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Nádia Cristiana da Costa Fernandes

**ROMANTIC ATTACHMENT AND DYADIC
COPING: THE MEDIATING ROLE OF
(RELATIONSHIP) MINDFULNESS**

Dissertação no âmbito do Mestrado em Intervenções
Cognitivo-Comportamentais da Psicologia Clínica e da Saúde orientada pelo
Professor Doutor Marco Daniel de Almeida Pereira e apresentada à
Faculdade de Psicologia e de Ciências da Educação.

Junho de 2022

Faculdade de Psicologia e de Ciências da Educação
da Universidade de Coimbra

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DECLARATIONS

Statement of integrity

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration.

Institutional framework

The present dissertation was developed within the strategic project of the Center for Research in Neuropsychology and Cognitive-Behavioral Intervention (CINEICC) (UIDB/00730/2020).

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RESUMO

O coping diádico, que tem sido associado à vinculação, tem demonstrado desempenhar um papel importante no bem-estar individual e relacional, porém, investigação acerca de mecanismos individuais e/ou interpessoais que o facilitem parece ser escassa. O objetivo deste estudo foi compreender se a associação entre as orientações de vinculação romântica e o coping diádico é mediada pelo *mindfulness* (individual ou relacional). A amostra foi composta por 500 participantes (85,6% do sexo feminino; média de idade = 29.69 anos), num relacionamento amoroso, em média, há cerca de sete anos. Os participantes foram recrutados da população geral e preencheram questionários de autorresposta avaliando a vinculação romântica (Experiences in Close Relationships – Relationship Structures), o *mindfulness* (Mindful Attention and Awareness Scale), o *mindfulness* relacional (Relationship Mindfulness Measure) e o coping diádico (Dyadic Coping Inventory). Os resultados obtidos demonstraram que a ansiedade e o evitamento relacionados com a vinculação estavam negativamente associados ao coping diádico (pelo próprio, pelo parceiro e conjunto) e ao *mindfulness*; e que o *mindfulness* não só estava positivamente associado ao coping diádico, como também mediou parcialmente a associação entre as orientações de vinculação romântica e as dimensões do coping diádico (do próprio, do parceiro e conjunto). Estes resultados sugerem que intervenções focadas em estratégias que promovam o envolvimento em formas positivas de coping diádico, como as baseadas no *mindfulness* no âmbito relacional, podem ajudar a diminuir os efeitos negativos de uma vinculação insegura.

Palavras-chave: vinculação romântica, orientações de vinculação, coping diádico, *mindfulness*, *mindfulness* relacional

ABSTRACT

Dyadic coping, which has been associated with attachment, has been shown to play an important role in individual and relational well-being, but investigation exploring intrapersonal and/or interpersonal mechanisms that facilitate it seems to be lacking. The aim of this study was to understand if the association between romantic attachment orientations and dyadic coping is mediated by (individual or relationship) mindfulness. The sample consisted of 500 participants (85.6% female; mean age = 29.69 years), who were in a romantic relationship, on average for seven years. Participants were recruited from the community and completed self-report questionnaires assessing romantic attachment (Experiences in Close Relationships – Relationship Structures), mindfulness (Mindful Attention and Awareness Scale), relationship mindfulness (Relationship Mindfulness Measure) and dyadic coping (Dyadic Coping Inventory). Our findings showed that attachment-related anxiety and avoidance were negatively associated with dyadic coping (by the self, by the partner, and common) and mindfulness; and that mindfulness not only was positively associated with dyadic coping but also partly mediated the association between romantic attachment orientations and dyadic coping dimensions (self, partner, and common). Our results suggest that interventions focusing on strategies that promote the engagement in positive forms of dyadic coping, such as mindfulness-based in a relational scope, may help hinder negative effects of attachment insecurity.

Keywords: romantic attachment, attachment orientations, dyadic coping, mindfulness, relationship mindfulness

TABLE OF CONTENTS

RESUMO.....	4
ABSTRACT	5
INTRODUCTION	7
Attachment to Romantic Partners	7
Dyadic Coping	7
Mindfulness and Relationship Mindfulness	9
METHOD	11
Participants.....	11
Measures.....	12
Sociodemographic Data	12
Romantic Attachment	12
Dyadic Coping.....	13
Mindfulness.....	13
Relationship Mindfulness.....	14
Procedures.....	14
Data Analysis.....	14
RESULTS	16
Descriptive Statistics and Correlations.....	16
Mediation Analysis.....	17
DISCUSSION.....	20
REFERENCES.....	24

INTRODUCTION

Attachment to Romantic Partners

Individuals, as social beings, depend on the establishment of interpersonal relationships both for their development and well-being. Attachment theory explains that, early in life, individuals exhibit certain behaviours to attract a person who provides them with care, comfort, and security (Ainsworth et al., 1978). Based on these early interactions, people develop mental representations of themselves and others, creating working models that influence how they perceive and react to others in close relationships (Bowlby, 1973), including later in adulthood with romantic partners.

Adult attachment to romantic partners (or romantic attachment) can be understood along two dimensions: anxiety and avoidance (Hazan & Shaver, 1987). By definition, according to Mikulincer and Shaver (2003), attachment-related anxiety is associated with fear of rejection, betrayal or abandonment, and, in times of need, anxious individuals often use “hyperactivation” strategies that help them fulfil their desire of proximity to their partners and of security in the relationship. In contrast, attachment-related avoidance relates to the discomfort with emotional intimacy and closeness, prompting individuals to engage in “deactivation” strategies, which allow them a sense of autonomy from their partners. In this sense, while an individual with low levels of both anxiety and avoidance displays a secure attachment style, one with insecure attachment will score high on either one of or in both dimensions (Griffin & Bartholomew, 1994).

This conceptualization of romantic attachment not only helps to explain the different ways individuals seek support in intimate relationships, but it also showcases the bias on how individuals prefer to receive it and how they might interpret the support enacted by others (McLeod et al., 2019). Therefore, it is important to consider attachment orientations to better understand interactions established by individuals in intimate relationships, either in the normal course of life as well as when facing stressful situations.

Dyadic Coping

Dyadic coping (DC) is an interpersonal process that starts when an individual, within a couple (or an intimate relationship), emits stress signals regarding events outside the relationship, and comprises the appraisal of and the reaction to these signals by their partner (Bodenmann et al., 2017). DC takes into account the reciprocal influences existing within a relationship and thus, it can

be understood as an interdependent process in which an external stressor affects, directly or indirectly, both partners (Falconier & Kuhn, 2019).

Since the 1990s, several DC models have addressed stress in couples adopting this view, but it has been proposed that these models can be integrated because they seem to share the same fundamental principles (Falconier & Kuhn, 2019). Specifically, and among those, it is established that partners can employ individual or conjoint coping efforts, to help each other deal with stress or to handle it together, respectively; and that DC can be positive or negative, particularly when involving hostile, ambivalent or superficial behaviours (Bodenmann, 2008; Falconier & Kuhn, 2019).

Extensive research has shown that positive individual health (both physical and mental, and overall quality of life), as well as better relationship functioning (e.g., in terms of quality, satisfaction, growth and stability) are outcomes associated with positive forms of DC (Staff et al., 2017). On the other hand, negative forms of DC have shown to negatively impact individuals, for example, in terms of their mental health and relationship satisfaction (Staff et al., 2017). Its clinical relevance also extends to the finding that positive DC benefits individual and relational well-being when partners need to cope with stress (Falconier et al., 2015; Falconier & Kuhn, 2019).

There is ample evidence in literature indicating that stress activates the attachment system and thus the working models (i.e., the mental representations of the self and others) influence how individuals respond to events and what strategies they might use. In this context, individuals with insecure attachment are more likely to provide support inadequately and to interpret the one enacted in a negative manner (McLeod et al., 2019). As such, it may come as no surprise that, for instance, higher levels of attachment-related anxiety and avoidance contribute negatively to relationship satisfaction (Candel & Turliuc, 2019; Quickert & MacDonald, 2020). Similarly, the engagement in coping strategies, particularly in forms of DC, may be influenced by the working models and by attachment orientations (anxiety and/or avoidance), ultimately leading to negative outcomes, both intrapersonal and interpersonal.

The link between romantic attachment orientations and DC has previously been established, across various contexts (e.g., married couples, transition to parenthood, HIV-serodiscordant couples) and, amongst these studies, results that were found were similar and indicated that the association with attachment-related avoidance seemed to be stronger than the association with anxiety, despite both being significant (Alves et al., 2019; Fuenfhausen & Cashwell, 2013; Iuga & Candel, 2020; Lafontaine et al., 2019; Martins et al., 2022). Moreover, one study found that DC had a mediating effect between attachment-related avoidance and relationship satisfaction (Iuga & Candel, 2020), in line with the understanding that, when coping with stressors, individuals with attachment-related avoidance will distance themselves from their partner and refrain from engaging in DC, ultimately

leading to dissatisfaction. On the other hand, the link with attachment-related anxiety seemed to be more ambiguous, perhaps because anxiously attached individuals fluctuate between conflicting tendencies, for example, engaging in proximity seeking behaviours while still doubting about their partner's availability for them (Candel & Turliuc, 2019; Iuga & Candel, 2020).

Despite the important role that DC has displayed to have in well-being, both at the individual and relational levels, there seems to be a lack of investigation exploring strategies that might facilitate the engagement in DC. Presumably, mindfulness could be such a strategy.

Mindfulness and Relationship Mindfulness

Mindfulness can be defined as a state of enhanced attention and awareness to the present moment and its practice has shown to have a number of benefits, including helping individuals cope with stress and anxiety (Brown & Ryan, 2003). For instance, through basic processes such as emotion regulation, executive control, closeness to others and awareness of automatic responses, mindfulness can help shape patterns of behaviour and communication (Karremans et al., 2017). In this sense, and according to these authors, mindfulness can also be understood as an interpersonal phenomenon. Indeed, mindfulness has been associated with improvements in relationship functioning within intimate relationships (Karremans et al., 2017). Moreover, recent evidence also demonstrated that the psychological well-being of an individual may be positively impacted by their partner's relationship mindfulness (Kimmes et al., 2019).

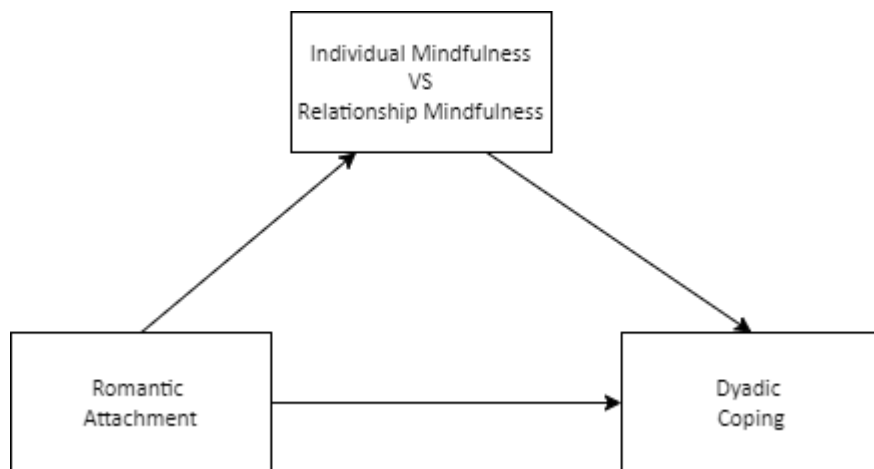
The concept of relationship mindfulness emerged in the context of romantic relationships and describes the tendency to be mindful of the thoughts and feelings that may affect the couple (Kimmes et al., 2017). According to these authors, the romantic context is more specific because it comes with its own challenges, including the experience of stronger emotions as well as the activation of attachment issues. Such issues, namely "hyperactivation" (in attachment-related anxiety) and "deactivation" (in attachment-related avoidance), find their counterparts as two antagonistic aspects of mindfulness (grasping and aversion, respectively; Kimmes et al., 2017). Thus, unsurprisingly, attachment insecurity has been associated with lower levels of individual mindfulness (Quickert & MacDonald, 2020). Furthermore, an individual with attachment insecurity might struggle to be mindful in their romantic relationship even if they have a tendency to be mindful in other contexts. This indicates that relationship mindfulness might better explain the variance found in romantic relationship outcomes than (individual) mindfulness itself, despite the latter also being inversely related to attachment insecurity (Kimmes et al., 2017).

Regardless of it being individual or relationship-specific, mindfulness may be a potentially useful strategy that may help individuals with attachment insecurity (i.e., high in attachment-related anxiety and/or avoidance) engage in relationship-promoting behaviours, such as DC.

The main goal of this study was to examine if mindfulness mediated the association between romantic attachment orientations and DC. Furthermore, it also aimed to explore if there was a difference between the role of individual mindfulness and relationship-specific mindfulness in this mediation (see hypothesis depicted in Figure 1). To our knowledge, no previous studies have examined the potential mediating role of mindfulness between these study variables. Based on the reviewed literature, and despite the scarcity of studies on this topic, we hypothesised that mindfulness could be a strategy that facilitates engagement in DC particularly among individuals with more insecure attachment orientations (i.e., individuals with high scores in anxiety and avoidance), and most likely in those characterised by high levels of attachment-related avoidance.

Figure 1

Hypothesised Multiple Mediation Model for the Relationship Between Romantic Attachment Insecurity (i.e., High Anxiety and/or Avoidance) and DC.



METHOD

Participants

The sample of this study included individuals from the general community, aged 18 years or above, and who were in a romantic relationship (regardless of its nature) at the time of the data collection. The sample derived from a larger research project approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra. In total, the study sample consisted of 500 individuals (85.6% identifying as female), with an average of 29.69 years ($SD = 10.26$; ranging from 18 years to 68 years). Most participants (55.6%) reported being in a romantic relationship but not living together, and the average relationship length was 6.99 years ($SD = 8.12$). The majority of participants had completed higher education (77.8%), were employed (57.6%), lived in an urban area (70.6%), and had had no experience nor training in mindfulness (69%). The detailed characteristics are presented in Table 1.

Table 1

Sociodemographic Characteristics of Participants (N = 500)

Baseline characteristic	<i>n</i>	%
Gender		
Female	428	85.6
Male	70	14
Other	2	0.4
Marital status		
In a relationship (without living together)	278	55.6
Cohabiting	123	24.6
Married	99	19.8
Educational level		
Basic school (from 4th up to 9th grade)	16	3.2
High school (12th grade)	95	19
University or postgraduate degree	389	77.8

Baseline characteristic	<i>n</i>	%
Employment status		
Employed	288	57.6
Student	167	33.4
Unemployed	41	8.2
Retired	4	0.8
Residence		
Urban	353	70.6
Rural	147	29.4
Experience/training in Mindfulness		
Yes	155	31
No	345	69

Measures

Sociodemographic Data

Sociodemographic information was assessed with a self-reported questionnaire developed by the researchers and included data regarding gender, age, marital status, relationship length, education, employment status, occupation, and urban/rural area of residence. Previous training or experience with mindfulness was also inquired.

Romantic Attachment

The Experiences in Close Relationships – Relationship Structures questionnaire (ECR-RS; Fraley et al., 2011; Portuguese version by Moreira et al., 2015) was used to assess romantic attachment. The ECR-RS is a 9-item self-report instrument that measures attachment-related anxiety (three items; e.g., “I often worry that this person doesn't really care for me”) and attachment-related avoidance (six items; e.g., “I often worry that this person doesn't really care for me”) in different kinds of close relationships, using a 7-point response scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*). Higher scores indicate higher attachment-related anxiety or avoidance. In the original study (Fraley et al., 2011), the ECR-RS showed acceptable convergent and discriminant validity and, for romantic relationships, optimal reliability (Cronbach’s α of .87 and .91 for avoidance

and anxiety, respectively). The Portuguese version (Moreira et al., 2015), in the romantic domain, also showed adequate reliability (Cronbach's α of .72 and .91 for avoidance and anxiety, respectively), as well as construct validity. In the present study, Cronbach's α was also optimal, both for avoidance ($\alpha = .83$) and anxiety ($\alpha = .85$).

Dyadic Coping

The Dyadic Coping Inventory (DCI; Bodenmann, 2008; Portuguese version by Vedes et al., 2013) is a 37-item instrument that measures different DC dimensions, using a 5-point response scale (1 = *Very Rarely*; 5 = *Very Often*). It comprises nine subscales, one relating to the behaviour displayed by both partners mutually (Common DC; e.g., "We try to cope with the problem together and search for ascertained solutions") and the rest depicting behaviours shown either by the individual (self) or by their partner (Delegated DC, Negative DC, Supportive DC and Stress Communication). It also includes an evaluation of the self-perceived quality of DC (items 36 and 37), which is not accounted for in the total score. The dimension of self provides information of an individual's perception of their own DC (self-perception), while the partner dimension conveys the DC about their partner (i.e., perception of partner's DC); the common dimension comprehends an individual's perception of their (and their partner's) conjoint efforts (Bodenmann et al., 2018). For the purpose of this study, total scores for common DC and composite scores of DC by the self and DC by the partner were used. Both the original (Bodenmann et al., 2018) and the Portuguese (Vedes et al., 2013) versions of the DCI have shown good psychometric properties, with adequate to optimal internal consistency for the subscales (Cronbach's α ranging between .71 and .92 in the original, and between .70 and .97 in the Portuguese version) as well as convergent and criterion validity. In this study, Cronbach's α ranged between .67 (for Stress Communication by self) and .93 (for Supportive DC by partner).

Mindfulness

The Mindful Attention and Awareness Scale (MAAS; Brown & Ryan, 2003; Portuguese version by Gregório & Pinto-Gouveia, 2013) is an instrument designed to measure mindfulness, specifically a present-centred attention–awareness dispositional trait, using 15 items (e.g., "I find myself doing things without paying attention") answered on a 6-point Likert scale (1 = *Almost Always* to 6 = *Almost Never*). Higher scores denote higher mindfulness. The Portuguese version of the MAAS (Gregório & Pinto-Gouveia, 2013), in line with the findings for the original version, showed good psychometric validity and reliability ($\alpha = .90$). Internal consistency of the MAAS, in the sample of this study, was also optimal ($\alpha = .90$).

Relationship Mindfulness

The Relationship Mindfulness Measure (RMM; Kimmes et al., 2017; Portuguese version by Pereira & Francisco, 2021) evaluates relationship mindfulness, according to five items (e.g., “When I’m with my partner, I find myself saying or doing things without paying attention”) rated on a 6-point scale, ranging from 1 (*Almost Always*) to 6 (*Almost Never*). Higher scores indicate greater levels of mindfulness within a romantic relationship. In the original version, supporting evidence has been found for internal consistency, test-retest reliability as well as concurrent, predictive, and incremental validity (Kimmes et al., 2017). Validation studies for the Portuguese version are currently under development but preliminary results indicated a Cronbach’s α of .82, supporting convergent and concurrent validity and showing that the RMM was significantly correlated, in the expected direction, with measures of trait mindfulness, relationship outcomes and psychopathology (Pereira & Francisco, 2021). Similarly, in the present study, Cronbach’s α showed an adequate value ($\alpha = .82$).

Procedures

For the data collection, participants were asked to fill out a set of self-report questionnaires, which were hosted on the online survey platform LimeSurvey® (www.limesurvey.org), and advertised through social media, namely Facebook® and Instagram®, as well as email contacts. Before answering the study protocol, on an introductory page, participants were informed about the study objectives, the inclusion criteria, the anonymity and confidentiality of their responses, the voluntary nature of participation as well as the contacts of the responsible researchers. Participants were then asked to give their informed consent (by clicking in the option “yes”) before proceeding. It should be noted that additional questionnaires were also included in the survey, however, as these were not used to answer the research questions in this particular project, they are not discussed any further. Completion of the set of questionnaires took approximately 30 minutes. No financial compensation was provided.

Data Analysis

All statistical analyses were computed using IBM SPSS (IBM SPSS Statistics for Windows, Version 25.0, Armonk, NY), considering a minimum confidence interval of 95%. Descriptive statistics were performed for sociodemographic characterization. Internal consistency of the measures was estimated using Cronbach’s α and classified accordingly as adequate ($\geq .70$) or optimal ($\geq .80$)

(Nunnally & Bernstein, 1994). Pearson's correlation coefficients were determined to assess the associations between study variables and classified as weak ($\pm .10 - \pm .29$), moderate ($\pm .30 - \pm .49$) or strong ($\pm .50 - \pm 1.0$) (Cohen, 1988). The hypothesised mediation models were tested using model four of PROCESS macro for IBM SPSS (Hayes, 2013), a computational tool that allows an examination based on bootstrapping procedures (i.e., 5000 bootstrap samples). In total, 24 mediation models were computed, with and without covariates. Since the results followed similar patterns, albeit not always to the level of significance, for the purpose of this article, we report models including the covariates. The association between independent and dependent variables, in the presence of but without a mediator in this analysis, is considered a direct effect, while an indirect effect takes mediating variables into account in the association to help explain variance in the outcome (dependent variable). A significant indirect effect (i.e., one where the confidence interval does not include zero) represents a significant mediation model. For significant models, total effect sizes were interpreted as small (≥ 0.02), medium (≥ 0.13) or large (≥ 0.26), in accordance with the values of R^2 (Cohen, 1992).

RESULTS

Descriptive Statistics and Correlations

Descriptive statistics and correlations for study variables are summarised in Tables 2 and 3. Romantic attachment orientations, mindfulness (individual and relationship) and dyadic coping (self, partner and common dimensions) were all significantly correlated with each other (see Table 2). Attachment anxiety and avoidance were both negatively correlated with mindfulness (individual and relationship) and DC (self, partner and common). In particular, anxiety showed to be weakly associated with all those variables except for a moderate correlation with DC by the partner ($r = -.30$, $p < .01$). On the contrary, attachment-related avoidance was only weakly associated with individual mindfulness, moderately correlated with relationship mindfulness ($r = -.46$, $p < .01$), and strongly correlated with DC (self: $r = -.56$; partner and common: $r = -.64$; $p < .01$). In addition, individual mindfulness was weakly associated with common and DC by the self, while relationship mindfulness showed a moderate correlation with DC by the self ($r = -.46$; $p < .01$) and a strong one with common DC ($r = -.50$; $p < .01$). Moreover, both individual and relationship mindfulness were moderately correlated with DC partner ($r = -.30$ and $.47$, respectively; $p < .01$).

Table 2

Descriptive Statistics and Correlations for Romantic Attachment, Mindfulness and DC measures

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Attachment anxiety	3.12	1.65	–						
2. Attachment avoidance	1.75	0.94	.22***	–					
3. Individual mindfulness	62.36	12.97	-.25***	-.27***	–				
4. Relationship mindfulness	23.84	4.69	-.18***	-.46***	.54***	–			
5. DC by the self	4.06	0.50	-.14***	-.56***	.26***	.46***	–		
6. DC by the partner	3.81	0.72	-.30***	-.64***	.30***	.47***	.70***	–	
7. Common DC	3.80	0.97	-.18***	-.64***	.27***	.50***	.70***	.83***	–

Note. DC = Dyadic Coping. $N = 500$. *** $p < .001$.

Correlations with sociodemographic data (see Table 3) showed that age was negatively and significantly correlated with DC dimensions (moderate association through all dimensions assessed), and relationship mindfulness (weak association). Gender showed significant albeit weak associations

with mindfulness experience and individual mindfulness (both negative correlations), and DC by the self (positive correlation). Marital status, i.e., if the couple was living separately or together (married or cohabiting), was significantly and positively associated with common DC and DC by the partner (moderate association), and with DC by the self and relationship mindfulness (weak association). Relationship length was negatively and weakly correlated with relationship mindfulness and DC (self, partner and common). Considering these results, and the relational context of this study, marital status and relationship length were included in the mediation models as covariates. Gender was also included as covariate in mediation models with DC by the self since these showed a significant and positively correlation (weak association). Given the strong correlation between age and relationship length (.77), only relationship length was as included as covariate.

Table 3
Correlations for Sociodemographic Data, Mindfulness and DC

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	–									
2. Gender	-.10*	–								
3. Marital status	-.60***	.04	–							
4. Relationship length	.77***	-.07	-.57***	–						
5. Mindfulness experience	.04	-.10*	-.03	.06	–					
6. Individual mindfulness	-.01	-.12**	.03	.02	.11*	–				
7. Relationship mindfulness	-.21***	.00	.23***	-.20***	.08	.54***	–			
8. DC by the self	-.30***	.13**	.29***	-.24***	-.06	.26***	.46***	–		
9. DC by the partner	-.32***	-.03	.30***	-.24***	-.01	.30***	.47***	.70***	–	
10. Common DC	-.35***	.00	.32***	-.28***	-.05	.27***	.50***	.70***	.83***	–

Note. DC = Dyadic Coping. $N = 500$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Mediation Analysis

To test the study hypothesis, romantic attachment orientations (i.e., anxiety and avoidance) were considered independent variables; self, partner and common dimensions of DC were regarded as outcomes; and individual and relationship mindfulness were entered (separately) as mediators. Relationship length and marital status were included in the analysis as covariates, as well as gender in mediation models with DC self. A summary of results of the mediation models can be found on Table 4. Both attachment anxiety and avoidance showed a significant and negative direct effect on all DC outcomes (self, partner and common). After introducing individual mindfulness, results

indicated that there were significant indirect effects and that individual mindfulness partly mediated the association between romantic attachment orientations and DC dimensions, in all mediation models tested. The same was true when using relationship mindfulness as a mediator. The models predicting DC with attachment anxiety via mindfulness (both individual and relationship) were determined to have a medium effect size, while models with attachment avoidance showed a large effect size.

Table 4*Summary of Multiple Mediation Analyses*

Mediator	Independent Variable	Dependent Variable	(a)		(b)		Direct effect (c')			Indirect effect (a*b)			Total effect (c)		
			<i>B</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>R</i> ²	<i>b</i>	boot SE	(LLCI; ULCI)	<i>b</i>	SE	<i>R</i> ²
Individual Mindfulness	Anxiety	Self	-1.92***	.34	.01***	.002	-.04**	.01	.19	-.02	.01	-0.03; -0.01	-.06***	.01	.14
		Partner	-1.99***	.34	.01***	.002	-.12***	.02	.25	-.03	.01	-0.04; -0.01	-.14***	.02	.20
		Common	-1.99***	.34	.02***	.003	-.09***	.02	.22	-.03	.01	-0.05; -0.02	-.13***	.02	.17
	Avoidance	Self	-3.90***	.61	.01***	.001	-.26***	.02	.38	-.02	.01	-0.04; -0.01	-.28***	.02	.36
		Partner	-3.91***	.61	.01***	.002	-.43***	.03	.45	-.03	.01	-0.05; -0.01	-.46***	.03	.43
		Common	-3.91***	.61	.01***	.003	-.58***	.04	.47	-.03	.01	-0.06; -0.01	-.61***	.04	.46
Relationship Mindfulness	Anxiety	Self	-0.59***	.12	.04***	.004	-.03**	.01	.27	-.03	.01	-0.04; -0.01	-.06***	.01	.14
		Partner	-0.59***	.12	.06***	.01	-.11***	.02	.32	-.03	.01	-0.05; -0.02	-.14***	.02	.20
		Common	-0.59***	.12	.09***	.01	-.08***	.02	.32	-.05	.01	-0.08; -0.03	-.13***	.02	.17
	Avoidance	Self	-2.12***	.20	.03***	.004	-.23***	.02	.40	-.05	.01	-0.08; -0.03	-.28***	.02	.36
		Partner	-2.12***	.20	.03***	.01	-.39***	.03	.47	-.07	.02	-0.10; -0.04	-.46***	.03	.43
		Common	-2.12***	.20	.05***	.01	-.51***	.04	.50	-.10	.02	-0.15; -0.06	-.61***	.04	.46

Note. Marital status and relationship length were included as covariates in all mediation models. Gender was also included as a covariate in analysis with DC self as the dependent variable. (a) Effect of the independent variable in the mediator. (b) Effect of the mediator in the dependent variable.

p* < .01. *p* < .001.

DISCUSSION

In the present study, we hypothesised that mindfulness (both individual and relationship-specific) could be a strategy that facilitates engagement in dyadic coping, mainly among individuals with insecure attachment (i.e., higher scores on attachment-related anxiety and/or avoidance). We also hypothesised that this would be more likely in individuals with increased levels of attachment avoidance. Our main findings demonstrate that attachment-related anxiety and avoidance are both negatively associated with dyadic coping (by the self, by the partner, and common) and mindfulness; mindfulness is positively associated with dyadic coping; and that mindfulness partly mediates the association between romantic attachment orientations and DC dimensions.

Replicating past literature, attachment insecurity was associated with poorer engagement in DC (Iuga & Candel, 2020), i.e., in overall poorer perceptions of an individual's own DC (DC by self), of their partner's DC (DC by partner) and of their conjoint DC efforts (common DC). Specifically, our findings indicate that individuals with higher attachment-related anxiety have poorer perceptions of their partner's DC (DC by partner). This could be explained by their typical use of "hyperactivation" strategies, which promote cognitive processing congruent with the experienced negative affect (Mikulincer et al., 2003) and that, consequently, makes them more likely to retain negative views of their partner and interpret the DC enacted by the partner in a negative manner. Similarly, the engagement in "deactivation" strategies might help explain the results for individuals with higher attachment-related avoidance which, unsurprisingly, were shown to be significantly associated with negative perceptions of DC in all three dimensions (by the self, by the partner, and common). The tendency that avoidant individuals exhibit might underline a lower investment in a romantic relationship to help them maintain a sense of autonomy and prevent closeness and intimacy with their partner (Mikulincer et al., 2003). Despite the significant associations between both attachment orientations and DC, as hypothesised, the effect size seemed to be stronger for attachment-related avoidance across all DC dimensions assessed. This pattern of results has also emerged in previous research, throughout different contexts, even when featuring other DC dimensions assessed by the same measure (Alves et al., 2019; Fuenfhausen & Cashwell, 2013; Iuga & Candel, 2020; Lafontaine et al., 2019; Martins et al., 2022).

Our results also show that attachment insecurity is negatively associated with mindfulness, both individual and relationship-specific. In particular, higher levels of avoidance were significantly and moderately related to lower levels of relationship mindfulness, in line with the theoretical assumptions that "deactivation" strategies might prevent these individuals from paying attention to

and being aware of their own and their partner's thoughts and feelings that ultimately can affect the couple (Mikulincer et al., 2003).

On the other hand, as expected, mindfulness was positively linked with DC. This association was stronger for relationship mindfulness, which was moderately associated with greater perception of DC enacted both by the self and by the partner, and strongly related to higher perception of the conjoint efforts employed. Such results keep with the theory that the romantic context is more specific and that relationship mindfulness may better explain the variance found in the outcomes (Kimmes et al., 2017). Interestingly though, individual mindfulness was also moderately associated with an increased perception of partner's engagement in DC, which denotes how a present-centred attention–awareness dispositional trait may also benefit interpersonal processes (Karremans et al., 2017).

Supporting our study hypothesis, our results demonstrate that both attachment anxiety and avoidance are associated with lower perceptions of DC through a direct effect and also indirectly through mindfulness (individual and relation-specific). This finding suggests that mindfulness may be a mechanism explaining partly the association between attachment insecurity and DC. Despite the mediation effects of individual and relationship mindfulness being similar, the effect size was larger when attachment avoidance was the independent variable in the model (versus a medium effect with attachment anxiety), further supporting our hypothesis. These results are understandable, because when coping with stressors, individuals with higher attachment avoidance are more likely to distance themselves from their partner and more likely to be less mindful, particularly concerning relationship issues, ultimately leading to poorer engagement in DC. Individuals with attachment anxiety, on the other hand, while still being less mindful, might fluctuate between conflicting tendencies, either undertaking proximity-seeking behaviours and trying to engage in DC, or avoiding intimacy due to the fear of rejection, and refraining from being involved in DC.

This study represents an advancement in the literature of DC, by incorporating a theoretical framework that combined the attachment model (Hazan & Shaver, 1987) with mindfulness, both at an individual and at relationship-level (Kimmes et al., 2017). Evidence that mindfulness is a strategy related to the association between attachment insecurity and DC, highlights its potential as a target for intervention with couples dealing with stressful events outside the relationship. Thus, promoting enhanced attention and awareness to the present moment, and reducing bias and judgement, might help individuals with attachment insecurity to better regulate their emotions, and engage more in positive forms of DC when facing daily hassles as well as significant stressors. From a therapeutic standpoint, by promoting mindfulness in the context of intimate relationships, therapists can help hinder repercussions of attachment insecurity. Since both attachment theory and dyadic coping

models underscore the interdependent and dynamic nature of romantic relationships, in future research, it would also be interesting to investigate for whom mindfulness may benefit relationship functioning, considering the effects on one or both partners. Additionally, since our results revealed only a partial mediation, it is highly likely that there may be other constructs, both intrapersonal and interpersonal, involved in the association between romantic attachment orientations and DC. For instance, Lafontaine et al. (2019) found romantic perfectionism to have a mediating effect in this association, highlighting how holding unrealistic expectations for a romantic partner can be linked with poorer self-perception of DC. Quickert and MacDonald (2020), in turn, found a mediating role of mindfulness and rumination together between attachment insecurity and negative conflict behaviours (specifically conflict styles). Likewise, processes pertaining to communication styles and conflict resolution may also be relevant in forthcoming analysis of what other mechanisms might partly explain the relationship between attachment orientations and engagement in dyadic coping.

Despite its contributions, there are some limitations to acknowledge in this study. Firstly, its cross-sectional design does not allow for any causal inferences to be made and thus, since there can be a bidirectional association between variables, results may not accurately portray the proposed mediation. Future longitudinal studies are needed to determine the direction of association over time. Secondly, a risk of self-selection bias has to be considered since participants were assessed through an online survey. Moreover, the sample consisted mostly of female participants and thus, it would be important that future research could account for gender differences, by increasing the number of male participants. Our sample was also skewed in terms of age, including mainly young adults. Thirdly, the accuracy of responses might be affected by social desirability, especially considering the context of intimate relationships. While the use of self-report questionnaires might add to this effect, the online nature of the survey and its inherent confidentiality might hinder it.

Another possible limitation is related to the assessment of only one of the partners within the dyad. It is suggested however that the enrolment of only one individual could be appropriate given the prevailing use of dyadic samples (Totenhagen et al., 2022) and the findings that couples who agree to participate together may have different relationship dynamics (Park et al., 2021). In particular, it was found that higher levels of attachment security were associated with a greater likelihood of enrolling as a dyad (Barton et al., 2020), and it has also been proposed that individuals with high attachment-related avoidance may be less likely to agree to participate in dyadic studies with their partners due to their discomfort with emotional intimacy and closeness (Park et al., 2021). Furthermore, in consideration of our research questions, focussing on attachment issues and their association with the interpersonal and relational process that is dyadic coping, single partner data collection may have allowed for greater variability (both regarding the relationship and individual

levels) and less researcher-selection effects (Barton et al., 2020; Park et al., 2021). However, it would still be interesting to explore the use of comparative samples (individuals participating with and without their partners) in future research as well as to consider how different attachment orientations interact with one another, how that impacts DC outcomes and what role mindfulness might play in it.

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