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# Gender typical patterns and the link between alexithymia, dyadic coping and psychological symptoms



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# ABSTRACT

Prior research has identified associations between alexithymia, psychological symptoms, marital functioning and life satisfaction. However, less is known about the specific dynamics in the interplay of these associations, and other research suggests that such associations may differ depending on gender. The goal of this study is to investigate gender specific associations between alexithymia, symptoms of anxiety/depression, life satisfaction, and dyadic coping in a sample of 112 heterosexual couples. Using path analyses and extended applications of the actor–partner-independence model (APIM), results revealed significant associations between alexithymia, dyadic coping, and symptoms of anxiety/depression, as well as between dyadic coping and life satisfaction for women and for men. For women, the association between alexithymia and dyadic coping was mediated by alexithymia. For men the association between alexithymia, symptoms of anxiety/depression, life satisfaction, life satisfaction, and dyadic coping, and suggests that men and women may show different patterns of association.

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# 1. Introduction

Links between personality, interpersonal functioning, well-being, and life satisfaction have been well-documented. Dimensional constructs of personality traits have been shown to be associated with psychological (e.g. depression) as well as interpersonal outcomes (e.g. avoidance), particularly when individuals are exposed to stress (DeLongis & Holtzman, 2005). Less is known, however, about how these patterns extend to an individual's behavior in the context of their romantic relationship. Recent studies highlight the importance and benefit of dyadic interactive processes and resources when individuals cope with stress, and their significance for psychological well-being and life satisfaction (Bodenmann et al., 2008; Beach, Whisman, & Bodenmann, 2014), but the association between personality, dyadic coping, and well-being remains unclear. The aim of the present study is to investigate and specify gender typical links between alexithymia, symptoms of anxiety/depression, life satisfaction, and dyadic coping in couples by using extended applications of the actor-partner-independence model (APIM; Kenny, Kashy, & Cook, 2006).

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#### 1.1. Alexithymia

Alexithymia is a personality trait characterized by difficulties with identifying and verbalizing emotions. The definition of alexithymia includes three main criteria: 1) difficulties identifying feelings and distinguishing between feelings and the body sensations of emotional arousal, 2) difficulties verbalizing feelings to others, and 3) an externally oriented thinking style (e. g. Taylor, Bagby, & Parker, 1997). Higher levels of alexithymia have been associated with a range of somatic (e.g., asthma) and psychological (e.g. depression) symptoms (Foran & O'Leary, 2013; Taylor et al., 1997; Van Kerkhoven et al., 2006). The link between alexithymia and anxiety/depressive symptoms is especially well-established (e.g. Foran & O'Leary, 2013), and alexithymia has been associated with lower levels of life satisfaction in general (Mattila, Poutanen, Koivisto, Salokangas, & Houkamaa, 2007). Individuals with higher levels of alexithymia have also been characterized as having more interpersonal difficulties, including engaging in dysfunctional interpersonal behaviors such as avoidance, negativity and less empathy (e.g. Grynberg, Luminet, Corneille, Grèzes, & Berthoz, 2010; Inslegers et al., 2012). These impairments in interpersonal functioning also extend to the couple relationship, where higher level of alexithymia are related with higher levels of marital problems and lower levels of marital functioning (Epözdemir, 2012; Frye-Cox & Hesse, 2013). Building on this work, Foran and O'Leary (2013) showed that the associations between poor relationship functioning (intimacy, support, and

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satisfaction) mediated the link alexithymia and depression, underscoring the importance of studying the association between alexithymia and relational processes.

# 1.2. Dyadic coping

Dyadic coping is defined as emotion regulation and problem coping activities related to stress in couples (Bodenmann, Pihet, & Kayser, 2006). This concept includes stress communication as well as couple interactions to cope with this stress, which comprise partner support (assistance provided by one partner to the other partner) and common dyadic coping (shared coping actions). Partner support can be further divided into positive (supportive) and negative (hostile, ambivalent or superficial) dyadic coping. Research on dyadic coping indicates that positive dyadic coping serves as a protective factor for individual and couple well-being by decreasing stress (Bodenmann et al., 2008, 2006). Specifically, more positive and less negative dyadic coping have been associated with higher relationship functioning and life satisfaction, as well as with higher emotional well-being and lower depressive symptoms (Bodenmann et al., 2006, 2008; Gabriel, Bodenmann, & Beach, 2016).

## 1.3. Alexithymia and dyadic coping

Given the impairments associated with alexithymia, there are several reasons why dyadic coping is likely to be worse in individuals with higher levels of alexithymia. First, individuals with higher level of alexithymia are likely to have more difficulties understanding and explaining their own stress. As a result, they are likely to communicate their stress poorly to their partner, and in turn, receive less support and less efficient dyadic coping. Second, because of the interpersonal difficulties related to alexithymia, individuals with higher level of alexithymia should experience less empathy and understanding of their partner's stress, and thereby perform poorer dyadic coping in response to their partner's stress expression. To date, there has been limited research examining the association between alexithymia and dyadic coping in this manner. In previous work with this sample (Untas, Koleck, Bonnaire, & Idier, 2015), we investigated the association between different subscales of alexithymia and dyadic coping. This work indicated that higher levels of alexithymia were associated with lower stress communication and lower positive dyadic coping for each partner. The current study seeks to build on this work by examining the pattern of associations between total scores of alexithymia, psychological symptoms, dyadic coping, and life satisfaction.

## 1.4. The role of gender

We also consider whether the linkages between alexithymia, depression, and dyadic coping show unique patterns for men and women. First, there are noted gender differences in these variables. Levels of alexithymia are higher in men than women, and men are generally more externally thinking and problem-oriented, whereas women are more internally thinking, expressive, and emotion-focused (Croyle & Waltz, 2002; Levant, Hall, Williams, & Hasan, 2009). Women show a two times higher prevalence of depression and depressive symptoms in the context of marital dysfunctions or problems compared to men (Gabriel, Beach, & Bodenmann, 2010; Nolen-Hoeksema, 1990). Studies investigating dyadic coping indicate that men are more likely to respond to stress with active and problem-focused coping and are less emotional or socially oriented in their coping (e.g. Gabriel et al., 2016; McCall & Struthers, 1994). Women tend to be more emotion-focused and strongly social oriented for receiving assistance and support to cope with their own stress (Gabriel et al., 2010, 2016; Tamres, Janicki, & Helgeson, 2002). Furthermore, women also appear to be more affected by and engaged in the assistance for stress and coping processes of their partners, whereas men show a greater tendency to withdraw and to avoid higher stress expression of partners (e.g. Bodenmann et al., 2006; Gabriel et al., 2010; Neff & Karney, 2005).

There is also some research indicating that there are gender differences in the relations between these variables in the context of depression (e.g., Hagedoorn, Sanderman, Bolks, Tuinstra, & Coyne, 2008). Depressive symptoms and stress are significantly associated with higher negative emotion expression in women and higher avoidance in men (Bodenmann, Charvoz, Widmer, & Bradbury, 2004; Gabriel et al., 2010, 2016). With regard to depression and alexithymia, alexithymia was found to be a moderator in the association between depression and craving in an alcohol dependent sample, but the pattern differed by gender. In women, alexithymia increased the link between depression and craving, while in men, it reduced the link (Luminet, de Cordovil, Fantini, & de Timary, 2016). Taken together, these results suggest that the association between alexithymia, psychological symptoms, and dyadic coping may differ by gender.

# 1.5. Partner effects and couple correlation

The research reviewed thus far has focused on associations between one's own characteristics, behavior, and well-being (actor effects). There is also some evidence for associations between the two partners within a couple (couple correlations) (e.g. Foran & O'Leary, 2013). For example, in previous work, there were significant couple correlations (i.e., significant intercorrelations between the two partners within the couple) for depressive symptoms, dyadic coping, and life satisfaction (e.g., Bodenmann et al., 2004; Bodenmann et al., 2006). For depressive symptoms, significant within-couple correlation (e.g. Proulx, Buehler, & Heather, 2009) can be explained by direct effects such as transmission of negative mood states and by indirect effects through shared variances of depression-related couple outcomes.

There is also some evidence for partner effects, whereby one partner's functioning depends on the other partner's characteristics. Concerning alexithymia and partner effects, Foran and O'Leary (2013) found that, in addition to strong actor effects between one's own level of alexithymia and depressive symptoms, there was a significant partner effect between men's level of alexithymia and women's depressive symptoms, though not for women's alexithymia and men's level of depressive symptoms. Additionally, levels of alexithymia of both partners (men and women) were found to be significant intercorrelated with supportive positive dyadic coping in women (Untas et al., 2015). The current study builds on these works by considering actor and partner effects in the association between alexithymia, dyadic coping, symptoms of anxiety/depression, and life satisfaction.

# 2. Material and methods

# 2.1. Procedure

Couples were recruited at the University Bordeaux in France to complete a 20-minute questionnaire. Inclusion criteria for the study were an enduring couple relationship (>1 year), age (>18 years), and language (French).

## 2.2. Participants

A sample of 112 heterosexual middle-class couples met the inclusion criteria and completed the questionnaires. Mean age for men was 35.93 years (SD = 13.11, range: 19–66) and 34.37 years (SD = 12.67, range: 18–65) for women. Forty-two percent of the couples were married and average relationship duration was 11.63 years (SD = 10.49, range: 1–36). On average, couples had 1 child (M = 0.98, SD = 1.14, range: 0–4). Chi-square comparisons revealed a significant higher employment for men compared to women ( $\chi^2(7) = 20.07$ ,  $p \le 0.01$ ) but no significant gender differences in education level ( $\chi^2(4) = 5.36$ , *ns*.).

## 2.3. Measures

## 2.3.1. Dyadic Coping Inventory (DCI)

The DCI (Bodenmann, 2008) is a self-report measure of dyadic coping. Items are scored using Likert 5-point scales ranging from 1 (very rarely) to 5 (very often). The French adaptation has good psychometric properties (Ledermann et al., 2010). The total score (37 items;  $\alpha^1 =$ .87) includes perceptions of own and partner stress communication and dyadic support, and classifies couples with cut-off values in martially dissatisfied (DCI < 111), average satisfied ( $111 < DCI \ge 145$ ) and very satisfied (DCI > 145) couples (Gmelch et al., 2008).<sup>2</sup> To prevent a possible confounding of expression of emotions measured by alexithymia and dyadic coping, only the subscale including own and partner's dyadic support behavior was used for the study. This subscale (27 items,  $\alpha =$ .88) includes positive dyadic support (e.g. "I take on things that my partner would normally do in order to help him/her out"; "I show empathy and understanding"), negative dyadic support (e.g., "I blame my partner for not coping well enough with stress"), and common dyadic coping (e.g. "We try to cope with the problem together and search for ascertained solutions").

## 2.3.2. Toronto Alexithymia Scale (TAS-20)

The TAS-20 is the most widely used measure of alexithymia (Bagby, Parker, & Taylor, 1994a). It includes 20 items ( $\alpha = .78$ ) rated on 5-point Likert scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with total scores ranging from 20 to 100 points. The items load on three factors: a) difficulties identifying feelings (e.g., "when I am upset, I don't know if I am sad, frightened, or angry"); b) difficulties describing feelings (e.g., "I find it hard to describe how I feel about people"); and c) externally oriented thinking (e.g., "I prefer talking to people about their daily activities rather than their feelings"). The present study used a validated French translation (Loas, Otmani, Verrier, & Fremaux, 1997).

#### 2.3.3. Hospital Anxiety and Depression Scale (HADS)

The HADS (Zigmond & Snaith, 1983) is a widely used instrument measuring anxiety and depressive symptoms. The total score (14 items,  $\alpha = .73$ ) measures anxiety symptoms (e.g., "I feel tense or 'wound up''') and depressive symptoms (e.g., "I feel as if I am slowed down") on a 4-point scale. The French adaptation has good psychometric properties (Razavi, Delvaux, Farvacques, & Robaye, 1989).

## 2.3.4. Satisfaction with Life Scale (SWLS)

The SWLS (Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item selfreport measure of global life satisfaction ( $\alpha = .80$ ) (e.g. "In most ways my life is close to my ideal"). Items are rated on a 7-point Likert scale, with higher scores indicating higher life satisfaction. The French adaptation has good psychometric properties (Blais, Vallerand, Pelletier, & Brière, 1989).

Means and standard deviations for all variables are shown in Table 1.

# 3. Results

# 3.1. Analytic plan

Our analyses proceeded in separate steps. First, we examined whether men and women's scores differed for the different variables using repeated-measure ANOVAs for within couple effects. Second, we conducted Pearson correlations (2-tailed) to investigate associations between all variables separately for women and for men. Third, all significant correlations were entered in path analyses for women and

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Summary score, cut offs and within effects by gender.

Couple $N = 112$	Women		Men		
	М	SD	М	SD	F(1/111)
Alexithymia	48.14	10.84	49.72	10.45	1.54
Anxiety/depression	13.50	5.12	12.62	5.36	2.27
Life satisfaction	25.61	5.49	24.96	5.36	1.71
Dyadic support	100.60	15.33	99.05	12.74	1.18

\*p ≤ .05.

men using structural equation modeling (EQS 6.2, Bentler, 1985-2014). Fourth, based on the patterns of significant mediation from the path analyses, we conducted actor–partner-independence models (APIMs; Kenny et al., 2006) that allow for the examination of actor effects, partner effects, and tests of mediation. Actor effects indicate how much one person's behavior or dispositions predict their own behavior or distress, controlling for partner effects. Partner effects measure how much the partner's behavior or dispositions predict one's own behavior or distress, controlling for own actor effects. Because of the cross-sectional design of the study, all significant paths and effects in the models should be interpreted as bidirectional.

# 3.2. Within-couple differences

There were no significant gender differences for age (F(1/111) = 0.82, *ns.*), alexithymia (F(1/111) = 1.54, *ns.*), depression/anxiety (F(1/111) = 2.27, *ns.*), life satisfaction (F(1/111) = 1.71, *ns.*) or dyadic coping (F(1/111) = 1.97, *ns.*) (see Table 1).

## 3.3. Correlations

There were significant correlations between alexithymia, dyadic support, and anxiety/depression symptoms for women and for men (see Table 2). In addition, life satisfaction was significantly correlated with dyadic support (r = .24,  $p \le .05$ ), alexithymia (r = -.32,  $p \le .05$ ), and psychological symptoms (r = -.26,  $p \le .01$ ) in men, but only with dyadic support in women (r = .22,  $p \le .05$ ). Significant couple intercorrelations were found for psychological symptoms (r = .30,  $p \le .001$ ), dyadic support (r = .51,  $p \le .001$ ), life satisfaction (r = .53,  $p \le .001$ ), and alexithymia (r = .20, ns.).

#### 3.4. Path analyses

For women (Fig. 1.1) there were significant paths between alexithymia and symptoms of anxiety/depression ( $\beta = .32$ ,  $R^2 = 0.10$ ,  $p \le .05$ ), alexithymia and dyadic coping ( $\beta = -.21$ ,  $R^2 = 0.09$ ,  $p \le .05$ ), and dyadic coping and life satisfaction ( $\beta = .19$ ,  $R^2 = .09$ ,

Table 2
Correlations.

N = 112 couples	Alexithymia	Anxiety/depression	Dyadic coping	Life satisfaction
Alexithymia	.20*	.29**	25**	.02
Anxiety/depression	.35***	.30***	20*	14
Dyadic coping	19*	24**	.51***	.22*
Life satisfaction	19*	26**	.24*	.53***

*Note.* Correlation Pearson (2-tailed); *right side*: women; *left side*: men; *diagonal*: couple. \*\*\* $p \le .001$ , \*\* $p \le .01$ , \* $p \le .05$ .

<sup>&</sup>lt;sup>1</sup> All Coefficient alpha from this sample.

<sup>&</sup>lt;sup>2</sup> For men 22.3% were dissatisfied (DCl < 111), 69.7% were average satisfied (111  $\leq$  DCl  $\geq$  145) and 5.4% were very satisfied (DCl > 145). For women 24.1% were dissatisfied, 59.8% were average satisfied, and 12.5% were very satisfied.

 $p \leq .05$ ). The association between anxiety/depression and dyadic coping was no longer significant after accounting for alexithymia  $(\beta = -.17, ns.).$ 

For men (Fig. 1.2), there were significant paths between alexithymia and symptoms of anxiety/depression ( $\beta = .35$ ,  $R^2 = 0.12$ ,  $p \le .05$ ), anxiety/depression and dyadic coping ( $\beta = -.20$ ,  $R^2 = 0.07$ ,  $p \le .05$ ), and for anxiety/depression ( $\beta = -.22$ ,  $p \le .05$ ) and dyadic coping ( $\beta = -$ .19,  $p \le .05$ ) with life satisfaction ( $R^2 = 0.10$ ). The association between alexithymia and dyadic coping was no longer significant after accounting for anxiety/depression ( $\beta = -.11$ , ns.).

Model fit was tested by chi-square, comparative fit index (CFI), and root mean square error of approximation (RMSEA), and indicated a good model fit for women  $(\chi^2(2/111) = 1.66, ns., CFI = .97,$ *RMSEA* = 0.08) and for men  $(\chi^2(2/111) = 0.32, ns., CFI = 1.00,$ RMSEA = 0.00) (Fig. 1).

## 3.5. APIM

Because the path analyses suggested different mediation paths for women and men, 3 different APIMs were conducted. The first APIM (Fig. 2.1) examined whether alexithymia mediated the association between depression/anxiety and dyadic coping, which was suggested in the previous path analyses for women. The model had a good fit  $(\chi^2(12/100) = 0.11, ns., CFI = .95, RMSEA = 0.07)$  and confirms significant mediation for women, but not for men. In the second APIM (Fig. 2.2), we examined whether anxiety/depression mediated the association between alexithymia and dyadic coping, as suggested in the previous path analyses for men. The model fit was good ( $\chi^2(12/100) =$ 00.09,  $n_{s.}$ , CFI = .94, RMSEA = 0.07). The model indicated significant mediation for men, but not for women.

1.1. Path model for women





Goodness of fit:  $\chi^2(2/111) = 1.66$ , ns., CFI = .97; RMSEA = 0.08; \*p ≤ .05.

1.2. Path model for men



Note. Goodness of fit:  $\chi^2(2/111) = 0.32$ , ns., CFI = 1.00; RMSEA = 0.00 \*p ≤ .05.

There were no significant partner effects in Model 1 and only one significant partner effect between anxiety/depression in men and dyadic coping in women ( $\beta = -.20, p \le .05$ ) in Model 2 (Fig. 2). In Model 3, there were 2 significant partner effects between anxiety/depression of women and men ( $\beta = .28, p \le .05$ ) and anxiety/depression of men and dyadic coping of women ( $\beta = -.22, p \le .05$ ).

## 4. Discussion

In this study we examined associations between alexithymia, dvadic coping, anxiety/depression, and life satisfaction among men and women from heterosexual couples using path models and APIMs. We now summarize these results and consider their implications.

# 4.1. Associations between alexithymia, dyadic coping, psychological symptoms, and life satisfaction

Significant associations between alexithymia, dyadic coping, and psychological symptoms, as well as between dyadic coping and life satisfaction were found for both men and women. However, alexithymia and life satisfaction were significantly associated only for men, which differs from the previous study which documented this association among healthcare patients for both men and women (Mattila et al., 2007).

# 4.2. Gender differences

In a second step, path analyses and APIMs indicated that the way in which anxiety/depression, alexithymia, dyadic coping, and life satisfaction are associated varies for men and women (Figs. 1 and 2). For men, the association between alexithymia and dyadic coping was mediated by anxiety/depression. However, for women, the association between anxiety/depression and dyadic coping was mediated by alexithymia.

Although the cross-sectional nature of the data precludes directional conclusions, these results suggest that for men, alexithymia is associated with depression/anxiety symptoms, and in with dyadic coping, whereas for women depression/anxious symptoms are associated with alexithymia, and in with dyadic coping. Higher levels of alexithymia were associated with poorer dyadic coping, but this association was no longer significant when accounting for anxiety/depression (which was significantly associated with dyadic coping). This pattern also suggests that the link between anxiety/depression and dyadic coping for men was not simply a result of deficits in emotion regulations due to alexithymia. Moreover, in considering the significant partner effect for anxiety/depression in men and dyadic coping in women, dyadic coping may possibly be an additional resource to compensate for the negative impact of higher alexithymia on the psychological well-being.

For women, the findings indicated that psychological symptoms (anxiety/depression) were associated with higher levels of alexithymia, which in turn was associated with impaired dyadic coping. Because of the stable character of the trait variable alexithymia and the crosssectional design, these bidirectional associations these bidirectional could also be interpreted as suggesting that higher levels of alexithymia in women seem to be a serious impairment in the way they deal with emotions and a risk for symptoms of anxiety/depression (see also Luminet et al., 2016). In contrast to men, when confronted with stress, women are more likely to engage in emotion regulation strategies by expressing perceived emotions and searching for dyadic coping (e.g. Gabriel et al., 2016; McCall & Struthers, 1994;

2.1. Mediation of depression and dyadic coping by alexithymia



Goodness of fit:  $\chi^2(12/100) = 0.11$ , ns., CFI = .95, RMSEA = 0.07 \*p  $\leq .05$ ,





Note.

Goodness of fit:  $\chi^2(12/100) = 0.09$ , *ns.*, *CFI* = .94, *RMSEA* = 0.07 \*p  $\leq$  .05,

2.3. Mediations depending on gender



Goodness of fit:  $\chi^2(12/100) = 0.31$ , *ns.*, *CFI* = .99; *RMSEA* = 0.04 \*p ≤ .05,

Fig. 2. APIM for different mediation paths.

Tamres et al., 2002). For women, dyadic coping seems primarily to influence psychological outcomes by stimulating and assisting emotion regulation (perception and expression of emotions). Higher levels of alexithymia represent deficits in the way women usual cope with stress (by perceiving/expressing emotions and searching for support) and is therefore related to anxiety/depression and associated with a reduction in received and performed dyadic coping, and in with lower life satisfaction.

In addition, women's life satisfaction was correlated solely with dyadic coping, whereas men's life satisfaction was associated with dyadic coping, alexithymia, and anxiety/depression (see Fig. 1). These findings underscore the relative importance of dyadic stress regulation for women in particular for their overall life satisfaction.

# 4.3. Partner effects

Only one partner effect but high couple correlations for dyadic coping, depression, and life satisfaction in the APIMs were found in Model 1 and Model 2. The use of a dyadic coping subscale including coping behavior of both partners may explain the lack of partner effects between anxiety/depression and dyadic coping as well as dyadic coping and life satisfaction. Building on prior work (Foran & O'Leary, 2013), significant couple correlations were found for alexithymia. However, the significant partner effect for alexithymia in men on symptoms of anxiety/depression in women from this prior study was not replicated in our sample.

## 4.4. Limitation and future directions

There are several limitations of the study. First, the sample was a convenience sample of primarily middle class couples that utilized a cross sectional design. Future work should examine these linkages using a more distressed sample and a longitudinal design. Second, all variables were measured using questionnaires. It would be valuable to extend these findings using other types of assessment (e.g., observational rating of coping behaviors).

Notwithstanding these limitations, the results revealed interesting and important new knowledge about how alexithymia and dyadic coping are associated with psychological symptoms and life satisfaction. These findings suggest that gender and personality traits should receive more attention in research and treatments of psychological distress and marital dysfunction.

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