 1995; Apóstolo et al., 2007)

The original DASS was comprised of 42 items, however, a shorter 21 item version was available (Lovibond & Lovibond, 1995). This is the instrument selected to measure the independent variable ED with the score of all the scales combined for it has great strength and is useful to distinguish between normal and pathological levels. It's an instrument of self-report designed to measure the negative emotional states of, as the name suggests, its three scales, depression, anxiety, and stress. In its short version, each scale has 7 items, and the answer is given minding the frequency of the state prompted ranging between 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time), to obtain each scale score the 7 corresponding items must be summed. To achieve a total score the three scales can be either summed or averaged. The authors made available a table regarding decision making for pathological levels, based on the results, which state the cut-off points between the labels "normal", "mild", "moderate", "severe" and "extremely severe", with specific values that differ from each scale and total.

The Portuguese version, adapted and validated to the Portuguese population by Apóstolo et al. (2007), maintains the 21 items divided into the same three scales. Similar to the original version, each scale has 7 items that must be summed to obtain the score. For the Depression scale the items are 3, 5, 10, 13, 16, 17 and 21; for the Anxiety Scale the items are 2, 4, 7, 9, 15, 19 and 20; and for the Stress Scale the items are 1, 6, 8, 11, 12, 14 and 18. As a whole, this instrument had a Cronbach's alpha of .93 in their original study, with alphas for the respective scales of .87, .79 and .90. In this study, the alpha for the Depression scale was .91, the Anxiety scale .88, the Stress scale .93 and, as a whole, the instrument produced a total alpha of .96.

Perceived Relationship Quality Component Inventory (PRQC; Fletcher et al., 2000; Crespo, 2007)

This was the instrument selected to measure the RQ of participants. It has six dimensions: Satisfaction, Commitment, Intimacy, Trust, Passion and Love, each with three

items (18 in total) and answered in a 7-point Likert scale, where 1 means “not at all” and 7 means “extremely”. It is a very important tool as it is brief and reliable (original study presented Cronbach’s alphas over .80) and can be adapted from 18 to a shorter version of six items, one for each dimension, since they are purposively redundant, leaving only the items 1, 4, 7, 10, 13 and 16.

Thusly, those were the six items, summed to obtain the total score, used in the protocol, in its short version, adapted from the Portuguese version by Crespo (2007) which determined that the reliability is maintained after translation, with a total Cronbach’s alpha of .96 and in this study of .93.

Dyadic Coping Inventory (DCI; Bodenmann, 2008a; Vedes et al., 2013)

This inventory was developed by Bodenmann (2008a) to measure the dimensions conceptualized by the STM. As the STM, this instrument has nine subscales, eight for assessing the individual coping and one for the joint coping. The dimensions are Stress Communication, Supportive DC, Delegated DC, and Negative DC for either self-evaluation or partner-evaluation, and Common DC as a common effort. Both Supportive DC and Common DC can be divided into Emotion-focused DC or Problem-focused DC. The inventory has 37 items and is measured in a 5-point Likert scale from 1 “very rarely” to 5 “very often”. The first 35 items measure these nine subscales, and the last two items evaluate how satisfiable is their DC, although these aren’t included in the calculations for the total score, being obtained by averaging those 35 items. Lastly, the items 7, 10, 11, 15, 22, 25, 26 and 27 should be reversed for the final score calculations.

In its Portuguese version (Vedes et al., 2013), the DCI functions very similarly to the original, obtaining good to excellent Cronbach’s alphas in all its dimensions, the lowest alpha was .63 and the highest .97, but they warn significant gender differences. In this study, the total alpha was of .93, and in each dimension: Stress Communication by self .70; Stress Communication by partner .78; Supportive DC by self .83; Supportive DC by partner .90; Negative DC by self .71; Negative DC by partner .80; Delegated DC by self .65; Delegated DC by partner .79; and Common DC .89.

Procedure

It is of the utmost importance to refer to the international study from which this research is based on. Ashley Randall, in the Arizona State University, started a transcultural

study of the impact the stress caused by the COVID-19 pandemic had on romantic relationships, which over 27 countries adhered. Hence, they developed a protocol that was spread across all collaborating countries and universities. In Portugal led by Ana Paula Relvas (University of Coimbra), this protocol was adapted to the Portuguese population, soliciting the authorization to use the Portuguese versions of the instruments selected. Although the protocol was much extensive, the present study observed only the answers to the instruments relevant to the objectives at focus. This study uses only the Portuguese data that the transcultural research collected, to thoroughly understand the results as a whole and not as a comparison to other countries.

The protocol was disseminated online by means of social media and in institutional pages (CES-UC, FPCE-UC, OPP), between March and May and was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences. The protocol was comprised by an informed consent, which had all the relevant information about the study, the inclusion criteria followed by the instruments. To participate in this study individuals had to be over 18 years old, living in Portugal, be part of a committed relationship for at least a year, and cohabitating.

Analytic Strategy

Firstly, the reliability analysis was performed for each instrument by means of Cronbach's alphas to assess the internal consistency. Secondly, it should be noted the size of the sample that is being manipulated. As so, based on the Central Limit Theorem (Boston University School of Public Health, 2016), the normality of the distribution is assumed. Descriptive statistics were performed to describe the sample. Both the DCI and PRQC scores for hypothesis testing were used in its total score, however, DASS was firstly used in its different dimensions for hypothesis one, and then as a total score to better represent ED in the next hypotheses.

Hence, for the first hypothesis, to assess levels for each scale, one population t-tests were used, comparing each scale mean to each top value stipulated for the normal levels in those scales (Lovibond & Lovibond, 1995). However, for the total score evaluation, Lovibond and Lovibond (1995) advise to undergo a more specific procedure to analyse and make qualitative decisions. Thus, Lovibond and Lovibond (1995) command that each scale score should be turned to a z-score, average these three to obtain the joint score, and then

compare it to the specific label levels for the total score (normal, mild, moderate, severe and extremely severe) in their manual, as to qualitatively assess ED.

The second hypothesis tests the effects that a sociodemographic variable has on the DASS and DCI instruments and their dimensions. Variables with two categories, were evaluated using a t-test for two independent populations; variables with more than two categories by means of one-way ANOVAs, followed (if significant) by multiple comparisons to determine which groups differ. Additionally, various moderation interactions were calculated, reporting only those which have significant correlations, to determine which sociodemographic variable to be integrated in the final model.

Lastly, for the third hypothesis, resorting to the macro PROCESS in its 3.5 version (Hayes, 2018), using the model 7, a moderated mediation, the model requested in the third hypothesis was calculated, following the Baron and Kenny method (1986) to assess full or partial mediation.

Every test was performed with 95% level of confidence, using the software SPSS Statistics by IBM Corp. (2017), in its 25.0 version.

RESULTS

Emotional Distress Levels

The first hypothesis intended to prove that the ED, and each component (depression, anxiety and stress), reported by the sample would be significantly above normal levels, which was not confirmed.

Testing the hypothesis meant comparing the mean score in each scale with the top value that Lovibond and Lovibond (1995) established for normal levels, multiple one-sample t-tests were performed (see Table 3). Above normal values for the Depression score should be higher than 4, $t(561)=-3.469$, $p=.001$, however when observing the mean in the Table 3, it is below, which means the mean score for this scale is significantly within normal values. The same occurs in the other scales. In the Anxiety scale, normal values are between 0 and 3, $t(561)=-2.903$, $p=.004$, $M = 2.56$ ($SD = 3.57$); and for the Stress scale normal values are between 0 and 7, $t(561)=-3.903$, $p<.001$, $M = 6.19$ ($SD = 4.92$), both within its respective normal intervals. When performing the procedure planned to assess ED, resorting to z-scores to evaluate the total score, $M = .00$ ($SD = .89$), is also within normal levels (below 0.5), $t(561)=-13.200$, $p<.001$. These tests show that the scores of the sample, either in each scale, either globally, are significantly within normal values

Table 3

T-test of the first hypothesis

	Level ^b	t-test	<i>p</i>	<i>M</i>	<i>SD</i>
DASS total score ^a	0.5	$t(561)=-13.200$	<.001	0.00	0.89
Depression	4	$t(561)=-3.469$	.001	3.39	4.16
Anxiety	3	$t(561)=-2.903$	.004	2.56	3.57
Stress	7	$t(561)=-3.903$	<.001	6.19	4.92

Note. One population t-test compare the populations mean to a fixed level; significant results in bold.

^a Use of z-score for assessing total score.

^b Top level for normality, levels retrieved from the DASS Manual (Lovibond & Lovibond, 1995).

Social Demographic Variables as Moderators

The second hypothesis proposed that the sociodemographic variables gender, having children and their ages, and level of education have influence, as expected by literature, on how ED and DC interact.

Even though the first hypothesis was infirmed, the data was divided by groups to evaluate its effects. Initially, it was thought to distinguish 3 groups, by the most common method of subtracting or adding one standard deviation to the mean, however, due to the first group only having answers that were 0, this method doesn't work because the score wouldn't have any variation to test for. Hence, there were only two groups using the division point of the mean plus one standard deviation: Group 1 had normal levels of DASS scores, and Group 2 had above normal levels. Group 2 includes answers that correspond to the labels ranging from mild to extremely severe ED (Lovibond & Lovibond, 1995), averaging the group to the moderate label. Using only the total score of three scales to represent ED, Table 4 presents the descriptive statistics of the newly formed groups.

Table 4

Descriptive statistics of DASS groups

	N	M	SD	M z-score	SD z-score
Group 1	489	8.71	6.55	-0.27	0.50
Group 2	73	35.12	10.06	1.82	0.83

Note. Division point for grouping was the mean plus one standard deviation, both pertaining to the total score, which adds to 23.51.

For the second hypothesis, initial direct correlations and comparison of means (see Table 5), followed by testing of interactions (moderating effect) were performed and organized in Table 6. As observed, age correlates positively with both ED groups ($r=.104$ and $r=.320$), and negatively with DC ($r=-.156$), although weakly ($r < .400$, which would be a moderate strength correlation), which translates to the direction the older a person is, the more ED they feel but also, the less DC to cope with.

Relationship status (dating, non-marital partnership and married) shows significant results in the group 2 and DC. Performing multiple comparisons, for the group 2 there is one significant difference between non-marital partnership and married, (mean difference $M = 6.294$, $p=.023$) which indicates that non-marital partnership suffer from the highest levels of ED; for the DC, the significant difference is between the dating and married couples, (mean difference $M = 0.205$, $p=.015$) pointing that married couples have the lowest scores for DC.

The DC also varies significantly whether there are children or not, thusly if there are no children, higher levels of DC were observed; DC correlates negatively, even though very

weakly, with the number of children ($r = -.188$) and all relationship lengths (see Table 5). These results show, for the first, that the more children a couple has the lower DC, and, for the latter, the longer the individual has known their partner, began the relationship and is married, the lower DC.

Testing specifically if each sociodemographic variable has a moderating effect between the ED groups and the DC (see Table 6), there are variables that cannot be used as mediators since their n became too small when dividing the DASS response in two groups, which exclude the Sexual Orientation and Education Level.

Focusing on the significant values, there are only two, gender ($\beta_3 = -.024$, $p = .033$) and length of marriage ($\beta_3 < .001$, $p = .037$), which are very weak moderation interactions. As gender has been further studied and proven as a moderator for DC, moreover the moderator that encompasses more elements of the sample (only 51.8% of the sample was married), became the chosen moderator included in the calculations for the third hypothesis (see Figure 3).

Table 5*Direct associations between sociodemographic variables and group 1 and 2 of DASS and DCI total score*

Variables	Group 1 DASS					Group 2 DASS					DCI				
	N	M	SD	test	p	N	M	SD	test	p	N	M	SD	test	p
Age	-	-	-	$r=0.104$	.022	-	-	-	$r=0.320$	.006	-	-	-	$r=-0.156$	<.001
Gender				$t(485)=0.118$	.906				$t(70)=0.796$	.429				$t(544)=0.819$	.413
Male	76	8.80	6.84			12	37.33	7.49			82	3.83	0.53		
Female	411	8.71	6.51			60	34.78	10.56			464	3.78	0.63		
Sexual Orientation				$t(486)=0.787$	.432				$t(70)=0.716$	.477				$t(545)=0.171$	.864
Heterosexual	466	8.76	6.58			71	35.31	10.14			524	3.78	0.62		
Other	22	7.64	5.91			1	28.00	-			23	3.76	0.51		
Relationship Status				$F(2,485)=0.232$	.792				$F(2,69)=4.942$	.010				$F(2,544)=3.868$	.021
Dating	91	8.81	6.55			4	27.75	3.10			93	3.93	0.60		
NMP	145	8.40	6.32			34	38.79	9.91			174	3.78	0.59		
Married	252	8.85	6.71			34	32.50	9.65			280	3.73	0.64		
Children's Age				$F(2,485)=0.232$	.792				$F(4,67)=0.713$	.586				$F(4,542)=7.907$	<.001^b
Couple	250	43.3				34	36.44	10.60			238	3.93	0.53		
0 to 6	115	19.9				15	33.00	6.57			110	3.68	0.73		
6 to 12	71	12.3				8	31.25	11.30			65	3.79	0.60		
12 to 18	39	6.7				3	35.00	9.54			37	3.61	0.55		
Over 18	103	17.8				12	37.17	11.97			97	3.57	0.63		
Education Level				$F(4,483)=0.839$	.501				$F(3,68)=0.343$	.794				$F(4,542)=0.642$	.633
4th year	2	9.00	12.73			0	-	-			2	3.61	0.51		
6th year	7	11.00	5.26			1	38.00	-			6	3.65	1.21		

9th year	13	9.92	5.26			3	30.00	4.00			13	3.55	0.35		
12th year	77	7.68	6.91			7	36.86	6.94			82	3.82	0.58		
Higher	389	8.83	6.50			61	35.23	10.67			444	3.78	0.62		
Children ^a				<i>t</i> (485)=-0.509	.611				<i>t</i> (70)=0.979	.331				<i>t</i> (545)=5.100	<.001
Yes	276	8.83	6.74			38	34.11	9.66			309	3.66	0.65		
No	211	8.52	6.31			34	36.44	10.60			238	3.93	0.53		
Number of Children	-	-	-	<i>r</i> =-0.036	.424	-	-	-	<i>r</i> =-0.074	.535	-	-	-	<i>r</i> =-0.188	<.001
Relationship Length															
Known	-	-	-	<i>r</i> =0.020	.665	-	-	-	<i>r</i> =0.094	.433	-	-	-	<i>r</i> =-0.154	<.001
Committed	-	-	-	<i>r</i> =0.054	.236	-	-	-	<i>r</i> =-0.022	.853	-	-	-	<i>r</i> =-0.151	<.001
Married	-	-	-	<i>r</i> =0.068	.133	-	-	-	<i>r</i> =-0.071	.553	-	-	-	<i>r</i> =-0.145	.001

Note. Significant results ($p < .050$) in bold for easier appraisal.

^a This variable analysed independently to focus on the presence of children rather than their ages by the FLCP.

^b Only group that differs significantly in multiple comparisons is the couple versus the other groups, therefore, refer to the variable that is marked with ^a.

Table 6

Test for moderating effect of sociodemographic variables in the relation between DASS and DCI total score

Variables	Moderation			
	Group 1 DASS		Group 2 DASS	
	β_3^a	<i>p</i>	β_3^a	<i>p</i>
Age	<0.001	.939	<0.001	.224
Gender	-0.024	.033	-0.010	.688
Sexual Orientation	-0.029	.263	-	-
Relationship Status ^b				
	-0.007	.560	0.018	.877
	0.010	.390	-0.002	.986
Children's Age ^b				
	-0.011	.338	0.022	.478
	-0.009	.478	0.019	.386
	0.030	.058	-0.047	.297
	0.004	.738	0.019	.288
Education Level ^b				
	-0.044	.509	-	-
	0.054	.971	-	-
	0.040	.401	-	-
	0.029	.542	-	-
Children	<0.001	.972	0.010	.473
Number of Children	<0.001	.099	0.002	.731
Relationship Length				
Known	<0.001	.254	<0.001	.194
Committed	<0.001	.101	<0.001	.980
Married	<0.001	.037	<0.001	.620

Note. Significant results ($p < .050$) in bold for easier appraisal; if there aren't any results shown, then $N \leq 1$ in that specific subgroup, which will invalidate the whole variable as a moderator.

^a A full moderation model is not supposed to be conceptualized, only if the variable is a mediator, by β_3 , which is the interaction, being significantly different than 0.

^b When a variable is multicategorical, PROCESS automatically splits it in the dummy variables necessary, thusly more interactions are given and tested to differ from 0.

Moderated Mediation Model

The third hypothesis tested that the interaction between ED and the RQ is mediated by DC, while gender has a moderation effect between the ED and DC that will alter its overall mediating effect.

Inputting the data for the model 7 (Hayes, 2018) in the macro PROCESS, the final model (see Figure 3) is obtained. To analyse this model, the components moderation and mediation have to be considered separately at first, and then together on the completed model.

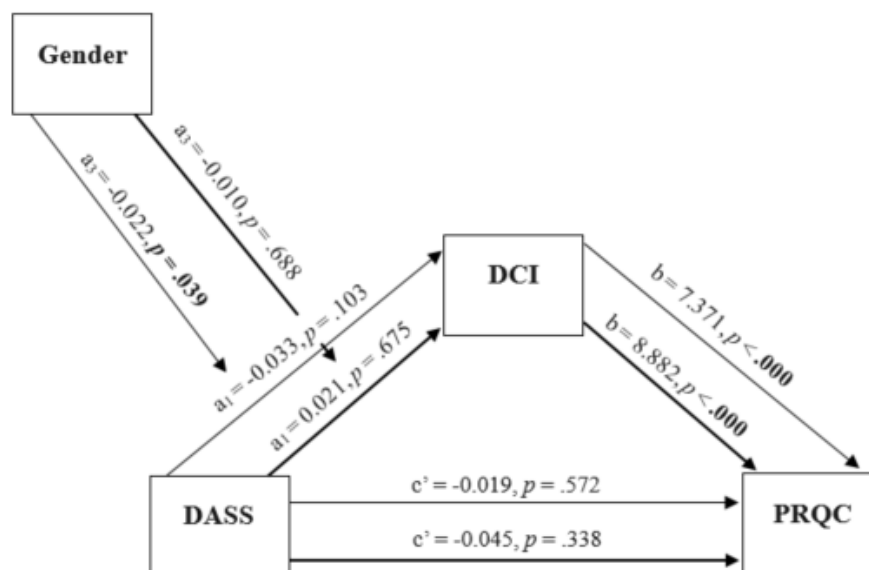
Firstly, focusing on the moderation component of the model. For group 1, the moderation portion produces a significant R^2 -change = .009, $p = .039$, which directs to the conditional effects of each gender category (see Table 7). Observing these results, it shows a negative association between the DC and ED for women. In other words, DC decrease with the increasing of ED scores in women's subgroup. Even though there is a significant change in the women's category in the first group, it should be noted that this is still very weak, the R^2 linear produced by these results indicate that only 20% of the variation is explained by these variables (see Table 7). No significant results for men.

In the second group, the above normal levels of ED, has R^2 -change = .003, $p = .688$, no significant association between DC and ED independently of gender (see Table 7), therefore, gender doesn't moderate this interaction.

Furthermore, for the mediation portion, direct associations show that there are only significant regressions between DC and RQ. For the overall model, Table 9 shows the index for the total model and the indirect effects of gender split into two categories: men and women. Because of group 2's smaller n , bootstrap inference was performed, to confirm the significance of the values obtained.

As mentioned in the methodology chapter, following the method and conclusions of Baron and Kenny (1986), no mediation (full or partial) can be found because the ED scores don't directly interact with either the DC or RQ; only the DC directly correlates significantly with RQ for both groups (see Figure 3). In Table 8, however, there is a significant indirect effect for women in group 1, that carries from the moderation to the final model, which indicates that for the women of the group that had normal scores, the higher the ED the less effective DC would be. This result, albeit significant, is still of very weak effect.

Figure 3
Results in Moderated Mediation Model



Note. Bolder lines representing the data from Group 2, the higher levels in DASS scores.

Table 7
 R^2 -change, Conditional Effects and R^2 linear dividing the moderator variable gender in its categories provided by PROCESS

Moderator Gender	R^2 -change	Effect	p	R^2 linear
Group 1	0.009	-	0.039	-
men	-	0.011	0.278	0.019
women	-	-0.012	0.009	0.020
Group 2	0.003	-	0.688	-
men	-	-	-	-
women	-	-	-	-

Note. Significant results ($p < .050$) shown in bold for easier appraisal.

Table 8
Index for moderated mediation model and Indirect Effects dividing the moderator variable gender in its categories provided by PROCESS with Bootstrap inference

Moderator Gender	Index	Effect	BootSE	BootLLCI	BootULCI
Group 1	-0.165	-	0.076	-0.316	-0.017
men	-	0.079	0.067	-0.049	0.213
women	-	-0.086	0.034	-0.155	-0.021
Group 2	-0.092	-	0.260	-0.372	0.596
men	-	0.094	0.250	-0.602	0.330
women	-	0.002	0.074	-0.147	0.140

Note. Significant results ($0 \notin]\text{BootLLCI}, \text{BootULCI}[$) shown in bold for easier appraisal.

DISCUSSION

This study aimed to evaluate how DC buffered, by mediation, the impact of ED, generated by the COVID-19 pandemic on Portuguese couples, by measuring their RQ, while assessing the sociodemographic factors that have proven to influence the performance of DC. To reach this goal, the three hypotheses were construed and tested which the interpretation follows.

For the first hypothesis, it was expected that participants would exhibit ED values higher than normal, as a whole and by its components. This was proven wrong, as the results show that the scores obtained for both total and individual scales were within what the authors deemed as normal values (Lovibond & Lovibond, 1995). Since the base for which DC operates is by buffering the impacts of distress, and these weren't of concerning levels, it was discussed and decided to split the results in groups to differentiate normal from above normal scores, to further tighten the scope on above normal levels of ED. After this division, two groups were established: group 1 had within normal levels of ED and group 2 had above normal ED levels, averaging at the moderate label but ranging from mild to extremely severe (Lovibond & Lovibond, 1995) (see Table 4).

In general, the participants didn't exhibit concerning levels of ED. Even when dividing the group to differentiate concerning from normal levels, the mean for the latter was moderate ED. Although a positive result for the population, it begs the question as to why ED levels weren't as high as expected in the Portuguese population facing the COVID-19 pandemic. More ED was anticipated considering the history of disease and the well-being of people (Douglas et al., 2009), and with increased ED being also observed in some studies (Randall et al., 2021) regarding other countries. Recent studies have found similar results: Daly and Robinson (2021) conducted a longitudinal study that concluded that, although a spike emerged in the ED of their sample, it regressed to normal levels shortly after, conjecturing it could be the effects of coping and resilience building. So did Shanahan et al. (2020), who found that health risks weren't a factor for ED but rather the change in their routine (also other secondary consequences such as the economic crisis), additionally, approximately one fifth of their sample reported feeling better during the COVID-19 pandemic. Shanahan et al. (2020) also determined some of the exceptions: being female, migrants, and higher levels of ED pre-disaster; and some factors for reduced ED: coping strategies, exercising, positive reframing of events, and effort to maintain a regular routine (within the limitations imposed by lockdown). Other factors found for higher levels of ED included being part of medical staff (Man et al., 2020) and concurrent natural disasters such

as an earthquake (Margetić et al., 2021). Shanahan et al. (2020) conjecture that these results can be attributed to people positively appraising lockdown as a way to calm and reorganize their life: the brief pause from work/school expectations and the better management of what was assessed as “free time” (used to better social relationships and self-care by increasing sleep and enjoying hobbies). Pedrosa et al. (2020) also list other speculations that can have a positive effect on ED: trusting the government and following its information and instructions, as well as resources offered, help by means of online methods, and individual coping strategies. Specifically for Portugal, Relvas et al. (2020) found these low levels of ED, however, when comparing to the ED levels from pre-pandemic, there was a slight increase, which can mean that the data for this study could have been collected too early for the Portuguese population to develop higher levels of ED symptoms.

Regarding the second hypothesis, all sociodemographic variables were tested as moderators between the ED and DC. The results show very few moderators, with very low moderation power and only for group 1 (normal ED levels). However, gender was chosen and integrated as a mediator, since it has been more studied and proven as a moderator for DC, moreover the variable that encompassed more participants, it was the chosen moderator to be included in the calculations for the third hypothesis. In testing gender as a moderator, it was found that for women with normal ED levels, more ED meant lower levels of DC, which is the main result most DC studies seem to conclude, which must be reminded that DC is a concept originally created based on normal day-to-day stress (Bodenmann, 1995; Bodenmann, 2008b; Falconier et al., 2015; Falconier et al., 2016).

Other significant results that should be mentioned from the statistics performed for this second hypothesis are: the person’s age, positively correlating with ED scores, which Pedrosa et al. (2020) mentioned, means that the older a person is the more ED they will feel, however it correlates negatively with DC, as such, the older a person is the less DC; the relationship status correlated with higher ED levels in non-marital relationships which is the type of relationship associated with low-resource families (Leite, 2003) and is an expected correlation (Burkova et al., 2021); the length of the relationship correlated negatively with DC, meaning, the longer the relationship is, the less DC is used by its elements, which is contrary to what the literature observes (Falconier et al., 2015); if the couple doesn’t have children it can mean more DC, according to the data, and it is an expected result (Falconier et al., 2016); lastly, the number of children correlated negatively with DC, which isn’t a variable much studied but points to this same direction of correlation (Johnson et al., 2016) that the more children in the family, the less DC present in the couple.

For the final hypothesis, the moderated mediation model was tested, performing the model for both ED groups, reminding that group 1 had the normal levels for ED and group 2 had above normal levels. Firstly, since there wasn't a direct association between ED and RQ, nor a direct effect by mediation of DC, by most definitions, the model can't be successful. However, with the input of gender's moderation, a significant indirect effect in group 1 occurs. Reminding the findings of hypothesis two, there was a weak association that meant that in women with normal levels of ED, the more ED felt, the lower DC scores. Therefore, translating to the final model's indirect affect, for these women, the perceived RQ also lowers by the reduced DC brought by higher levels of ED.

The meaningful results were expected to be observed in the Group 2 model, for their ED scores were of higher magnitude (see Table 4), had the pandemic implications and because it represented the main purpose of the hypothesis. Considering that there were no effects, the conclusion can be made of infirming the third hypothesis. These results come as a surprise when taking into account the literature: not only it has been researched thoroughly that distress, whether social, psychological, or emotional affects people and their relationships, but DC has been well established as a mediator between distress and the quality and satisfaction of relationships, as well as the sociodemographic moderators being more influential (Falconier et al., 2016). Indeed, the relationship between DC and RQ was still shown as being significant (see Figure 4) which points the issue to the ED levels, and the lack of significant association to RQ, moreover, gender also loses its influence, which can mean that for high levels of ED, the person's gender is irrelevant. This finding comes contrary to what the literature surrounding DC has established, gender being a proven influencer of its performance (Bodenmann, 2008b; Falconier et al., 2015; Falconier et al., 2016). COVID-19 is a novel, untapped, source of knowledge for psychology and understanding couples through distressful events. It can be taken by this study that the majority of the participants kept some normality to their relationship even considering the situation, and in which these concepts operated as expected. However, when observing the narrow window available to the participants with above normal ED levels, it provides an unexpected picture: that perhaps these concepts don't apply as literature establishes when facing these extreme situations, except for DC, which the results show it significantly associates with the RQ, cementing this concept as a key tool for all couples (Bodenmann, 2008b; Randall & Bodenmann, 2009; Bodenmann et al., 2011). Although undoubtedly a major and external stressor, it can also be speculated whether COVID-19 is an acute or chronic stress, which can have very different impacts on the couple (Randall & Bodenmann,

2009). Chronic, continued stress exposure may have more damaging and long-lasting impacts on the RQ than acute stress which, by being limited in time, is less demanding for the couple (Randall & Bodenmann, 2009). This distinction can also help understand this study's results, perhaps when the data was collected, in the first wave (March to May of 2020), couples could have appraised COVID-19 as an acute stress, therefore, less worrying. However, being an active concern still by the time this document is being written (October 2021), a year and a half later, with much scientific debate if this disease will be eradicated or become endemic, it can be argued if this event would later be appraised by couples as more of chronic stressor with its true impacts on RQ revealing themselves much later than when this data was assessed.

LIMITATIONS

The main limitations for this study were that the sample, although diverse, still wasn't inclusive to perform calculations about individuals of lower education and resources. Moreover, the dissemination methodology used by means of online links, approximately 78.3% of Portuguese habitants had internet access at the time (PORDATA, 2020), which casts aside a part of the population to be studied. Additionally, it also doesn't permit for inferences about same-sex couples. Another important limitation was the inability to measure reliably the ED levels pertaining to pre-pandemic and pre-confinement as a baseline to compare. A section of the protocol of open-ended questions to allow a qualitative lens on the reasons the people provide for lower ED could have been extremely useful. Lastly, it must be mentioned that all the instruments used, rely on self-report which can be subjective.

CONCLUSIONS

Although this study ultimately didn't prove the hypothesis proposed and added to the scientific community as intended, it shows an interesting and unexpected picture of a sample of Portuguese population and couples when facing adversity, which wasn't the only study with surprising results of these lowered levels of the emotional repercussions of the COVID-19 pandemic.

It is of the utmost interest and importance to focus on the reason this, and other recent papers, found this dampening in emotional distress contrasting to the historic human experience when facing worldwide disasters.

More studies in the future should be made, specifically of a qualitative nature, keeping in mind why the reaction might not be as dire as expected from previous crisis and studies. Moreover, since the data pertains to March and April of 2020, if this subtle first reaction, contrasting with other studies (Daly & Robinson, 2021; Shanahan et al., 2020) that observed a spike and then the decline of ED, is specific to the Portuguese population, to determine what factors (cultural or action of the government) make it so, for this knowledge can be of great value to other cultures in preparing for upcoming pandemics. It can be of great interest to longitudinally research the emotional distress accompanying all waves of the COVID-19 and other pandemics.

Furthermore, the data collected for this study can fuel more in-depth analysis separating the different dimensions of DC, for instance, comparing the association between Positive DC or Negative DC on ED levels; and the different scales of the DASS instrument, assessing if some ED symptom is exhibited more than the others.

To finalize, this study didn't further demonstrate the DC's buffering effect on RQ by the ED generated by the COVID-19 pandemic but detected instead, the fascinating deviation from what was expected and is one of the few that can propel future research focused on the resilience manifested in face of adversity. For practice implications, the strong correlation between DC and RQ further demonstrates the need for couples to cultivate their DC (Bodenmann, 2008b), but also that DC has yet to be thoroughly studied in these extreme ED situations.

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