

ORIGINAL ARTICLE

Attachment, emotion regulation, and well-being in couples: Intrapersonal and interpersonal associations

Tânia Brandão^{1,2}  | Marisa Matias^{2,3}  | Tiago Ferreira^{2,3}  | Joana Vieira² | Marc S. Schulz⁴ | Paula Mena Matos^{2,3} 

¹CIP, Departamento de Psicologia, Universidade Autónoma de Lisboa Luís de Camões, Lisboa, Portugal

²Center for Psychology at University of Porto, Porto, Portugal

³Faculty of Psychology and Education Sciences, University of Porto, Porto, Portugal

⁴Department of Psychology, Bryn Mawr College, Bryn Mawr, Pennsylvania

Correspondence

Paula Mena Matos, Faculdade de Psicologia e de Ciências da Educação da Universidade do Porto, Rua Alfredo Allen 4200-135 Porto, Portugal.
Email: pmmatos@fpce.up.pt

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Abstract

Objective: There is a well-established link in the literature between secure romantic attachment orientation and psychological well-being. The underlying processes of this link and the couple interplay between attachment and well-being are notably less explored. Using a dyadic framework, this study examines both couple members' emotion regulation strategies as potential mediators of this link.

Method: One hundred and nineteen heterosexual couples completed self-report measures on attachment style, psychological well-being, tendency to suppress emotions, and emotion expression. Analyses were performed using the actor-partner interdependence mediation model that distinguishes between intrapersonal and interpersonal influences.

Results: Results showed that controlling for relationship length, there was an intrapersonal indirect effect of attachment avoidance on psychological well-being through emotion suppression. Moreover, interpersonal indirect effects were found (a) with individual attachment avoidance being associated with partner's psychological well-being through own emotion expression and (b) individual's attachment anxiety being associated with partner's psychological well-being through both own's emotion expression and partner's emotion suppression.

Conclusions: These findings highlight the complex associations among attachment, emotion regulation, and well-being and point out the role of emotion regulation as a potential underlying pathway explaining these associations. The results suggest the importance of considering the relational nature of emotional and attachment dynamics in couples.

KEYWORDS

attachment, dyadic analysis, emotion regulation, psychological well-being

1 | INTRODUCTION

Emotionally secure relationships provide a solid foundation for individuals' health and psychological well-being (Lopez

& Brennan, 2000; Mikulincer & Shaver, 2016). Extensive evidence shows that secure attachment is associated with better psychological well-being, more positive affect, greater marital satisfaction, more positive mood, and fewer depressive

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symptoms (e.g., Karreman & Vingerhoets, 2012; Lopez, Mitchell, & Gormley, 2002; Torquati & Raffaelli, 2004). On the contrary, attachment insecurity is associated with lower psychological well-being, more depressive symptoms, more psychological distress, and poorer mental health overall (Kafetsios & Sideridis, 2006; Wei, Heppner, & Mallinckrodt, 2003; Wei, Shaffer, Young, & Zakalik, 2005). Attachment does not only affect one's own experience. It has also been linked to the experience of relationship partners. For example, individuals attachment insecurity is associated with their partners' poor outcomes (e.g., poor marital satisfaction) (Givertz, Woszidlo, Segrin, & Knutson, 2013; Kane et al., 2007; Molero, Shaver, Ferrer, Cuadrado, & Alonso-Arbiol, 2011).

Emotion regulatory processes, the processes “by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 275) are theorized to underlie this link (Mikulincer & Shaver, 2016) with empirical studies providing support for the role of emotion dysregulation (Cronin, Pepping, & O'Donovan, 2018), cognitive reappraisal (Karreman & Vingerhoets, 2012), emotion suppression, and emotion expression on this link for individuals (Ávila, Brandão, Teixeira, Coimbra, & Matos, 2015; Pascuzzo, Moss, & Cry, 2013). However, little attention has been paid to how emotion regulatory dynamics operate at the couple level. As part of an interdependent system across time, partners' exchanges shape each other's behavior and emotions as well as processes of emotion regulation and psychosocial adjustment and well-being (Overall & Lemay, 2015).

In this study, we adopt a dyadic approach to examine both intrapersonal and interpersonal effects of romantic attachment on well-being via indirect pathways related to emotion regulation. In particular, we focus on the potential mediating role of emotion suppression and emotion expression processes.

1.1 | Attachment and emotion regulation

The ways in which individuals establish supportive relationships have their roots in early experiences with key relational figures (Bowlby, 1988). According to Bowlby's attachment theory (1988), early relational experiences as well as potentially supportive exchanges across development with key relational figures are the building blocks for the development of representations of the self and others, referred to as *internal working models*. These internal working models are relatively stable over time, influencing the way people evaluate, appraise, and behave in close relationships across the life span and leading to systematic patterns of relational expectations, emotions, and behaviors called *attachment orientations* (Fraley & Shaver, 2000; Mikulincer & Shaver, 2016).

Differences in attachment orientations have been described along two continuous dimensions, namely anxiety

and avoidance (Shaver & Fraley, 2008). Anxiously attached individuals tend to be worried about being rejected, abandoned, or unloved, and tend to hyperactivate their attachment system, whereas avoidantly attached individuals tend to manifest discomfort with close relationships, fear intimate relationships, and tend to deactivate their attachment system, maintaining behavioral independence and emotional distance from romantic partners (Mikulincer, Shaver, & Horesh, 2006; Pietromonaco & Barrett, 2000).

Attachment orientations can explain individual differences in emotion regulation with attachment security leading to the development and use of healthier emotion regulation strategies (Feeney, 1995; Mikulincer, Shaver, & Pereg, 2003; Overall & Lemay, 2015; Shaver & Mikulincer, 2009). Emotion regulation strategies can target different emotion regulatory processes (e.g., situation selection, cognitive change or response modulation; Gross, 2014) and are often characterized in terms of whether they promote distancing from (e.g., emotion suppression—a strategy in which individuals hide, inhibit, or reduce emotion-expressive behavior; Gross, 2014) or engagement with negative affective experiences (e.g., express/communicate emotions to others). Distancing strategies are typically associated with more adaptational costs (Waldinger & Schulz, 2010). In this study, we will focus on two emotion regulation processes related to response modulation: emotion suppression and emotion expression. These strategies were chosen because they are common in social exchanges (including in partners' interaction; Dworkin, Zimmerman, Waldinger, & Schulz, 2018), are accessible to conscious awareness, and have important social-communicative and -affiliative functions, which, when disrupted, can lead to negative consequences for relationships (e.g., Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013; Butler et al., 2003). It is important to note that suppression and expression do not represent opposite sides of the same construct. Indeed, studies have shown that they seem to occur independently and are likely to exert different influences on intrapersonal and interpersonal outcomes (see Cameron & Overall, 2018 for a review).

Studies have shown that anxiously attached individuals tend to use *hyperactivating attachment strategies* that include attention to negative thoughts and emotions and intensification of and strong expression of negative emotions (Burnette, Davis, Green, Worthington, & Bradfield, 2009; Caldwell & Shaver, 2012; Winterheld, 2015). Some inconsistent findings, however, have been found in the link between attachment anxiety and emotional expression. While some studies found a positive association among these variables (Mikulincer & Nachshon, 1991; Tan, Overall, & Taylor, 2012), others have found a negative association (Feeney, 1995; Remen, Chambless, & Rodebaugh, 2002). Discrepancies in findings may be associated with ambivalence that anxiously attached individuals may feel about how to respond to concerns about the availability of an attachment figure. These ambivalent

individuals may end up signaling attachment needs in indirect ways (e.g., differences in the verbal and nonverbal expression of emotions) (Mikulincer & Shaver, 2016) that may lead to different conclusions about emotionality, depending on what channels of expression are the primary focus of researchers. Avoidantly attached individuals tend to value strength and emotional independence (Mikulincer & Shaver, 2016). To regulate their affect they tend to adopt *attachment deactivating strategies* such as diverging attention away from threat-related emotions, denying emotional experiences, suppressing negative emotions, and inhibiting emotional expression (Caldwell & Shaver, 2012; Karreman & Vingerhoets, 2012; Monti & Rudolph, 2014; Winterheld, 2015).

Few studies have examined the association between attachment and emotion regulation using a dyadic approach. Winterheld (2015) found that more anxiously attached individuals expressed more negative emotions, especially when their partners were less avoidant. Anxiously attached individuals suppressed more emotion only if their partners were highly avoidant. In contrast, avoidantly attached individuals suppressed their emotions more when their partners were highly avoidant (Winterheld, 2015). In a laboratory study, Paley, Cox, Burchinal, and Payne (1999) found that during conflict interactions participants expressed more negative emotions when their partners were more avoidantly attached. In a series of laboratory-based observational studies, it has been found that individuals' behavior and emotion regulation is related to their partners' attachment orientations (e.g., Farrell, Simpson, Overall, & Shallcross, 2016; Lemay & Dudley, 2011). These studies provide support for the idea that the attachment orientation or a romantic partner might shape the other partner's emotion regulatory efforts. These connections warrant further study as they need to be considered along with indications of adaptation, such as psychological well-being.

1.2 | Emotion regulation and psychological well-being at the individual and couple levels

The way emotions are regulated by one member of the couple may have important consequences not only for that individual's psychological well-being but also for the other member. Emotion regulation strategies are likely to influence the quality of interpersonal interactions and behaviors as well as responses to life events (Gross, 2014).

In terms of intrapersonal effects, individuals who are higher in *emotional suppression* have lower psychological well-being, poorer subjective health, and a tendency to have concerns about unavailability of support and to report less closeness to others (Gross & John, 2003; Gross & Munoz, 1995; Nelis et al., 2011; Saxena, Dubey, & Pandey, 2011). Generally, an emotion regulatory style characterized by emotional suppression seems to be less adaptive and is a risk

factor for a wide range of psychological disorders (see Aldao, Nolen-Hoeksema, & Schweizer, 2010, for a meta-analysis). In contrast, individuals who tend to express their emotions more generally report more psychological well-being (Saxena & Mehrotra, 2010).

The adaptational costs of distancing emotion regulation strategies and the benefits of emotionally engaging strategies extend to the well-being of relationships. In terms of relational outcomes, studies have found that the use of distancing emotion regulation strategies (e.g., emotion control or emotion suppression) has implications for relationship outcomes, in terms of lower marital quality and more thoughts about breaking up (Chervonsky & Hunt, 2017; Feeney, 1999; Impett et al., 2012; Velotti et al., 2016). The expression of positive and general emotions, on the contrary, has been associated with better relationship outcomes; the expression of negative emotion, however, has yielded mixed findings (Chervonsky & Hunt, 2017).

Studies with couples have provided evidence for the presence of important dyadic influence. Abilities to regulate negative emotions have been positively associated not only with one's own marital satisfaction but also with a relationship partner's marital satisfaction (Bloch, Haase, & Levenson, 2014; Velotti et al., 2016). Moreover, it has been found that interacting with an emotionally suppressing partner may contribute to difficulties in emotional expression and be linked to physical difficulties such as higher blood pressure (Butler et al., 2003; Peters, Overall, & Jamieson, 2014). One's own pattern of emotion expression has also been linked to a partner's assessment of relationship functioning (Guerrero, Farinelli, & McEwan, 2009). These findings highlight the need for adopting a dyadic approach to fully understand the influence of styles of emotional expression on psychological well-being.

1.3 | Emotion regulation as a linking mechanism

Although the link between attachment orientation and individual and interpersonal outcomes has received considerable attention (e.g., Givertz et al., 2013; Mikulincer & Shaver, 2016; Molero et al., 2011), the mechanisms underlying this link have received far less attention. A previous study focusing only on individual influences found that expressive suppression did not mediate the link between attachment and psychological well-being, but that positive reappraisal did (Karreman & Vingerhoets, 2012). Other studies have provided evidence for the mediating role of emotion regulation in the association between attachment and depression (see Malik, Wells, & Wittkowski, 2015 for a review).

At a dyadic level, Guerrero et al. (2009) found evidence of a mediating role for different elements of emotion communication in explaining the link between one's own attachment

orientation and a partner's relational satisfaction. The studies that have explored the mediating role of emotion regulatory efforts in the link between attachment and individuals' and partner's functioning have not typically examined intrapersonal and interpersonal influences at the same time, which creates the possibility that effects may be mistakenly attributed to one level when they really can reflect effects also from the other level. Also, Overall, Fletcher, Simpson, and Fillo (2015) found in their laboratory-based observational study that more avoidantly individuals tend to overestimate the intensity of their partners' negative emotions, which in turn lead to more hostile and defensive behaviors toward them.

Taken together, the studies presented above provide evidence that supports the role of emotion regulation as a promising mediator that links attachment orientation and psychological well-being. The interpersonal effects found in studies exploring the link between attachment orientations or emotion regulation strategies and couple functioning suggest the need for examining these links in a fully dyadic framework that simultaneously accounts for both intrapersonal and interpersonal influences. In this study, we conceptualize well-being as a multidimensional construct consisting of different key components, including positive relationships with others, personal mastery, autonomy, a feeling of purpose and meaning in life, and personal growth and development (Ryff & Keyes, 1995).

1.4 | Intrapersonal hypotheses

We hypothesized that attachment anxiety and avoidance would be negatively associated with one's own psychological well-being (H1; H2) (Kafetsios & Sideridis, 2006; Wei et al., 2003, 2005); moreover, we hypothesized that attachment anxiety would be positively associated with emotion expression (H3) and negatively associated with emotion suppression (H4) (Burnette et al., 2009; Caldwell & Shaver, 2012; Winterheld, 2015), and that attachment avoidance would be negatively associated with emotion expression (H5) and positively associated with emotion suppression (H6) (Caldwell & Shaver, 2012; Karreman & Vingerhoets, 2012; Monti & Rudolph, 2014; Winterheld, 2015). We expected also that higher levels of emotion suppression (H7) and lower levels of emotion expression (H8) would be associated with worse psychological well-being (Gross & John, 2003; Nelis et al., 2011; Saxena et al., 2011).

1.5 | Interpersonal hypotheses

Furthermore, based on previous findings from studies employing a dyadic framework and exploring relational outcomes, we examined a series of hypotheses about dyadic influences; that is, the influence of a variable on one's partner. We hypothesized that one's own attachment insecurity would be negatively associated with the partner's psychological

well-being (H9) (e.g., Givertz et al., 2013; Kane et al., 2007; Molero et al., 2011) and with the partner's emotion regulation (H10) (Paley et al., 1999; Winterheld, 2015). Also, we hypothesized that one's own emotion regulation would be associated with the partner's well-being (H11) (Butler et al., 2003; Guerrero et al., 2009; Peters et al., 2014). Finally, we hypothesized that one's own attachment insecurity would be negatively associated with the partner's psychological well-being through own and partner's emotion suppression and emotion expression (H12) (Guerrero et al., 2009; Karreman & Vingerhoets, 2012; Pascuzzo et al., 2013).

2 | METHOD

2.1 | Participants

In this study, we included 119 heterosexual couples with a mean age of 37 years for men ($SD = 4.79$; $Min = 23$; $Max = 49$) and 36 years for women ($SD = 3.80$; $Min = 23$; $Max = 48$). Couples had been living together for an average of 10 years ($SD = 48.06$; $Min = 2$ years; $Max = 24$ years), 49% had one child, 48% had two children, 3% had three children, and 1% had four children ($M = 1.6$, $SD = 0.59$). Of the men, 35% held a university degree, 36% had completed secondary education, 22% had attended the 9th grade, and 7% had attended the 6th grade. For the women, 58% held a university degree, 27% had completed secondary education, 11% had attended the 9th grade, and 4% had attended the 6th grade.

Recruitment was fairly effective in obtaining families that are characteristic of Portugal: the vast majority of male participants (96%) and female participants (91%) were employed; 55% of couples with children were employed and 50% of these dual-earner couples have at least one child under 6 years of age (Statistics Portugal, Instituto Nacional de Estatística, 2011). Our participants resemble the dual-earner Portuguese population in terms of age range (according to 2011 national census, 55% of the population have between 25 and 64 years old) but not in terms of education level (according to 2011 national census only 15% held a university degree).

3 | PROCEDURE

This study is part of a larger research project aiming to understand the impact of work–family dynamics on family relations and children's development. Couples were recruited from both public and private preschools in the Porto metropolitan area. The general objectives of the study were explained to school coordinators and preschool teachers, who recruited parents who expressed interest in participating in the study. Flyers describing the study and copies of packets containing the questionnaires were distributed to potential participants. Participation was voluntary and confidentiality was ensured.

Individuals who agreed to participate provided their written informed consent and were instructed to complete the surveys independently and place them in separate, sealed envelopes. The study was approved by the Ethics Committee of the Faculty of Psychology and Education Science of the University of Porto.

3.1 | Measures

3.1.1 | Psychological well-being

Psychological well-being was measured with the brief 18-item version of *The Ryff Scale of Psychological Well-Being—Revised* (Ryff & Keyes, 1995; Portuguese version: Novo, Duarte-Silva, & Peralta, 1997). Items are scored on a Likert-type scale from 1 (*strongly disagree*) to 6 (*strongly agree*). There are six subscales each containing three items: autonomy (e.g., “I have confidence in my opinions, even if they are contrary to the general consensus”); environmental mastery (e.g., “I am quite good at managing the many responsibilities of my daily life”); personal growth (e.g., “I think it is important to have new experiences that challenge how you think about yourself and the world”); positive relations with other (e.g., “Maintaining close relationships has been difficult and frustrating for me”); purpose in life (e.g., “I enjoy making plans for the future and working to make them a reality”); and self-acceptance (e.g., “I like most aspects of my personality”). A confirmatory factor analysis (CFA) taking into account the nonindependence of data was performed to analyze the structure of the overall scale. Due to the sample size and the clearly defined dimensions of the measure, we conducted the CFA using parceling, with each parcel representing a subscale. Model fit evaluation was based on four indicators, namely χ^2/df statistic (<5), the comparative fit index (CFI) (>0.90), the goodness of fit index (GFI) (>0.90), and the root mean square error of approximation (RMSEA) (<0.08) (Hooper, Coughlan, & Mullen, 2008). The CFA showed evidence for a second-order factor capturing overall well-being with an acceptable model fit ($\chi^2_{(53)} = 93.532$; $p = .000$; $\chi^2/df = 1.77$; CFI = 0.89; GFI = 0.89; RMSEA = 0.08, $p_{close} = 0.037$). Additional CFA analysis provided partial measurement invariance for factor loadings across the two dyad members ($\chi^2_{dif}(53) = 8.55$, $p = .073$). The parcel related to the subscale positive relations with other was freely estimated. Cronbach's α in our study for the overall measure was .82 and .81 for women and men, respectively. The subsequent model was tested using manifest variables that resulted from the second-order factors (for women and for men separately).

3.1.2 | Attachment

Attachment was measured using the *Experiences in Close Relationship—Relationship Structures Questionnaire* (Fraley, Heffernan, Vicary, & Brumbaugh, 2011; Portuguese

version: Moreira, Martins, Gouveia, & Canavarro, 2015), a 9-item questionnaire scored on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). This questionnaire includes two subscales: avoidance (6 items; e.g., “I prefer not to show this person how I feel deep down”) and anxiety (3 items; e.g., “I often worry that this person does not really care for me”). The CFA taking into account the nonindependence of data revealed an acceptable model fit for the two-factor structure ($\chi^2_{(124)} = 212.54$; $p = .000$; $\chi^2/df = 1.71$; CFI = 0.90; GFI = 0.85; RMSEA = 0.08, $p_{close} = 0.006$). The CFA provided evidence for measurement invariance for all factor loadings except for items 1, 7 (avoidance subscales) and 14 (anxiety subscale) across the two dyad members ($\chi^2_{(6)} = 6.97$, $p = .324$). The subsequent model was tested using manifest variables that resulted from the second-order factors. Cronbach's α in our study for the anxiety subscale was .84 for men and .86 for women; for the avoidance subscale was .74 for men and .76 for women.

3.1.3 | Emotion regulation

Two main dimensions of emotion regulation were assessed: *emotion expression* and *emotion suppression*. Emotion expression was measured by adapting three items related to expressing emotions in the context of intimate relationships from the *Stanford Emotional Self-Efficacy Scale* (Giese-Davis et al., 2004). While this scale assesses an individual's confidence in the ability to communicate emotional distress to the romantic partner we adapted it to assess an individual's tendency to communicate emotions to their romantic partners (“Express love, affection, caring to my spouse”; “Ask for the emotional support I need from my spouse”; “Cry or express other emotions to my spouse”). Respondents used a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*) to report how much they express their emotions to their romantic partner. *Suppression* was measured using the *Emotion Regulation Questionnaire* (ERQ, Gross & John, 2003; Portuguese version: Machado Vaz, 2009). The ERQ is a widely used instrument that uses four items to assess emotional suppression or the individual's tendency to inhibit their ongoing emotion-expressive behavior (e.g., “I keep my emotions to myself”) scored on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

A CFA taking into account the nonindependence of data revealed good model fit for a two-factor structure of emotion regulation ($\chi^2_{(70)} = 102.18$; $p = .007$; $\chi^2/df = 1.46$; CFI = 0.93; GFI = 0.90; RMSEA = 0.06, $p_{close} = 0.206$). Data analysis evidenced measurement invariance for factor loadings across the two dyad members: ($\chi^2_{(4)} = 5.14$, $p = .273$). Emotions suppression was negatively associated with emotions expression for both women ($r = -.25$, $p < .05$) and men ($r = -.39$,

$p < .001$). The subsequent model was tested using manifest variables that resulted from the second-order factors. Cronbach's α in our study was .70 for men and .73 for women for emotions expression, and .70 for men and .75 for women for suppression.

3.2 | Data analysis

Prior to conducting the main analyses, missing data were imputed through expectation–maximization (EM). EM is an effective method when data are missing completely at random and none of the items is missing more than 5% of values (Tabachnick & Fidell, 2007). These assumptions were checked and verified in our sample. Preliminary analyses including basic descriptive analyses to examine means and variability and Pearson correlations to explore simple associations among study variables were performed.

The actor–partner interdependence mediation model (APIMeM) (Lederman, Macho, & Kenny, 2011) was used to test our main hypotheses about the intra- and interpersonal associations between attachment, emotion regulation, and psychological well-being for partners in a couple relationship. The APIMeM facilitates the examination of mediating effects in dyadic data. It is an extension of the Actor-Partner Interdependence Model (APIM) developed by Kenny, Kashy, and Cook (2006) that takes into account interdependence within interpersonal relationships and simultaneously estimates intrapersonal effects or *actor effects* (i.e., their own attachment and emotion regulation and their own psychological well-being) and interpersonal effects or *partner effects* (i.e., their own attachment and emotion regulation and their partner's psychological well-being). The simultaneous analysis allows for identification of which associations, including indirect effects, are of intrapersonal influences (actor effect) or dyadic/relational influences (partner effects).

APIMeM analyses were implemented in a structural equation modeling (SEM) framework (with AMOS, v. 24) using maximum-likelihood estimation. Given that length of relationship varied substantially across dyads, it was controlled for in all analyses.¹ Comparisons in $\Delta \chi^2/df$ were made between models in which actor and partner paths simultaneously were constrained to be homogenous for men and women and a less restrictive model in which these paths were freely estimated in order to test for gender differences. If the $\Delta \chi^2$ test is significant it indicates that the model is not homogenous across gender (i.e., that there are gender differences).

In the second stage of analysis, mediation was tested by examining direct and indirect effects using bootstrap resampling procedures (MacKinnon, Lockwood, & Williams, 2004). The bias-corrected bootstrap 95% confidence interval (CI) for the unstandardized effects was used and bootstrap estimates were based on 5,000 bootstrap samples (Ledermann

et al., 2011). To obtain bootstrap tests for all indirect effects separately we followed the procedure outlined by Sadler, Ethier, and Woody (2011). Model fit evaluation was based on the same indicators used in CFA.

4 | RESULTS

4.1 | Preliminary analysis

Means, standard deviations, and zero-order intercorrelations of all variables in the model are presented in Table 1. In terms of intrapersonal correlations, attachment avoidance levels were negatively associated with emotion expression and psychological well-being and positively associated with emotion suppression. Attachment anxiety levels were negatively associated with psychological well-being and negatively associated with emotion suppression. Emotion expression was negatively associated with emotion suppression. Finally, emotion suppression was negatively associated with psychological well-being.

With regard to interpersonal correlations, men's attachment avoidance was negatively associated with women's emotion expression and women's psychological well-being. Men's attachment anxiety was positively associated with women's emotion suppression. Men's emotion suppression was negatively associated with women's emotion expression. Women's attachment avoidance was negatively associated with men's emotion expression and positively associated with men's emotion suppression. Women's attachment anxiety was positively associated with men's emotion suppression. Finally, women's emotion expression was negatively associated with men's emotion suppression.

4.2 | Actor and partner direct effects among attachment, emotion regulation and well-being (Hypotheses 1–11)

The APIMeM model was found to be homogenous across gender for all actor and partner direct effects ($\Delta \chi^2_{(16)} = 18.98, p = .270$), with the exception that the path linking attachment avoidance and emotion expression was stronger for men and was therefore left free to be estimated separately for men and women. The model provided a good fit to the data ($\chi^2_{(24)} = 28.34; p = .246; \chi^2/df = 1.18; CFI = 0.99; GFI = 0.96; RMSEA = 0.04, p_{close} = 0.591, 90\% CI 0.000, 0.088$) and accounted for 20% and 33% of the total variance in women's and men's psychological well-being, respectively. Direct effects are presented in Table 2 and indirect effects are presented in Table 3.

In terms of actor effects (H1–H8), we found significant negative actor effects from attachment avoidance to psychological well-being and to emotion expression, and significant positive actor effects from attachment avoidance to emotion

TABLE 1 Means, standard deviations, and Pearson correlations among study variables ($N = 119$)

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Avoidance M	1.80	0.89	-								
2. Anxiety M	2.51	1.62	0.259**	-							
3. Emotions expression M	5.95	0.92	-0.311**	0.033	-						
4. Emotions suppression M	2.86	1.38	0.363**	0.260**	-0.364**	-					
5. Psychological well-being M	4.56	0.56	-0.263**	-0.233*	0.102	-0.297**	-				
6. Avoidance W	1.85	0.76	0.358**	0.143	-0.250**	0.206*	-0.176	-			
7. Anxiety W	3.10	1.84	0.137	0.398**	0.034	0.258**	0.164	0.266**	-		
8. Emotions expression W	5.55	0.85	-0.229**	-0.096	0.492**	-0.243**	0.049	-0.657**	-0.056	-	
9. Emotions suppression W	3.34	1.28	0.169	0.299**	-0.169	0.319**	-0.204*	0.377**	0.254**	-0.523**	-
10. Psychological well-being W	4.62	0.53	-0.224*	-0.080	0.006	-0.199*	0.294**	-0.420**	-0.244**	0.253**	-0.305**
r^a			0.70	3.36**	-2.01*	3.45**	0.76				

Abbreviations: M, men; W, women.

^aThe paired sample t test was calculated between women's and men's scores.* $p < .05$; ** $p < .01$.**TABLE 2** Significant direct effects (maximum likelihood estimates) between attachment avoidance, attachment anxiety, emotions expression, suppression, and psychological well-being (Hypotheses 1–11)

Effect predictor → outcome	<i>B</i>	<i>SE</i>	<i>p</i>
Intrapersonal effects (H1–H8)			
Attachment avoidance → well-being	-0.19	0.08	.016
Attachment anxiety → well-being	-0.15	0.06	.016
Attachment avoidance → emotions expression men	-0.71	0.05	.000
Attachment avoidance → emotions expression women	-0.49	0.06	.000
Attachment avoidance → emotions suppression	0.40	0.07	.000
Emotions Expression → well-being	0.20	0.10	.040
Emotions suppression → well-being	-0.16	0.06	.009
Interpersonal effects (H9–H11)			
Attachment avoidance → well-being	-0.21	0.08	.006
Attachment anxiety → well-being	0.12	0.06	.050
Attachment anxiety → emotions suppression	0.19	0.07	.009
Emotions expression → well-being	-0.34	0.10	.000

Note: $N = 119$ couples. Controlling for relationship length. Given gender invariance, B and SE were equal for men and women (exception being the link between attachment avoidance and emotions expression, in which we present B and SE for both men and women).

Abbreviations: B , unstandardized estimate; H, hypotheses; SE , standard error.

suppression. We found also a negative actor effect from attachment anxiety to psychological well-being and from emotion expression to psychological well-being. A negative actor effect from emotion suppression to psychological well-being was also found (Table 2).

In terms of partner effects (H9–H11), we found that one's own attachment avoidance was negatively associated with a partner's psychological well-being; own attachment anxiety was positively associated with the partner's psychological well-being and emotion suppression. Finally, one's own emotion expression was negatively associated with the partner's psychological well-being (Table 2).

4.3 | Actor and partner indirect effects of attachment on well-being through emotion regulation (Hypothesis 12)

We found one actor indirect effect. One's own attachment avoidance was negatively associated with one's own psychological well-being through one's own levels of emotion suppression. Three partner indirect effects were found. Own attachment avoidance was negatively associated with own levels of emotion expression which in turn was negatively associated with the partner's psychological well-being. Own

TABLE 3 Bootstrap test for indirect effects for the APIMeM with attachment avoidance and attachment anxiety as independent variables, emotions expression and suppression as mediators, and psychological well-being as outcome (Hypothesis 12)

Effect	<i>B</i>	<i>SE</i>	<i>p</i>	Bootstrapping	
				Lower	Upper
Intrapersonal					
Avoidance → emotions suppression → well-being	−0.07/−0.08	0.04/0.04	.012/.010	−0.156/−0.165	−0.015/−0.019
Avoidance → emotions expression → well-being	−0.08/−0.13	0.05/0.08	.075/.080	−0.186/−0.301	0.011/0.020
Anxiety → emotions expression → well-being	0.00/0.00	0.03/0.03	.946/.947	−0.064/−0.063	0.061/0.061
Interpersonal					
Anxiety women → emotions suppression men → well-being men	−0.04	0.02	.006	−0.085	−0.010
Anxiety men → emotions suppression women → well-being women	−0.04	0.02	.006	−0.090	−0.011
Avoidance women → emotions expression women → well-being men	0.13	0.04	.000	0.060	0.217
Avoidance men → emotions expression men → well-being women	0.22	0.07	.000	0.105	0.392
Anxiety women → emotions expression women → well-being men	−0.03	0.02	.014	−0.080	−0.007
Anxiety men → emotions expression men → well-being women	−0.04	0.02	.013	−0.083	−0.008

Note: *N* = 119 couples; 5,000 bootstrap sample. Controlling for relationship length.

Abbreviations: *B*, unstandardized estimate; *p*, bootstrap bias corrected *p* values; *SE*, standard error; (women/men).

attachment anxiety was positively associated with own levels of emotion expression which in turn was negatively associated with the partner's psychological well-being. Finally, own attachment anxiety was positively associated with the partner's levels of emotion suppression which in turn was negatively associated with the partner's levels of psychological well-being. See Figure 1 for a graphical depiction of these effects.

5 | DISCUSSION

The aim of this study was to examine intrapersonal (actor) and interpersonal (partner) associations between attachment orientation and psychological well-being, and to explore whether these associations were mediated by emotion regulation strategies. A dyadic approach to data analysis was implemented, allowing us to simultaneously estimate actor and partner effects. Results indicated the existence of both actor and partner effects of attachment orientation on emotion regulation strategies and psychological well-being for the two members of the couple. In addition, indirect actor and partner effects were found. While attachment theory can be conceptualized as an affect regulation theory, studies have shown that attachment constructs and emotion

regulation constructs can be unpacked and that their associations require a better understanding. Differences in attachment orientations can lead to multiple manifestations and these manifestations can include different emotion regulatory efforts. The consequences of these manifestations should be further explored. This study contributes to a better understanding of these adaptational consequences in terms of individuals' psychological well-being.

5.1 | Links among attachment, emotion regulation, and well-being

Attachment anxiety and attachment avoidance were significantly and negatively associated with psychological well-being as predicted in H1 and H2. These findings are consistent with previous studies employing only an individual level of analysis (e.g., Kafetsios & Sideridis, 2006; Wei et al., 2005). Our findings also identified linkages between attachment orientation and well-being that operated across romantic partners. One's own attachment avoidance and anxiety levels were associated with a partner's psychological well-being (H9) even after controlling for any intrapersonal associations. Overall, these findings expand previous research on the individual level and reinforce the need to utilize a dyadic view. People's well-being is determined by a

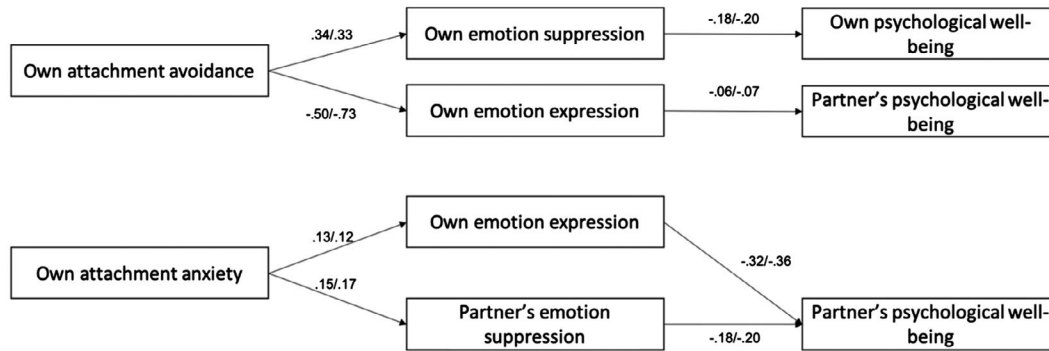


FIGURE 1 Significant intrapersonal and interpersonal indirect effects (standardized estimates women/men)

myriad of individual factors but also by aspects relating to their relational partners.

Contrary to our hypotheses, no significant linkages were found between attachment anxiety and emotion expression (H3) or emotion suppression (H4). Some previous studies have found inconsistent links (Tan et al., 2012) or null associations (Brandão, Schulz, & Matos, 2018) between attachment anxiety and different types of emotion regulation strategies. It is possible that concerns about the availability of an attachment figure may lead to complex effects on emotion processes with differences in expression linked to different types of emotions. Also, it is possible that attachment anxiety influences well-being through types of emotion regulation not examined in this study (e.g., ruminative processes; Ávila et al., 2015).

For both men and women, attachment avoidance was found to be negatively associated with one's own reports of how much emotion was shared with a romantic partner (H5) and positively associated with a general tendency to suppress emotions (H6). Nevertheless, while these avoidance-related effects were of similar magnitude for both genders, the link between attachment avoidance and expression of emotions within romantic relationships was stronger for men than for women. These findings corroborate previous research that pointed to the tendency of avoidantly attached individuals to use deactivating strategies to down regulate their emotions and dampen their emotional reactions (Mikulincer et al., 2003; Mikulincer & Shaver, 2016). Because avoidantly attached individuals tend to experience fear of intimacy and to show discomfort within close relationships, they are less likely to share and express their emotions with their romantic partners. They also may adapt this style more generally in their life by showing a tendency to generally suppress the expression of emotion. Experiencing and expressing emotions may be viewed as a sign of weakness and activate the attachment system and fears of rejection. In addition to the ways in which attachment orientations may shape specific emotion regulation strategies, men and women may be encouraged to deal with their emotions in different ways (Chaplin, 2015). Women are socialized to be more expressive of their

emotional needs and to be more attentive to their and others' emotional cues; this difference in socialization may help explain why the link between attachment avoidance and emotion expression within intimate relationships is weaker for women.

The results also point to interesting interpersonal processes involved in the association between attachment insecurity and emotion regulation strategies. As hypothesized, one's own attachment orientations were associated with both one's own and one's partner's psychological well-being (H9), that is, attachment insecurity appeared to have both intrapersonal and interpersonal costs for well-being, which is consistent with previous findings (e.g., Givertz et al., 2013; Molero et al., 2011). Moreover, one's own attachment orientations were associated not only with one's own emotion regulation strategies but also with a partners' emotion regulation strategies (H10). More specifically, own attachment anxiety was positively associated with the partner's emotion suppression. These interpersonal associations suggest that attachment insecurity takes a toll not only on the individual but also on partners. Anxiously attached individuals' tendency to amplify emotional expression or attend vigilantly to negative aspects of partners' behavior (Overall & Lemay, 2015) may shape their partners' emotion regulatory style in important ways. On one hand, partners of anxiously attached individuals in this study reported a general tendency to suppress their emotions. It is possible that these individuals may focus on pleasing any interaction partner instead of pursuing their own needs or freely expressing their emotions (Overall & Lemay, 2015). It is also possible that individuals with higher levels of attachment anxiety tend to select partners who tend to suppress more emotions (Downey, Freitas, Michaelis, & Khouri, 1998; Holmes & Johnson, 2009).

It is also possible, however, that being in a romantic relationship with partners who tend to suppress or hide their emotions activates attachment fears and may reinforce an anxious attachment orientation. This dyadic effect was also found in the Winterheld's (2015) study in which both anxiously and avoidantly attached individuals regulated their emotions in ways that corresponded to their partners'

attachment orientation. Future studies should therefore examine dyadic patterning of attachment orientations and how these patterns might influence emotional expression with romantic partners. Longitudinal designs could help unravel the complex interplay between more personological characteristics, perhaps acquired during early years of development, and the relational dynamics of the couple.

As expected, both emotion suppression (H7) and emotion expression in the context of intimate relationships (H8) were associated with psychological well-being, suggesting that expressive patterns can influence the psychological state of individuals (e.g., Gross & John, 2003). The presence of partner effects (H11) in this linkage highlights dyadic influences related to emotion expression, which is consistent with previous studies (e.g., Guerrero et al., 2009).

5.2 | The mediational role of emotion regulation

As hypothesized (H12), the findings from this study provide support for the mediating role of emotion regulation strategies in the association between attachment orientation and psychological well-being. Both actor and partner indirect effects were found. In terms of actor indirect effects, attachment avoidance was negatively associated with psychological well-being through a general tendency to suppress emotions. It is possible that the recurrent use of strategies to suppress the expression of emotions to others can lead to a greater experience of difficulties in multiple components of psychological well-being (e.g., feel dissatisfied or disappointed with self or own life; feel isolated or frustrated with interpersonal relationships).

In terms of partner effects, one's own attachment anxiety was associated with partners reporting lower psychological well-being and this link was partially mediated by both intrapersonal (one's own expression of emotions in couple relationships) and interpersonal (a partner's general tendency to suppress) mechanisms. Anxiously attached individuals' tendency to perceive their attachment figures as unavailable and unresponsive may help explain the first linking mechanism (one's own emotion expression). Intensifying the expression of emotions may serve as a signal for calling the partners' attention or can be a signal to partners that they are feeling abandoned. Anxiously attached individuals may also get caught in cycles of rumination due to their hyperattention to attachment concerns (Burnett et al., 2009; Winterheld, 2015). Because these types of responses tend to be self-focused and reassurance-seeking they can generate distress and promote partner resentment and dissatisfaction; partners may feel annoyed or overwhelmed with the clinging behavior presenting less psychological well-being. Also, they may contribute to the partner's greater tendency to suppress their emotions and to their lowered psychological well-being (Overall & Lemay, 2015).

In regard to the second linking mechanism, past research suggests that anxiously attached individuals tend to escalate their efforts to get their partners to respond to relational needs (Simpson & Rholes, 2017) and this may limit partners' ability to deal with their own emotions. Consequently, the partners may feel a need to suppress their own emotions, which may, in turn be detrimental to their psychological well-being. Another possible explanation may be related to a self-fulfilling prophecy hypothesis (Downey et al., 1998), wherein rejection expectations lead people to behave in ways that elicit rejection from their partners. More anxiously attached individuals are more dependent on others' approval and validation of their experiences; however, they tend to expect rejection and abandonment, due to inconsistent and ambivalent responses from significant others. Emotion suppression from partners tends to confirm that they are not sensitive and available to provide support and, consequently, confirm rejection expectations of more anxious attached individuals. Although these mechanisms are associated with a decrease in psychological well-being of both partners, curiously, this kind of interactions may self-perpetuate the relationships, by confirming and reinforcing preexisting working models. Note that, as we used APIM, we controlled for the nonindependence of partners' data; thus, the findings account for partner's levels of avoidance.

Finally, one's own attachment avoidance was negatively associated with the partner's psychological well-being through one's own lack of emotion expression. It is not surprising that the tendency of avoidantly attached individuals to strive for relational autonomy and independence and to inhibit their emotional expression (Karreman & Vingerhoets, 2012; Monti & Rudolph, 2014; Winterheld, 2015) can lead the partner to feel the other is not a sensitive and responsive caregiver and have costs for their psychological well-being.

5.3 | Conclusions

Our findings demonstrate that the use of a dyadic framework can bring a new level of understanding to complex associations among attachment, emotion regulation and psychological well-being in couples. In order to gain a full understanding of the nature of these links it is important to examine not only influences that may operate within individuals (i.e., intrapersonal effects) but also ones that involve within-dyad dynamics (i.e., interpersonal effects).

There are some limitations in this research that need to be considered. First, the majority of participants in the sample were highly educated dual-earner parents of preschool-aged children. This may limit the generalization of findings to other samples. The sample, however, does tap a characteristic family pattern in Portugal (in terms of dual-earner couples with preschool aged children). Second, the use of a cross-sectional design limits the possibility of inferring causal

connections. For this reason, longitudinal studies should be conducted, and future studies should test alternative models. Third, the study relied exclusively on self-report measures, which are susceptible to response and social desirability biases. Future studies should replicate these results employing a multimethod approach, including self-report and behavioral observations.

Despite these limitations, our results have important implications for clinical practice. Attachment orientations are believed to form over long periods of time and show relative stability (Fraley, 2002). For this reason, identifying targets of intervention that are associated with attachment but are more malleable is critical. Our findings suggest that these targets may be patterns of emotion expression. The research also suggests that any intervention aimed at emotion regulation must consider the interpersonal consequences of these regulatory strategies in addition to intrapersonal consequences. Clinicians should work to create a supportive context for exploring emotion challenges particularly in interpersonal contexts of insecurely attached individuals. Efforts can be made to promote adaptive strategies to regulate emotion in the context of couple relationships. An awareness of partners' insecurities may help to reduce insecure reactions and help to deal with fears of rejection and abandonment in the context of close relationships.

Additional areas of therapeutic focus suggested by this research include focusing on exploring needs and challenges involved in communicating attachment concerns, promoting the identification and effective signaling of emotions, and improving abilities to understand and respond to a partner's emotions. These foci could be targeted in individual or couple interventions, but regardless of the venue, may help improve individual psychological well-being. By helping individuals improve the way they regulate their emotions individually and in couple interactions clinical work may foster greater security and well-being.

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CONFLICT OF INTERESTS

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ORCID

Tânia Brandão  <https://orcid.org/0000-0001-7865-2445>

Marisa Matias  <https://orcid.org/0000-0002-5755-5096>

Tiago Ferreira  <https://orcid.org/0000-0002-2884-2547>

Paula Mena Matos  <https://orcid.org/0000-0001-5763-8070>

ENDNOTE

¹ Controlling for relationship length did not alter the significance of the findings.

REFERENCES

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*, 217–237. <https://doi.org/10.1016/j.cpr.2009.11.004>
- Ávila, M., Brandão, T., Teixeira, J., Coimbra, J. L., & Matos, P. M. (2015). Attachment, emotion regulation, and adaptation to breast cancer: Assessment of a mediational hypothesis. *Psycho-Oncology, 24*, 1514–1520. <https://doi.org/10.1002/pon.3817>
- Ben-Naim, S., Hirschberger, G., Ein-Dor, T., & Mikulincer, M. (2013). An experimental study of emotion regulation during relationship conflict interactions: The moderating role of attachment orientations. *Emotion, 13*(3), 506–519. <https://doi.org/10.1037/a0031473>
- Bloch, L., Haase, C. M., & Levenson, R. W. (2014). Emotion regulation predicts marital satisfaction: More than a wives' tale. *Emotion, 14*, 130–144. <https://doi.org/10.1037/a0034272>
- Bowlby, J. (1988). *A secure base: Parent-child attachments and healthy human development*. New York, NY: Basic Books.
- Brandão, T., Schulz, M. S., & Matos, P. M. (2018). Attachment and adaptation to breast cancer: The mediating role of avoidant emotion processes. *European Journal of Cancer Care, 27*(2), e12830. <https://doi.org/10.1111/ecc.12830>
- Burnette, J. L., Davis, D. E., Green, J. D., Worthington, E. L. Jr, & Bradfield, E. (2009). Insecure attachment and depressive symptoms: The mediating role of rumination, empathy and forgiveness. *Personality and Individual Differences, 46*, 276–280. <https://doi.org/10.1016/j.paid.2008.10.016>
- Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J. J. (2003). The social consequences of expressive suppression. *Emotion, 3*, 48–67. <https://doi.org/10.1037/1528-3542.3.1.48>
- Caldwell, J. G., & Shaver, P. R. (2012). Exploring the cognitive-emotional pathways between adult attachment and ego-resiliency. *Individual Differences Research, 10*, 141–152.
- Cameron, L. D., & Overall, N. C. (2018). Suppression and expression as distinct emotion-regulation processes in daily interactions: Longitudinal and meta-analyses. *Emotion, 4*, 465–480. <https://doi.org/10.1037/emo0000334>
- Chaplin, T. M. (2015). Gender and emotion expression: A developmental contextual perspective. *Emotion Review, 7*, 14–21. <https://doi.org/10.1177/1754073914544408>
- Chervonsky, E., & Hunt, C. (2017). Suppression and expression of emotion in social and interpersonal outcomes: A meta-analysis. *Emotion, 17*, 660–683. <https://doi.org/10.1037/emo0000270>
- Cronin, T. J., Pepping, C. A., & O'Donovan, A. (2018). Attachment to friends and psychosocial well-being: The role of emotion regulation.

- Clinical Psychologist*, 22, 158–167. <https://doi.org/10.1111/cp.12159>
- Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personal and Social Psychology*, 75, 545–560. <https://doi.org/10.1037/0022-3514.75.2.545>
- Dworkin, J. D., Zimmerman, V., Waldinger, R. J., & Schulz, M. S. (2018). Capturing naturally occurring emotional suppression as it unfolds in couple interactions. *Emotion*. Advance online publication. <https://doi.org/10.1037/emo0000524>
- Farrell, A. K., Simpson, J. A., Overall, N. C., & Shallcross, S. L. (2016). Buffering the responses of avoidantly attached romantic partners in strain test situations. *Journal of Family Psychology*, 30(5), 580. <https://doi.org/10.1037/fam0000186>
- Feeney, J. A. (1995). Adult attachment and emotional control. *Personal Relationships*, 2, 143–159. <https://doi.org/10.1111/j.1475-6811.1995.tb00082.x>
- Feeney, J. A. (1999). Adult attachment, emotional control, and marital satisfaction. *Personal Relationships*, 6, 169–185. <https://doi.org/10.1111/j.1475-6811.1999.tb00185.x>
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships-relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, 23, 615–625. <https://doi.org/10.1037/a0022898>
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4, 132–154. <https://doi.org/10.1037/1089-2680.4.2.132>
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and social psychology review*, 6(2), 123–151.
- Giese-Davis, J., Koopman, C., Butler, L. D., Joss, J., Classen, C., Roberts, J., ... Spiegel, D. (2004). The Stanford emotional self-efficacy scale—cancer: Reliability, validity, and generalizability. In I. Nyklíček, L. Temoshok, & A. Vingerhoets (Eds.), *Emotional expression and health: Advances in theory, assessment and clinical applications* (pp. 204–222). New York, NY: Brunner-Routledge.
- Givertz, M., Wozidlo, A., Segrin, C., & Knutson, K. (2013). Direct and indirect effects of attachment orientation on relationship quality and loneliness in married couples. *Journal of Social and Personal Relationships*, 30(8), 1096–1120. <https://doi.org/10.1177/0265407513482445>
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2, 271–299. <https://doi.org/10.1037/1089-2680.2.3.271>
- Gross, J. J. (2014). Emotion regulation: Conceptual and empirical foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–22). New York, NY: The Guilford Press.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice*, 2, 151–164. <https://doi.org/10.1111/j.1468-2850.1995.tb00036.x>
- Guerrero, L. K., Farinelli, L., & McEwan, B. (2009). Attachment and relational satisfaction: The mediating effect of emotional communication. *Communication Monographs*, 76(4), 487–514. <https://doi.org/10.1080/03637750903300254>
- Holmes, B. M., & Johnson, K. R. (2009). Adult attachment and romantic partner preference: A review. *Journal of Social and Personal Relationships*, 26, 833–853. <https://doi.org/10.1177/0265407509345653>
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modeling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6, 53–60.
- Impett, E. A., Kogan, A., English, T., John, O., Oveis, C., Gordon, A. M., & Keltner, D. (2012). Suppression sours sacrifice: Emotional and relational costs of suppressing emotions in romantic relationships. *Personality and Social Psychology Bulletin*, 38, 707–720. <https://doi.org/10.1177/0146167212437249>
- Instituto Nacional de Estatística (2011). *Census Portugal*. Retrieved from: https://www.ine.pt/xportal/xmainxpId=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=73212469&PUBLICACOESmodo=2
- Kafetsios, K., & Sideridis, G. D. (2006). Attachment, social support and well-being in young and older adults. *Journal of Health Psychology*, 11, 863–875. <https://doi.org/10.1177/1359105306069084>
- Kane, H. S., Jaremka, L. M., Guichard, A. C., Ford, M. B., Collins, N. L., & Feeney, B. C. (2007). Feeling supported and feeling satisfied: How one partner's attachment style predicts the other partner's relationship experiences. *Journal of Social and Personal Relationships*, 24, 535–555. <https://doi.org/10.1177/0265407507079245>
- Karremans, A., & Vingerhoets, A. J. J. M. (2012). Attachment and well-being: The mediating role of emotion regulation and resilience. *Personality and Individual Differences*, 53, 821–826. <https://doi.org/10.1016/j.paid.2012.06.014>
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: The Guilford Press.
- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling: A Multidisciplinary Journal*, 18, 595–612. <https://doi.org/10.1080/10705511.2011.607099>
- Lemay, E. P. Jr., & Dudley, K. L. (2011). Caution: Fragile! Regulating the interpersonal security of chronically insecure partners. *Journal of Personality and Social Psychology*, 100(4), 681. <https://doi.org/10.1037/a0021655>
- Lopez, F. G., & Brennan, K. A. (2000). Dynamic processes underlying adult attachment organization: Toward an attachment theoretical perspective on the healthy and effective self. *Journal of Counseling Psychology*, 47, 283–300. <https://doi.org/10.1037/0022-0167.47.3.283>
- Lopez, F. G., Mitchell, P., & Gormley, B. (2002). Adult attachment orientations and college student distress: Test of a mediational model. *Journal of Counseling Psychology*, 49, 460–467. <https://doi.org/10.1037/0022-0167.49.4.460>
- Machado Vaz, F. J. (2009). *Diferenciação e regulação emocional na idade adulta: tradução e validação de dois Instrumentos de avaliação para a população Portuguesa [Differentiation and emotional regulation in adulthood: Translation and validation of two instruments to the Portuguese population]* (Unpublished master's thesis). Instituto de Educação e Psicologia, Braga.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39, 99–128. https://doi.org/10.1207/s15327906mbr3901_4

- Malik, S., Wells, A., & Wittkowski, A. (2015). Emotion regulation as a mediator in the relationship between attachment and depressive symptomatology: A systematic review. *Journal of Affective Disorders, 172*, 428–444. <https://doi.org/10.1016/j.jad.2014.10.007>
- Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology, 61*, 321–331. <https://doi.org/10.1037/0022-3514.61.2.321>
- Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood: Structure, dynamics, and change* (2nd ed.). New York, NY: Guilford Press.
- Mikulincer, M., Shaver, P. R., & Horesh, N. (2006). Attachment bases of emotion regulation and posttraumatic adjustment. In D. K. Snyder, J. A. Simpson, & J. N. Hughes (Eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health* (pp. 77–99). Washington, DC: American Psychological Association.
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion, 27*, 77–102. <https://doi.org/10.1023/A:1024515519160>
- Molero, F., Shaver, P. R., Ferrer, E., Cuadrado, I., & Alonso-Arbiol, I. (2011). Attachment insecurities and interpersonal processes in Spanish couples: A dyadic approach. *Personal Relationships, 18*(4), 617–629. <https://doi.org/10.1111/j.1475-6811.2010.01325.x>
- Monti, J. D., & Rudolph, K. D. (2014). Emotional awareness as a pathway linking adult attachment to subsequent depression. *Journal of Counseling Psychology, 61*, 374–382. <https://doi.org/10.1037/cou0000016>
- Moreira, H., Martins, T., Gouveia, M. J., & Canavarro, M. C. (2015). Assessing adult attachment across different contexts: Validation of the Portuguese version of the Experiences in Close Relationships – Relationship Structures Questionnaire. *Journal of Personality Assessment, 97*, 22–30. <https://doi.org/10.1080/00223891.2014.950377>
- Nelis, D., Kotsou, I., Quoidbach, J., Hansenne, M., Weytens, F., Dupuis, P., & Mikolajczak, M. (2011). Increasing emotional competence improves psychological and physical well-being, social relationships, and employability. *Emotion, 11*, 354–366. <https://doi.org/10.1037/a0021554>
- Novo, R. F., Duarte-Silva, M. E., & Peralta, E. (1997). O bem-estar psicológico em adultos: Estudo das características psicométricas da versão portuguesa das escalas de C. Ryff [The psychological well-being in adults: Study of the psychometric properties of the portuguese version of the Ryff's scale]. In M. Gonçalves, I. Ribeiro, S. Araújo, C. Machado, L. Almeida, & M. Simões (Eds.), *Avaliação Psicológica: Formas e Contextos* (pp. 313–324). Braga: APPORT.
- Overall, N. C., Fletcher, G. J., Simpson, J. A., & Fillo, J. (2015). Attachment insecurity, biased perceptions of romantic partners' negative emotions, and hostile relationship behavior. *Journal of Personality and Social Psychology, 108*, 730–749. <https://doi.org/10.1037/a0038987>
- Overall, N. C., & Lemay, E. P. (2015). Attachment and dyadic regulation processes. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment, theory, and research: New directions and emerging themes* (pp. 145–169). New York, NY: The Guilford Press.
- Paley, B., Cox, M. J., Burchinal, M. R., & Payne, C. C. (1999). Attachment and marital functioning: Comparison of spouses with continuous-secure, earned-secure, dismissing, and preoccupied attachment stances. *Journal of Family Psychology, 13*(4), 580. <https://doi.org/10.1037/0893-3200.13.4.580>
- Pascuzzo, K., Cyr, C., & Moss, E. (2013). Longitudinal association between adolescent attachment, adult romantic attachment, and emotion regulation strategies. *Attachment & Human Development, 15*(1), 83–103. <https://doi.org/10.1080/14616734.2013.745713>
- Peters, B. J., Overall, N. C., & Jamieson, J. P. (2014). Physiological and cognitive consequences of suppressing and expressing emotion in dyadic interactions. *International Journal of Psychophysiology, 94*, 100–107. <https://doi.org/10.1016/j.ijpsycho.2014.07.015>
- Pietromonaco, P. R., & Barrett, L. F. (2000). Internal working models: What do we really know about the self in relation to others? *Review of General Psychology, 4*, 155–175.
- Remen, A. L., Chambless, D. L., & Rodebaugh, T. L. (2002). Gender differences in the construct validity of the silencing the self scale. *Psychology of Women Quarterly, 26*(2), 151–159.
- Ryff, C. D., & Keyes, L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719–727. <https://doi.org/10.1037/0022-3514.69.4.719>
- Sadler, P., Ethier, N., & Woody, E. (2011). Tracing the interpersonal web of psychopathology: Dyadic data analysis methods for clinical researchers. *Journal of Experimental Psychopathology, 2*(2), 95–138. <https://doi.org/10.5127/jep.010310>
- Saxena, P., Dubey, A., & Pandey, R. (2011). Role of emotion regulation difficulties in predicting mental health and well-being. *Journal of Projective Psychology and Mental Health, 18*, 147–155.
- Saxena, P., & Mehrotra, S. (2010). Emotional disclosure in day-to-day living and subjective well being. *Psychological Studies, 55*(3), 208–218. <https://doi.org/10.1007/s12646-010-0034-1>
- Shaver, P. R., & Fraley, R. C. (2008). Attachment, loss, and grief: Bowlby's views and current controversies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (pp. 48–77). New York, NY: Guilford Press.
- Shaver, P. R., & Mikulincer, M. (2009). An overview of adult attachment theory. In J. H. Obegi & E. Berant (Eds.), *Attachment theory and research in clinical work with adults* (pp. 17–45). New York, NY: Guilford Press.
- Simpson, J. A., & Rholes, W. S. (2017). Adult attachment, stress, and romantic relationships. *Current Opinion in Psychology, 13*, 19–24. <https://doi.org/10.1016/j.copsyc.2016.04.006>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Pearson.
- Tan, R., Overall, N. C., & Taylor, J. K. (2012). Let's talk about us: Attachment, relationship-focused disclosure, and relationship quality. *Personal Relationships, 19*, 521–534. <https://doi.org/10.1111/j.1475-6811.2011.01383.x>
- Torquati, J. C., & Raffaelli, M. (2004). Daily experiences of emotions and social contexts of securely and insecurely attached young adults. *Journal of Adolescent Research, 19*, 740–758. <https://doi.org/10.1177/0743558403260023>
- Velotti, P., Balzarotti, S., Tagliabue, S., English, T., Zavattini, G. C., & Gross, J. J. (2016). Emotional suppression in early marriage: Actor, partner, and similarity effects on marital quality. *Journal of Social and Personal Relationships, 33*(3), 277–302.
- Waldinger, R. J., & Schulz, M. S. (2010). Facing the music or burying our heads in the sand?: Adaptive emotion regulation in midlife and late life. *Research in Human Development, 7*, 292–306. <https://doi.org/10.1080/15427609.2010.526527>
- Wei, M., Heppner, P. P., & Mallinckrodt, B. (2003). Perceived coping as a mediator between attachment and psychological distress: A structural equation modeling approach. *Journal of Counseling Psychology, 50*, 438–447. <https://doi.org/10.1037/0022-0167.50.4.438>

- Wei, M., Vogel, D. L., Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology, 52*, 14–24. <https://doi.org/10.1037/0022-0167.52.1.14>
- Winterheld, H. A. (2015). Calibrating use of emotion regulation strategies to the relationship context: An attachment perspective. *Journal of Personality*. Advance online publication. <https://doi.org/10.1111/jopy.12165>

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