INTERPERSONAL EMOTION REGULATION AND COGNITIVE EMPATHY AS MEDIATORS BETWEEN INTRAPERSONAL EMOTION REGULATION DIFFICULTIES AND COUPLE SATISFACTION

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Abstract

The role of intrapersonal emotion regulation in couple satisfaction is well known, while the interpersonal emotion regulation's role has only scarcely been tackled. The few existing studies supported the role of interpersonal emotion regulation in couple, but no study has specifically assessed its effect on couple satisfaction. Likewise, it was found that cognitive empathy acts as a buffer between intrapersonal emotion regulation difficulties and hostility and positively correlates with couple satisfaction. However, no study investigated cognitive empathy as a mediator between intrapersonal emotion regulation and couple satisfaction. Moreover, no study assessed the mediator role of interpersonal emotion regulation between intrapersonal emotion regulation and couple satisfaction.

Based on what was known, we took a step further, and, in line with our hypotheses, it was found that (1) interpersonal emotion regulation partially mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction. (2) Cognitive empathy partially mediates the effect of intrapersonal emotion regulation on couple satisfaction. Moreover, (3) interpersonal emotion regulation and cognitive empathy sequentially mediate the effect of intrapersonal emotion regulation difficulties on couple satisfaction. Furthermore, the implications and limits of the present study are discussed and some directions for future studies are suggested.

*Keyword*s: couple satisfaction, intrapersonal emotion regulation, interpersonal emotion regulation, cognitive empathy

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Introduction

Couple satisfaction is often conceptualized as a multidimensional construct, including concepts such as conflict, positive or negative emotions, communication patterns, agreement on values, and has an important role in the mental and physical health of individuals (Vajda, 2015). For instance, researches show that people who are in an unsatisfactory relationship are more prone to develop depressive symptoms (Whitton & Kuryluk, 2012) and drinking problems (Khaddouma et al., 2016). Thus, it is important to better understand the factors affecting couple satisfaction, in order to design more efficient and accessible interventions.

Emotional regulation predicts couple satisfaction (Bloch, Haase, & Levenson, 2014), and couples with a low level of emotional intelligence have a significantly less positive relationship quality (Brackett, Warner, & Bosco, 2005). Dysfunctional emotion regulation strategies are also associated with the perception of hostile criticism (Klein, Renshaw, & Curby, 2016), hostility and personal distress (Contardi, Imperatori, Penzo, Del Gatto, & Farina, 2016). Regarding the target of the emotion regulation (one's own emotions or someone else's emotions), there are two approaches in the emotion regulation field (Reeck, Ames, & Ochsner, 2016). Intrapersonal emotion regulation refers to all the strategies a person applies to monitor, evaluate and modify their own affective state (Thompson, 1994). The second approach refers to interpersonal emotion regulation and it consists of all the strategies a person uses to deliberately influence someone else's affective state (Niven, 2017). Interpersonal emotion regulation has a prosocial component and a non-prosocial one, each of them including two factors (prosocial: Enhance, Divert; non-prosocial: Worsen, Inauthentic) (Austin & O'Donnell, 2013). The prosocial component comprises the strategies a person employs to improve somebody else's mood, and the non-prosocial component refers to the strategies used to worsen it (Austin & Vahle, 2016).

The relation between intrapersonal and interpersonal emotion regulation is not well understood. The integrative cross-disciplinary model (Reeck et al., 2016) integrates findings from psychology and neurosciences, and it shows the emotion regulation processes in consecutive sequences: 1. intrapersonal emotion regulation, 2. identification of target person's emotions and the need for regulation (cognitive empathy), 3. an interpersonal emotions regulation strategy is selected and implemented (Reeck et al., 2016). Likewise, Contardi et al. (2016) discovered that intrapersonal emotion regulation difficulties predict hostility, while cognitive empathy mediates the link between them (Contardi et al., 2016). Moreover, intrapersonal emotion regulation predicts prosocial behavior (Lockwood, Seara-Cardoso, & Viding, 2014). These findings are especially important as the Enhance component of interpersonal emotion regulation (Austin & O'Donnell, 2013) is seen as a prosocial behavior (Niven, 2017).

Enhance (mood enhancing) refers to the strategies a person uses to improve somebody else's emotions by using strategies, such as offering help and reassurance, showing understanding, allowing the others to manifest their emotions (Austin & O'Donnell, 2013). Enhancement is positively associated with agreeableness (the personality trait from Big-Five Model - Goldberg, 1992), Emotional Intelligence, Empathy and negatively with Machiavellianism, psychopathy, and neuroticism (Austin & O'Donnell, 2013; Austin & Vahle, 2016). Moreover, Enhance is positively associated with all six factors of HEXACO (honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness) (Austin & Vahle, 2016; Lee, & Ashton, 2004). In contrast, Divert, Worsen and Inauthentic correlate only with some of the HEXACO factors (Austin & Vahle, 2016). For instance, Divert, the other pro-social factor is significantly correlated only with extraversion factor (Austin & Vahle, 2016). This is important as the study of Sohrabi and Narimani, (2018) found that up to 34% of the variance of couple satisfaction scores is explained by the variance of HEXACO scores. Thus, Enhance might be the most relevant unique factor of interpersonal emotion regulation for couple satisfaction. However, no study has so far investigated the relationship between partner's mood enhancing on couple satisfaction.

Cognitive empathy refers to the ability to understand another person's point of view or to cognitively put oneself in the other's place (Busby & Gardner, 2008). Previous studies showed that cognitive empathy is associated with couple satisfaction (Busby & Gardner, 2008), but only a few of them investigated cognitive empathy in the couple context as a global quality by using self-reported measures (Péloquin & Lafontaine, 2010). Moreover, to the best of our knowledge, no study has investigated the mediator role of cognitive empathy between intrapersonal emotion regulation and couple satisfaction.

In the few existing studies, the importance of interpersonal emotion regulation in close relationships was demonstrated (Horn & Maercker, 2016; Klein et al., 2016; Levy-Gigi & Shamay-Tsoory, 2017). Thus, higher levels of abilities of interpersonal emotion regulation predict fewer symptoms of adjustment disorder in couple (Horn & Maercker, 2016) and a lower level of distress (Levy-Gigi & Shamay-Tsoory, 2017). However, there are no studies to research the link between interpersonal emotion regulation skills and couple satisfaction.

In sum, couple satisfaction is important for mental and physical health (Khaddouma et al., 2016; McLeod, 1994; Sw & Ad, 2012), and intrapersonal emotion regulation predicts couple satisfaction (Bloch et al., 2014). Even though interpersonal emotion regulation seems to play an important role in intimate relationships (Horn & Maercker, 2016; Klein et al., 2016; Levy-Gigi & Shamay-Tsoory, 2017), there is no study to research its effect on couple satisfaction. What is more, the research tackling the relationship between intrapersonal emotion regulation and interpersonal emotion regulation is still at an incipient stage (Niven, 2017; Reeck et al., 2016). Also, little is known about the role played by cognitive empathy concerning these two types of emotion regulation (Reeck et al., 2016).

Objectives

Our main objective was to test whether interpersonal emotion regulation and cognitive empathy mediate the effect of intrapersonal emotion regulation on couple satisfaction. In order to accomplish this, three mediation models were tested.

Based on previous studies, we derived the following hypotheses. (1) Interpersonal emotion regulation (enhancing the partner's emotions) mediates the relation between intrapersonal emotion regulation difficulties and couple satisfaction. (2) Cognitive empathy mediates the relationship between intrapersonal emotion regulation difficulties and couple satisfaction. (3) Cognitive empathy and interpersonal emotion regulation (enhancing partner's emotions) sequentially mediate the effect of intrapersonal emotion regulation difficulties on couple satisfaction.

Methods

Participants

G power analysis (Faul, Erdfelder, Lang, & Buchner, 2007) indicated a sample size of 119 for a medium effect size f^2 of .15, $\alpha = .05$, and the power (1-beta error probability) = .95. The participants were recruited via announcements on different Facebook groups. Most announcements were posted on the Facebook groups of college students in Romania's main cities. In the announcements, information about what participation in this study entails was provided, as well as a link to a google form where they could enroll. After enrolment, all participants received the scales via email within a week. One hundred ninety participants participated in the study. Demographic information is displayed in ***Table 1***. The average age was 21 years old (SD = 4.49) with an average length of the relationship of 27 months (SD = 31.32). Most of them were in a heterosexual relationship (95%), were students (78%), and only a few of them had children (4%).

Table 1. Demographic information.

		N
Sex	Female	149
	Male	41
Marital status	Unmarried	176
	Married	10
	Divorced	4
Cohabiting with the partner	Living together	130
	Living separately	58
Relationship type	Heterosexual	181
	Homosexual	7

		N
	High school	151
Education level	Bachelor's degree	30
	Master's degree	7
Occupational status	Student	148
	Full-time job	20
	Part-time job	9
	Student + full/part-time job	7
	Other	4
Parenthood status	No children	182
	With children	8
Mean age		21
Mean relationship length (months)		27

Measures

Demographic data. Participants had to fill in a questionnaire that regarded demographic information such as name, sex, age, phone number, marital status, number of children, the length of their marriage/relationship, the relationship type (heterosexual, homosexual), the last educational institution they graduated, and their occupational status.

Couple satisfaction. In order to assess couple satisfaction, the Couple Satisfaction Index (CSI; Funk and Rogge, 2007) was used. This is a 32-item self-report instrument, with answers, given on five types of Likert scale. Specifically, on the seven-point Likert scale, the amount of happiness with their relationship was expressed (0 - extremely unhappy; 1 - fairly unhappy; 2 - a little unhappy; 3 - happy; 4 - very happy; 5 - extremely happy; 6 - perfect). On the six-point Likert scale, the existing agreement between them and their partner was expressed (5 - always agree; 4 - almost always agree; 3 - occasionally disagree; 2 - frequently disagree; 1 - almost always disagree; 0 - always disagree). The scores range from 0 to 162 with larger scores indicating a greater couple satisfaction and the scores falling below 104.5 suggest notable relationship dissatisfaction. Sample items include "How often do you wish you hadn't gotten into this relationship? I sometimes wonder if there is someone else out there for me" (Funk & Rogge, 2007). In previous studies CSI showed convergent and construct validity and internal consistency, having a Cronbach's α of .98 (Funk & Rogge, 2007). For this study, α = .91.

Intrapersonal emotion regulation difficulties. Difficulties in emotional regulation scale (DERS; Gratz & Roemer, 2004) was used to assess the difficulties in intrapersonal emotion regulation. This is a 36 item self-report instrument, with answers given on a 5 point Likert scale which measures how often the sentence is true for themselves (1 - almost never; 2 - sometimes; 3 - about half the time; 4 - most of the time; 5 - almost always). This scale has 6 subscales, but a global score can also be calculated. Sample items include "I rarely worry about getting my anxieties, worries, and feelings under control; When I'm upset, I allow myself to feel that way" (Gratz & Roemer, 2004). High construct validity was proved by

computing the correlation between DERS and Negative Mood Regulation Scale (NMR; Catanzaro & Mearns, 1990). For this study, α = .93.

Interpersonal (in the partner) emotion regulation skills. Managing the Emotions of Others Scale (MEOS; Austin & O'Donnell, 2013) is a 65 item self-reported instrument. It has six factors, with the answers given on a five-point Likert scale in which the extent of agreement with each item is expressed (1 - strongly disagree, 2 - disagree, 3 - neither agree nor disagree, 4 - agree, 5 - strongly agree). Solely the 15 items from the mood enhancing (Enhance) factor were selected. In order to use it in the couple context, we replaced "someone'' with "my partner" and "them/their" with "him/her". Sample items include "When my partner is anxious about a problem, I try to help him/her work out a solution; If my partner is feeling anxious, I try to calm him/her down by talking with him/her" (Austin & O'Donnell, 2013) For this study, it had a Cronbach's α of .91.

Cognitive empathy in couple. Perspective Taking scale (PTS; Péloquin & Lafontaine, 2010) is a six-item scale which measures the tendency to spontaneously adopt the partner's psychological point of view. Sample items include "I try to look at my partner's side of a disagreement before I make a decision; I sometimes try to understand my partner better by imagining how things look from his/her perspective" (Péloquin & Lafontaine, 2010). For each item, the answer is given on a five-point Likert scale by expressing the extent to which the item describes his/her self (0 - does not describe me well; 4 - describes me very well). In addition, the concurrent validity, discriminant validity and internal consistency of the scale have been demonstrated (Péloquin & Lafontaine, 2010). For this study, α = .76.

Procedure

For the study enrolment, all participants had to sign the informed consent, in which information about the study and their rights as participants were provided. At this point, the demographic data were collected, as well as phone numbers and e-mail addresses. All the instruments were completed online, via e-mail. The participants who had not completed the scales in one week were given reminders. In the end, those who still did not complete the scales were given a phone call. After 190 people filled in the scales (the sample size recommended by G power analysis), the data were uploaded into Statistical Package for the Social Sciences – SPSS - (Preacher & Hayes, 2008) and statistical analyses were conducted.

Data analysis

Data screening has been conducted. It was checked whether the scores were in range and if there were any missing data. The mean values of variables were used to replace the missing scores from the same variable (Kang, 2013). Furthermore, for multidimensional outliers' detection, Mahalanobis distance was conducted, with no outlier found. At this point, assumptions for multiple regression

were tested. Skewness and Kurtosis were computed for normality assessment, and all four variables were in the accepted interval for a normal distribution (+/-2) (George, 2011). Assumption of linearity was investigated between each variable by visually inspecting the scatterplots of residuals, as Berry and Feldman (1985) suggested. No curvilinear relation was found between any variables. As a result, the assumption of linearity was met. As Tabachnick and Fidell (1996) suggested, homoscedasticity was assessed by visually inspecting the plot of the standardized residuals we obtained from the values predicted through linear regression. We found that residuals were evenly scattered around 0 (+2 to − 2), indicating that the assumption of homoscedasticity was met. Non-collinearity of the variables is supported by the fact that the correlation between them is not larger than .80 (see *Table 2*.)

The hypotheses were tested with models 4 and 6 from PROCESS v3.2.01 (Hayes & Preacher, 2013). PROCESS is a computational procedure for SPSS that implements moderation and mediation analysis separately but also combined in an integrated conditional model (Hayes, 2017). In this study, model 4 was employed twice. Model 6 is a serial multiple mediator model, and up to four mediators can be chained in sequence (Hayes, 2017). Thus, by employing model 6 (Bolin, 2014) a serial multiple mediation has been performed, with cognitive empathy in the couple (the first mediator) and interpersonal emotion regulation (the second mediator). Conventionally, the predictor is noted as X, the predicted variable as Y, and the mediator(s) as M (Hayes, 2017). PROCESS allows for direct effect (the effect of X on Y when controlling for M), indirect effect (the effect of X on Y mediated by M), and total effect (the sum of the indirect and direct effect of X on Y) calculation (Hayes, 2012). For the indirect effect investigation, a 95% bootstrap confidence interval was computed. If the 95% bootstrap confidence interval does not include 0, the indirect effect is considered statistically significant (Cheung & Lau, 2008).

Results

Eleven percent of the participants had missing data. In order to assess if there were any differences between those with and without missing data, one-way ANOVA was performed. No significant differences were found (Couple satisfaction, $p = .578$; intrapersonal emotion regulation, $p = .421$; interpersonal emotion regulation, $p = .599$; cognitive empathy, $p = .913$). The participants with missing data on three variables were excluded (5% of participants). For the others (6% of the participants), we replaced the missing scores with the means of that variable.

Correlations between variables are reported in Table 2. Intrapersonal emotion regulation difficulties correlate negatively with couple satisfaction, interpersonal emotion regulation in couple (Enhance) and cognitive empathy. Couple satisfaction correlates positively with interpersonal emotion regulation in couple (Enhance) and cognitive empathy in couple. Cognitive empathy in couple correlates positively with interpersonal emotion regulation in couple (Enhance).

Table 2. Zero-order correlation between the study's variables.

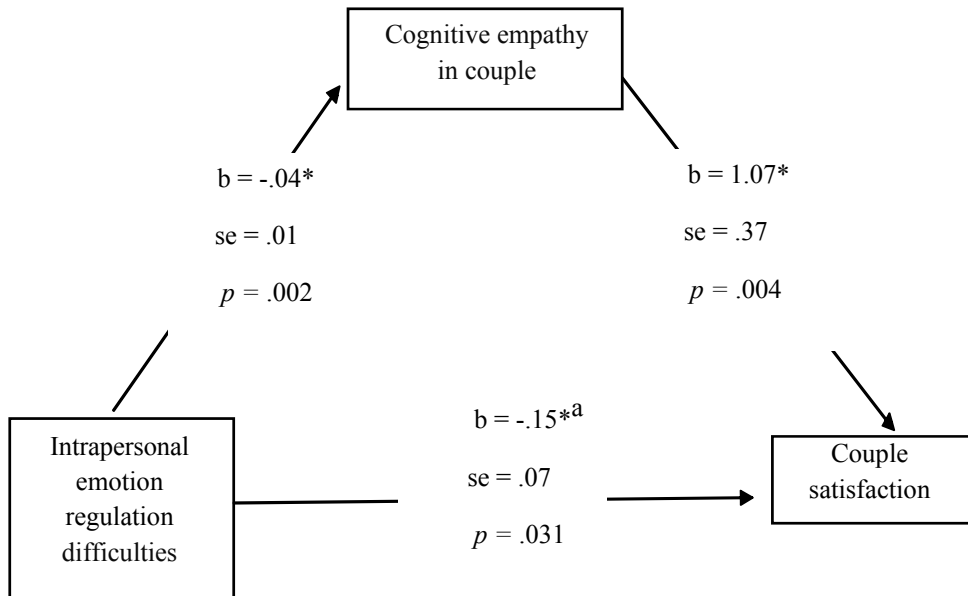|	1	2	3	4
1. Couple satisfaction	-			
2. Intrapersonal emotion regulation difficulties	- .20**	-		
3. Cognitive empathy in couple	.28**	-.21**	-	
4. Interpersonal emotion regulation in couple (Enhance)	.36**	-.16*	.35**	-

*Note: *p* <.05. **p* < .01*

We tested three mediation models by using PROCESS in SPSS. Firstly, we tested whether interpersonal emotion regulation (Enhance) mediates the effect of intrapersonal emotion regulation on couple satisfaction (Figure 1.). The total effect of intrapersonal emotion regulation difficulties on couple satisfaction was significant (b = - .19; se = 06; *p* = .006). The direct effect of intrapersonal emotion regulation difficulties on couple satisfaction was significant (*p* < .036) and the indirect effect (through interpersonal emotion regulation in couple) of intrapersonal emotion regulation difficulties on couple satisfaction (b = - .05; 95% CI -.117 to -.006) was significant as well. Thus, interpersonal emotion regulation in couple (Enhance) partially mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction.
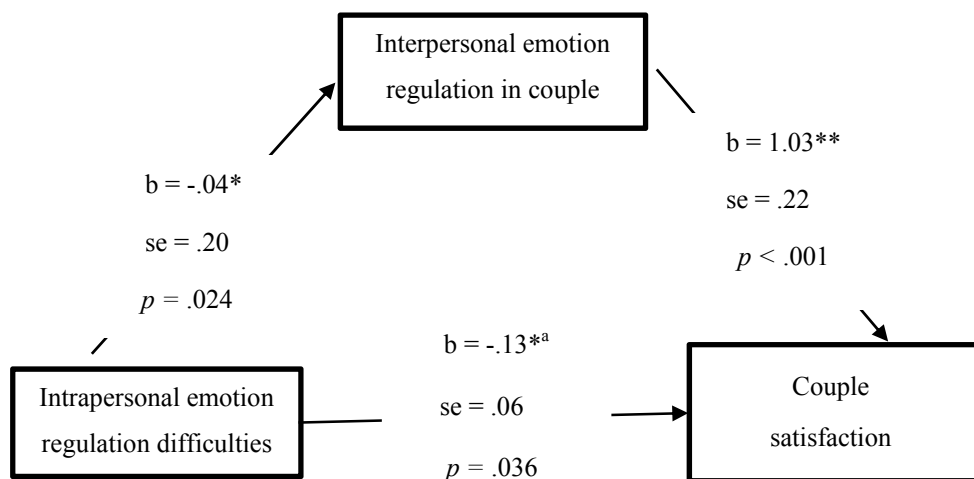
*Note: *p* <. 05; **p* <. 001; a - the direct effect*

Figure 1. The mediator role of interpersonal emotion regulation between intrapersonal emotion regulation difficulties and couple satisfaction.

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Furthermore, we tested cognitive empathy in couple as a mediator of the effect of intrapersonal emotion regulation difficulties on couple satisfaction (***Figure 2***). Intrapersonal emotion regulation difficulties has a significant total effect on couple satisfaction (b = -.19; se = 06; p = .004), and a significant direct effect as well (p = .031). There is also an indirect significant effect (b = - .04; 95% CI -.005 to -.001). Cognitive empathy in couple partially mediates the effect of intrapersonal emotion regulation on couple satisfaction.

Cognitive empathy in couple

b = -.04*

se = .01

p = .002

b = 1.07*

se = .37

p = .004

Intrapersonal emotion regulation difficulties

b = -.15*[a]

se = .07

p = .031

Couple satisfaction

Note: *p<.05; a - the direct effect.

Figure 2. The mediator role of cognitive empathy in couple between intrapersonal emotion regulation and couple satisfaction.

Finally, we tested a sequential regression model (Figure 3.) in which both interpersonal emotion regulation in couple and cognitive empathy in couple mediate the effect of intrapersonal emotion regulation difficulties on couple satisfaction. The total effect of intrapersonal emotion regulation difficulties on couple satisfaction was significant (b = -.19; se = 06; p = .006) the direct effect was no longer significant (p = .057). The only significant mediation path in the regression model was the sequential mediation (through cognitive empathy in couple and interpersonal emotion regulation in couple) of the effect of intrapersonal emotion regulation difficulties on couple satisfaction.
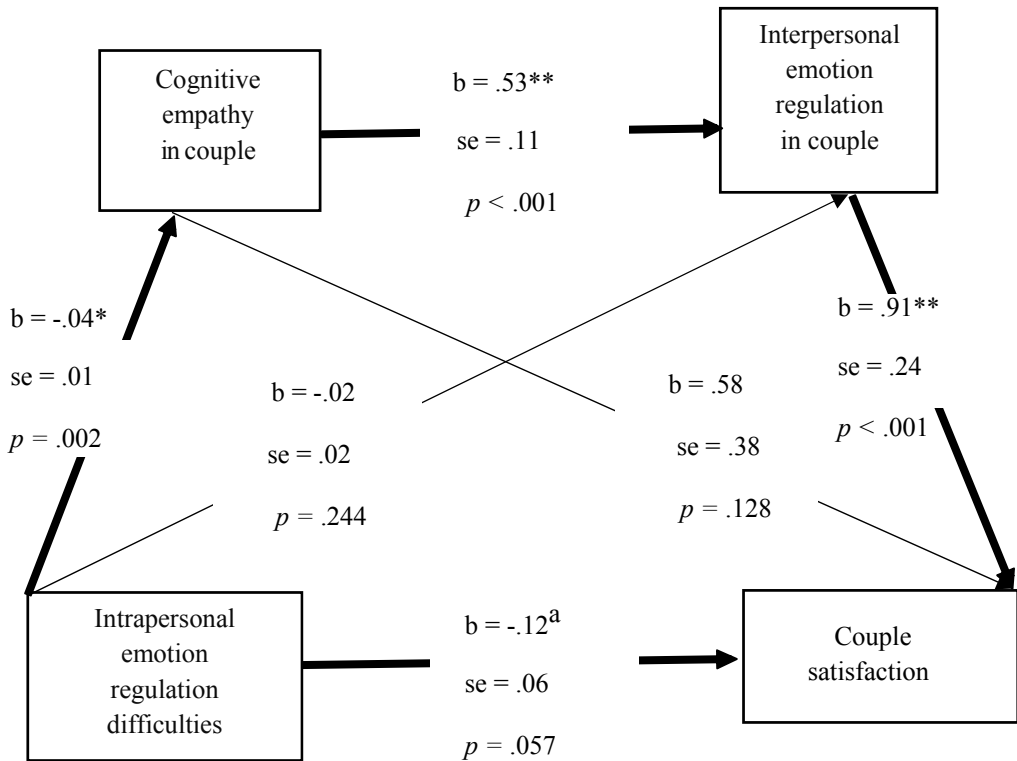
Note: **p < .05; **p < .001; a - the direct effect*

Figure 3. The sequential mediation effect of both interpersonal emotion regulation and cognitive empathy between intrapersonal emotion regulation difficulties and couple satisfaction.

Discussion

Our first finding was that interpersonal emotion regulation in couple partially mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction. This result is partially in accord with Lebowitz and Dovidio (2015), who showed that intrapersonal emotion regulation strategies predict social attitudes and helping behavior. Thus, since enhancing is seen as a prosocial component of interpersonal emotion regulation (Austin & O'Donnell, 2013), intrapersonal emotion regulation was expected to predict the enhancing component of interpersonal emotion regulation as it does for other prosocial behaviors (Lebowitz & Dovidio, 2015). In this respect, the present study takes a step further and shows that intrapersonal emotion regulation difficulties predict the Enhance component of interpersonal emotion regulation as well. Moreover, it was showed that interpersonal emotion regulation in couple partially mediates the effect of intrapersonal emotion regulation on couple satisfaction.

The second finding was that cognitive empathy partially mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction. This finding is in accord with previous studies (Contardi et al., 2016), showing that cognitive empathy mediates the effect of intrapersonal emotion regulation difficulties on hostility. Thus, high levels of intrapersonal emotion regulation difficulties lead to less hostility if the level of cognitive empathy is higher (Contardi et al., 2016). We expected and showed that the level of cognitive empathy mediates the effect of intrapersonal emotion regulation on couple satisfaction. Thereby, this study, to the best of our knowledge, is the first to show that cognitive empathy in couple mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction.

Our third finding was that cognitive empathy and interpersonal emotion regulation sequentially mediate the effect of intrapersonal emotion regulation on couple satisfaction. This result is in congruence with Reeck et al. (2016)'s model. Intrapersonal emotion regulation predicts the identification of partner's emotions (cognitive empathy) which predicts interpersonal emotion regulation that predicts couple satisfaction. The novelty of our study is that it brings some evidence into supporting Reeck et al. (2016)'s model and helps with the understanding of how these three constructs interact to affect couple satisfaction.

As far as we know, this is the first study to investigate the effect of interpersonal emotion regulation in couple (Enhance) on couple satisfaction. The previous studies on interpersonal emotion regulation in couple have been concerned with the effectiveness of interpersonal emotion regulation in negative emotion reduction and on mental health (Horn & Maercker, 2016; Levy- Gigi & Shamay-Tsoory, 2017). Furthermore, this study is one the few to investigate intrapersonal and interpersonal emotion regulation and tries to test three mediation models and to fill in the gap in literature concerning intra- and interpersonal emotion regulation (Austin & O'Donnell, 2013; Horn & Maercker, 2016; Levy-Gigi & Shamay-Tsoory, 2017; Reeck et al., 2016; Zaki & Williams, 2013). While some studies tackle intrapersonal and interpersonal emotion regulation in the couple context (Horn & Maercker, 2016; Levy-Gigi & Shamay-Tsoory, 2017), this is the first one to research how these types of emotion regulation interact and affect couple satisfaction. Another novelty is that we modified MEOS (Austin & O'Donnell, 2013) to measure interpersonal emotion regulation in the couple context.

This study has some limitations as well. Firstly, the average age of the participants was 21 years old, and the average length of the relationship was around 2 years. Therefore, the result of the study should be interpreted with caution, because there are some studies (Carstensen, Gottman, & Levenson, 1995; Gross et al., 1997) which found that age matters in emotion regulation. Compared with younger people, older people expressed fewer negative emotions and better emotion regulation (Gross et al., 1997). Likewise, the emotional behavior expressed by couples differs, depending on age (Carstensen et al., 1995). Thereby, future studies should aim to replicate our findings on a more heterogeneous sample.

Another limit is that we only measured a factor of interpersonal emotion regulation (Enhancing) (Austin & O'Donnell, 2013). Therefore, the result of this study is showing how a component of interpersonal emotion regulation fits the model, rather than answering the question of how interpersonal emotion regulation (in general) fits the model. Only the enhancing factor of interpersonal emotion regulation was used because it is the factor that correlates the best with agreeableness, emotional intelligence, and empathy (Austin & O'Donnell, 2013; Austin & Vahle, 2016) and it was expected to play an important role in couple satisfaction as well.

In order to fully establish the mediator role of interpersonal emotion regulation, future studies should comprehensively measure interpersonal emotion regulation. According to Austin & O'Donnell (2013) besides Enhance factor, interpersonal emotion regulation includes other factors such as divert, worsen and inauthentic. Therefore, future studies should test how each interpersonal emotion regulation factor, as well as interpersonal emotion regulation as a whole, mediate intrapersonal emotion regulation difficulties' effect on couple satisfaction. Studies that would go in this direction may find which interpersonal emotion regulation factor is the best mediator of intrapersonal emotion regulation difficulties on couple satisfaction, and which one best predicts couple satisfaction. In this regard, it would be extremely interesting to study the mediator role of worsen factor, as opposed to Enhance factor.

Another promising future direction would be to test interpersonal emotion regulation based programs for couple satisfaction improvement. Unsurprisingly, interpersonal emotion regulation understanding being in its infancy, to the best of our knowledge, there is no study to propose an interpersonal emotion regulation centered program for couple satisfaction. This direction may be fruitful, especially as the present study showed that interpersonal emotion regulation predicts couple satisfaction and partially mediates intrapersonal emotion regulation effect on couple satisfaction. Therefore, interpersonal emotion regulation centered programs could represent a direction for designing more effective couple interventions.

Conclusion

Intrapersonal emotion regulation and interpersonal emotion regulation represent two directions in the field of emotion regulation. Whereas intrapersonal emotion regulation received most of the attention, fewer aspects of the role of interpersonal emotion regulation in couple are known. Different approaches to intrapersonal emotion regulation demonstrated its role in couple satisfaction (Bloch, Haase, & Levenson, 2014), but no study has tested the role of interpersonal emotion regulation in couple satisfaction. However, the few existing studies established that interpersonal emotion regulation plays an important role in couple functioning (Horn & Maercker, 2016; Klein et al., 2016; Levy-Gigi & Shamay-Tsoory, 2017). High levels of intrapersonal emotion regulation difficulties predict

hostility, while cognitive empathy mediates the link between them (Contardi et al., 2016). Besides, cognitive empathy positively correlates with couple satisfaction (Busby & Gardner, 2008). Even though previous studies tackled the relation between cognitive empathy and intrapersonal emotion regulation, there was no study to assess the mediator role of cognitive empathy between intrapersonal emotion regulation and couple satisfaction. Although interpersonal emotion regulation and couple satisfaction are related constructs (Reeck et al., 2016), paradoxically no study investigated the relationship between them.

Considering the existing gaps in the literature, the present study aimed to test the mediator role of interpersonal emotion regulation and cognitive empathy between intrapersonal emotion regulation difficulties and couple satisfaction. We hypothesized that (1) interpersonal emotion regulation predicts couple satisfaction; (2) interpersonal emotion regulation mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction; (3) cognitive empathy (in couple) mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction; (4) and cognitive empathy and interpersonal emotion regulation sequentially mediate the effect of intrapersonal emotion regulation difficulties on couple satisfaction. The data was in line with all four hypotheses.

Our findings were in line with what we expected and with other researches from the field. This study, beyond what was known from previous studies, showed that interpersonal emotion regulation predicts couple satisfaction and mediates independently, as well as sequentially (along with cognitive empathy) the effect of intrapersonal emotion regulation difficulties on couple satisfaction. Likewise, cognitive empathy partially mediates the effect of intrapersonal emotion regulation difficulties on couple satisfaction. Because interpersonal emotion regulation researches are in their infancy, the present study has theoretical and practical implications alike. The study's limits are related to the sample's representativity and the lack of a comprehensive measure of interpersonal emotion regulation. Future studies should try to replicate this study's findings on other samples and measure interpersonal emotion regulation more comprehensively. Designing and testing an interpersonal emotion regulation and cognitive empathy-based intervention for couple may be a fruitful research direction.

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