Investigating the Different Roles of Avoidant and Anxious Attachment on Psychological Well-Being Mediated by Interpersonal Emotion Regulation

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Abstract

Attachment has a big influence on the wellbeing of people. Insecure attachment reinforces maladaptive emotion regulation strategies, and in turn contributes to the decrease of well-being. Contrary, secure attachment leads to adaptive emotion regulation and better well-being. The focus of past literature on emotion regulation lays on intrapersonal strategies, while interpersonal strategies also play a role in the relationship between attachment and wellbeing. Therefore, the study aimed to investigate if Interpersonal Emotion Regulation (IER) mediates the relationship between attachment and well-being. In specific, it was examined whether anxious and avoidant attachment had different effects on wellbeing. It was hypothesized that avoidant attachment is negatively associated with well-being and that the relationship is mediated by IER, and that anxious attachment is negatively associated with well-being and that the relationship is mediated by IER. Therefore, an online survey was conducted with adults as participants. Scales assessing adult attachment, IER, social contexts of IER, and psychological well-being were used. The results showed no mediating effect of IER between anxious or avoidant attachment and well-being. Yet, a positive correlation between anxious attachment and well-being was found. Additionally, control variables of social contexts were positively associated with IER. The findings give insight into the mechanisms of IER, yet future investigations are needed, as their findings could provide important insights for therapeutic interventions.

Keywords*: attachment, anxiety attachment, avoidance attachment, emotion regulation, interpersonal emotion regulation, well-being*

Investigating the Different Roles of Avoidant and Anxious Attachment on Psychological

Well-Being mediated by Interpersonal Emotion Regulation

Just as humans need water and food to survive, attachment poses as another basic human need. Evolutionary, it is theorized that attachment is a naturally selected survival phenomenon that ensures that vulnerable offspring survives to adulthood, because staying close to parents provides protection and promotes survival (Simpson & Rholes, 2017). Additionally, attachment serves the psychological function to reduce distress. An influential attachment theory is from Bowlby (1973), who describes that a good bond between parents and their children is vital for infants to properly develop emotionally and socially as they grow up. Generally, Bowlby (1973) only focuses on the attachment of children. As children grow up into adults, a shift in attachment figures takes place from only caregivers to the inclusion of friends and romantic partners, which establishes adult attachment styles (Hazan & Shaver, 1994).

Adult attachment styles present themselves in the two dimensions of avoidance and anxiety. Avoidance represents how comfortable individuals are with closeness and emotional intimacy in a relationship. The dimension of anxiety evaluates the extent to which an individual worries about being underappreciated or deserted by their partners (Simpson & Rholes, 2017). Within the two dimensions, an adult can either be securely or insecurely attached. An archetypal secure adult exhibits low levels in avoidance and anxiety, as they are comfortable with intimacy and have a positive view of themselves and others (Cyranowski et al., 2002). Meanwhile, an insecure adult can fall into one of the three subtypes: Dismissive, preoccupied, and fearful avoidant (Cyranowski et al., 2002). Dismissive attachment includes highly avoidant adults, which think of themselves as capable but see others as untrustworthy and rejecting. Adults high on the anxiety dimension fall into the subtype of preoccupied

attachment. They have a negative view of themselves, but hold a positive perception of others. The last subtype of fearful avoidant attachment is characterized by both high anxiety and high avoidance. Fearful avoidant adults combine the negative view of themselves and others; They see themselves as unlovable, and others as untrustworthy (Cyranowski et al., 2002). The importance of secure and insecure adult attachment is not only shown with its clear impact on the quality of relationships but also through its influence on psychological well-being (Carlson, 1998).

While secure attachment is a key factor in maintaining mental well-being (Cyranowski et al., 2002), insecure attachment can negatively impact well-being by posing as a risk factor for experiencing psychopathology (Carlson, 1998). Insecure attachment predicts levels of depression (Spruit et al., 2019), while dismissive attachment specifically, is positively associated with anxiety (Warren et al., 1997). In summary, insecurely attached people have higher levels of negative affect and stress, as well as lower positive affect, in comparison to securely attached people (Sheinbaun et al., 2015). These findings indicate that attachment styles influence positive and negative emotions, and thus, might relate to emotion regulation.

Emotion regulation can be defined as "complex processes that identify, experience, modulate and express emotions" (Bryant, 2015). A strong relationship between attachment and emotion regulation exists (Thompson & Meyer, 2007). In specific, securely attached individuals show stronger and more adaptive emotion regulation strategies compared to insecurely attached individuals (Ozeren, 2021). Insecure attachment negatively alters emotion regulation by diminishing the opportunity of adaptively regulating emotions (Gross, 2014). Avoidance is correlated with deactivating strategies, in which an individual feels inclined to avoid intimacy, negative emotions and fear. Instead, avoidant individuals focus on staying

independent and self-reliant (Mikulincer et al., 2003). Thus, highly avoidant individuals aim to emotionally distance themselves (Marganska et al., 2017). Contrary, anxiety is correlated with hyperactivation, in which an individual seeks out closeness, care and reassurance from their attachment figure, mostly their romantic partner, and can thus be perceived as needy and clingy (Simpson & Rholes, 2017). High anxiety in attachment is correlated with more intense negative emotions. Insecure attachment, which consists of high avoidance and/or high anxiety, favors the use of maladaptive emotion regulation strategies (Mikulincer & Shaver, 2019). Individuals with both high levels of avoidance and anxiety often fall back on using others to regulate their emotions for them, implying an interpersonal process of emotion regulation (Hofmann, 2014).

Emotion regulation is often presented as an intrapersonal process, in which individuals regulate their own emotions. Nevertheless, the social context of an individual is essential in determining how they perceive emotions (Zaki & Williams, 2013). People therefore, do not only independently regulate their emotions, but also use the help of others (Gross, 1998). This fundamental process is called Interpersonal Emotion Regulation (IER; Hoffmann et al., 2016). IER can be distinguished into four factors: "enhancement of positive affect", "perspective taking", "soothing," and "social modeling" (Hofmann et al., 2016). Enhancement of positive affect describes an inclination to seek out others in order to intensify happiness. Perspective Taking can be described as using others to point out that there is no need to worry or how the situation could be worse. Soothing describes the need to seek comfort and sympathy from another person. Lastly, Social Modeling represents taking the way others deal with their emotions or situations into account (Hofmann et al., 2016). The predominant purpose of using IER strategies is to reduce negative affect and to try to increase all positive emotions (Zaki & Williams, 2013).

Evidently, emotion regulation is affected by both inter- and intrapersonal strategies. However, the major focus on emotion regulation research is on intrapersonal factors (Hoffmann, 2014), thus the concept of IER has not been studied extensively. IER strategies are used daily (Battaglini et al., 2023) and effect the well-being of an individual (Cheung et al., 2015). Nevertheless, it is not conclusive whether it has a positive or negative affect, as literature shows contradictory findings. IER can increases chances of psychopathology and is positively associated with depression and anxiety (Hofmann et al., 2016). Specifically, the IER strategy of soothing was positively correlated to psychopathology (Gökdag & Naldöken, 2020), in which the strongest association can be found with social anxiety (Akkus & Peker, 2021). Not only does soothing predict adverse well-being, but also indicates a tendency to internalize problems (Chan & Ravana, 2021). Opposing research shows that IER is often used to reduce negative affect in an attempt to try and increase positive emotions (Zaki & Williams, 2013). Additionally, higher use of IER strategies was related to higher well-being and better mood compared to less IER (Horn & Maercker, 2016; Niven et al., 2015). Enhancement of positive affect and perspective taking can decrease emotional distress (Marroquin et al., 2017). The strategy of perspective taking was negatively associated with social anxiety and positively related to well-being and low levels of internalization of problems (Chan & Rawan, 2021). Conclusively, literature shows contradictory findings in which IER can be beneficial or detrimental to an individual's well-being, which is also the case in adult attachment.

Secure and insecure attachment styles directly affect whether emotions are regulated adaptively or maladaptively (Gross, 2014). Consequently, attachment styles could affect to what extent IER is used as well. Specifically, highly avoidant attachment is characterized by emotional distancing and reduced utilization of IER strategies (Read et al., 2018), which are both associated with poorer well-being. Conversely, individuals with a high level of anxious

attachment actively seek out interpersonal connections (Simpson & Rholes, 2017) and, logically, are more inclined to employ IER strategies, such as soothing (Scott et al., 2013), while both are associated with poor well-being. Therefore, attachment could indirectly influence well-being through IER, which in turn has been associated with well-being (Niven et al., 2015). One study that investigated this mediation model is of Gökdag (2021). The findings suggest that IER strategies are influenced by attachment styles, and in turn effect levels of psychological distress. Concretely, Gökdag (2021) found that the IER strategy of soothing mediates the relationship between attachment anxiety and depression, anxiety and stress.

In sum, most research on emotion regulation focuses on intrapersonal strategies, but few research takes interpersonal regulation into consideration, despite its impact on psychological well-being (Akkus & Peker, 2021; Horn & Maercker, 2016). Moreover, there is no consensus in the literature, as IER factors seem to have different effects on mental well-being, with soothing being generally negatively associated with well-being (Gökdag & Naldöken, 2020) and perspective taking positively (Chan & Rawana, 2021). Previous research has primarily focused on examining secure attachment in contrast to insecure attachment (Jinyao et al., 2012; Spruit et al., 2019; Sheinbaum et al., 2015). However, it is crucial to consider adult attachment as comprising both the anxious and avoidant dimension due to their contrasting interpersonal characteristics (Read et al., 2018). By distinguishing between these two dimensions of attachment and subsequently examining secure versus insecure attachment within each dimension, researchers can gain valuable insights. Consequently, understanding the underlying mechanisms between attachment, IER and well-being could provide valuable information for interventions. For example, if a highly avoidant individual uses less IER, and in turn suffers from psychological distress, improving their IER strategies could decrease their distress.

Thus, the research question is: Does Interpersonal Emotion Regulation mediate the relationship between attachment and psychological well-being? The goal of the study is to add to the little literature on interpersonal emotion regulation, explore the disparity on the effects of IER on well-being and most importantly explore if IER poses as a mediator between attachment and well-being. Attachment is examined within a comprehensive model as both a direct and indirect predictor of well-being. However, to gain a proper understanding of attachment dynamics, a differentiation between the anxiety and avoidance dimensions of attachment is made. First, it is hypothesized that avoidant attachment is positively associated with poor well-being and that this relationship is mediated by IER. Based on the literature (Hofmann et al., 2016; Read et al., 2018; Warren et al., 1997), it is expected that a high level of avoidant attachment is correlated with low IER usage and in turn with poorer well-being compared to low avoidance levels. The second hypothesis is that anxious attachment is positively associated with poor well-being and that the relationship is mediated by IER. Based on the literature (Hofmann et al., 2016; Simpson & Rholes, 2017; Spruit et al., 2019), it is expected that a higher level of anxious attachment is correlated with more IER usage and in turn with poorer well-being compared to low levels of anxious attachment.

Methods

Research Design

In order to investigate whether IER has an effect on the relationship between adult attachment and well-being, a quantitative study design was used. As the study took place, while Covid-19 restriction, such as social distancing, were still in effect, an online survey was conducted using a within-subjects design. The dependent variable was psychological well-being. The independent variables were anxious attachment and avoidant attachment and the

mediator consisted of IER. Additionally, the control variables of social contexts, including parents, partners and friends, were added.

Participants

In total, 115 participants took part in the online survey and were collected via convenience sampling, mainly from the network of the researcher. After controlling for exclusion criteria, 70 were eligible for analysis. 9 participants were excluded as they gave consent but did not fill out any demographical data or questionnaires, 15 individuals only gave demographical data but did not fill out the questionnaires and 21 participants were excluded due to only partially filled out questionnaires. Inclusion criteria consisted of being 18 years old or older, giving consent and filling out every questionnaire. Out of the 70 eligible participants, 33% were male, 63% female and 4% identified as non-binary/third gender. The age of participants ranged from 18 to 54 years with a mean age of 28 years ($M = 27.76$; $SD = 8.15$). Additional demographical data can be found in table A1. Participants were given the option to stop the survey at any given point with no repercussions.

Materials

For the measurement of psychological well-being, the shortened Depression Anxiety Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995) and the Satisfaction with Life Scale (SWLS; Diener et al., 1985) were used. The DASS-21 includes subscales for depression, anxiety and stress, which all together represent psychological wellbeing. The scale consists of 21 statements, measured on a 4-point Likert Scale from 0 (=not applied to me at all) to 3 (=applied to me very much). Higher scores represent more severe levels of anxiety, depression and stress. The DASS-21 is a valid and reliable instrument and showed internal consistency of $\alpha = .82$ for the stress subscale, $\alpha = .81$ for the anxiety subscale and $\alpha = .90$ for the depression subscale in this study. Additionally, it has a very high test- retest reliability of

.99 (Coker et al., 2018). The SWLS consist of five statements measured on a 7-point Likert Scale. The scale ranges from 1(= strongly disagree) to 7 (= strongly agree). Higher scores indicate a higher satisfaction with life. Total scores consist of the sum up of scores on each item and they vary between extremely dissatisfied (scores 5-9), neutral (score 20) to extremely satisfied (scores 31-35). The SWLS showed very good internal consistency with Cronbach's α = .87 in the current study and has shown good test-retest reliability of .82 in the past (Magyar-Moe, 2009).

To assess Interpersonal Emotion Regulation, the Interpersonal Emotion Regulation Questionnaire (IERQ; Hoffman, 2016) was used. The questionnaire consists of 20 items across four subscales. Each subscale contains five items. The subscales are: enhancing positive affect, perspective taking, soothing and social modeling. Participants rated to which extent each item applies to them, which is measured on a 5-point Likert Scale from 1 (=not true for me at all) to 5 (=extremely true for me). The higher the score, the greater the use of that particular emotion regulation strategy. The internal consistency of the IERQ in this study averaged to α = .89, with Cronbach's α ranging from .87 for enhancement of positive effect and perspective taking, .94 for soothing and finally to .89 for social modeling.

To control for different social contexts, participants were asked to rate to what extent the statements from the IERQ related to each social context (see Appendix B). The question included three items: Romantic partners, friends and parents. A 5-point Likert scale was provided, reaching from 1 (= not true for me at all) to 5 (= extremely true for me). Social context was only used as a control variable.

The Experience in Close Relationships-Revised questionnaire (ECR-R; Fraley et al., 2000) was used to measure adult attachment styles. The questionnaire consists of 36 items and is divided into two subscales, in which 18 items measure avoidance and 18 measure

anxiety. Participants were asked to indicate how much they agree with each statement on a 7-point Likert scale, reaching from 1 (= strongly disagree) to 7 (= strongly agree). Scores on each subscale can reach from 18 to 126. Higher scores on the subscales indicate a more insecure attachment. The ECR-R showed high internal validity for both the avoidance (α = .94) and anxiety (α = .86) subscale. Lastly, the retest reliability has been estimated to be in the lower 0.90s (Sibley et al., 2005).

Procedure

An online survey was constructed via the platform Qualtrics. Participants were recruited through a post on different online platforms and social media, such as WhatsApp and Facebook. When participants clicked on the link to the study, a short briefing informed them about the subject of the study consisting of attachment and emotion regulation, without going into detail. Additionally, participants were informed, that participation is voluntary and anonymous. Next, participants were asked to provide informed consent. After consent was given, participants received questions on demographical data, such as age and gender. Afterwards, the questionnaires were administered in a random order. However, the IERQ was always followed by the social context measurement of IER. Additionally, the order of statements of the ECR-R were randomized. After all questionnaires were filled out, participants were thanked for their participation and were given a short debriefing text, which explained the goal of the study. Participation in the study took about 15 minutes and no reimbursement was granted.

Data Analysis

A data matrix was exported from Qualtrics, with the data analysis taking place in the statistical program SPSS 28 (IBM Corp, 2021).

To gain one variable representing psychological well-being, the DASS-21 and SWLS were combined. First, the scoring of the SWLS was inverted so that higher scores represent poorer well-being, like in the DASS-21. Next, correlations between the DASS-21 subscales and the SWLS were calculated to find support for combining the two scales. Lastly, a mean score consisting of the standardized scores from the DASS-21 subscales of stress, depression and anxiety and the standardized SWLS scale was calculated. It is important to note that higher scores on well-being now represented poorer well-being. IER scores were totaled into a single score representing IER and standardized. Total standardized mean scores for the subscale of avoidant attachment and anxious attachment were calculated.

To test the two hypotheses, two mediation analyses were conducted with the help of the macros Process 4 in SPSS (Hayes, 2013). The analysis included a robust standard error ensuring homoscedasticity and linearity was confirmed using partial scatterplots. The first mediation analysis consisted of the dependent variable of psychological wellbeing, IER as the mediator, avoidant attachment as the independent variable and the control variables of social contexts as covariates. The second mediation analysis followed the same model, but exchanged avoidant for anxious attachment as the independent variable. In both analyses, bootstrapping with 10,000 resamples was used, as literature recommends a minimum of 5,000 (Hayes, 2009).

Results

Descriptive data on the variables, as well as correlations between variables, can be found in table A2.

Data reduction

Correlations between the DASS-21 subscales and the SWLS are presented in table A3. As all correlations were highly significant, the standardized scores were averaged into a single variable representing general psychological well-being.

Analysis of IER mediating avoidant attachment and well-being

To test the first hypothesis that IER mediates the relationship between avoidant attachment and well-being, a mediation analyses was performed with well-being as dependent variable, avoidant attachment as the predictor, IER as mediating variable and the social contexts of partners, friends and parents as covariates. The analysis indicated that avoidant attachment was not significantly related to IER ($p = .212$, $B = -.44$, $SE = .35$) and that IER was not significantly related to well-being ($p = .816$, $B = -.01$, $SE = .05$). Moreover, the direct effect of avoidant attachment on well-being was not significant ($p = .131$, $B = .17$, $SE = .11$, $95\% CI = -.05$ to $.39$). Individuals high on avoidant attachment did not use less IER or show poorer well-being compared to individuals low on avoidant attachment. The indirect effect of avoidant attachment on well-being was not significant ($B = .01$, $SE = .03$, $95\% CI = -.05$ to $.06$), indicating that IER did not mediate the relationship between avoidant attachment and well-being. Thus, the first hypothesis was rejected. It is important to note that two control variables showed significant correlations to IER: Social contexts of friends ($p < 001$, $B = .93$, $SE = .25$) and of parents ($p < .001$, $B = 1.08$, $SE = .28$) were positively correlated with IER.

Analysis of IER mediating anxious attachment and well-being

To test the second hypothesis that IER mediates the relationship between anxious attachment and well-being, a mediation analyses was performed with well-being as dependent variable, anxious attachment as the predictor, IER as mediating variable and the social contexts of partners, friends and parents as covariates. The second mediation analysis indicated that anxious attachment was not significantly related to IER ($p = .796$, $B = .09$, $SE = $

.35) and that IER was not significantly related to well-being (p = .448, B = -.03, SE = .04). The direct effect of anxious attachment on well-being was significant (p <.001, B = .45, SE = .08, *95% CI* = .23 to .60). More anxiously attached individuals showed higher well-being scores and thus poorer well-being, but did not use more IER compared to individuals low in attachment anxiety. The indirect effect of anxious attachment on well-being was not significant (B = -.00, SE = .02, *95% CI* = -.05 to .03), indicating that IER did not mediate the relationship between anxious attachment and well-being. Thus, the second hypothesis was rejected. The control variables of friends (p <.001, B = .93, SE = .24) and parents (p < 001, B = 1.08, SE = .29) were positively related to IER.

General Discussion

The present study examined the different roles of avoidant and anxious attachment on psychological well-being mediated by Interpersonal Emotion Regulation (IER). The results indicate that IER did not mediate the relationship between attachment and psychological well-being, while exploring avoidant and anxious attachment separately. The only significant correlation indicated that highly anxious individuals show significantly poorer well-being compared to low anxious ones. Additionally, a positive correlation was found between social contexts of friends and parents and IER in both, the anxious and avoidant attachment model.

Contrary to the first hypothesis, avoidant attachment was not positively associated with poor well-being and the relationship was not mediated by IER. Additionally, the results also indicate that different IER scores were not correlated with avoidant attachment and it did not predict the level of wellbeing. These findings go against past literature, that showed that highly avoidant attached individuals tend to distance themselves (Cyranowksi et al., 2002), thus would use less IER, and that high avoidant attachment is associated with poorer well-being (Warren et al., 1997). An explanation for the contradictory findings is that the

distinctive deactivating characteristics of avoidant attachment, such as withdrawal, are evoked by specific stressful or demanding circumstances (Simpson & Rholes, 2017). Highly avoidant individuals are not always withdrawn. The current study did not stimulate a stressful situation, which could mean that the deactivating strategies of highly avoidant individuals were not activated, explaining why low avoidant attachment did not differ from high avoidant attachment.

Additionally. no mediation took place of IER on the relationship between anxious attachment and well-being, contradicting the second hypothesis. But, the hypothesized positive correlation between anxious attachment and poor well-being was found. This finding is in line with previous literature in which highly anxious individuals, compared to low anxiety, show more intense negative emotions (Simpson & Rholes, 2017) and higher negative affect (Sheinbaun et al., 2015). Contrary to the predictions, higher levels of anxious attachment were not correlated with higher IER scores, and IER did not predict well-being. Similar to avoidant attachment, the characteristics of anxious attachment are triggered in stressful situations (Simpson & Rholes, 2017). The current study did not include a stressful situation, which could have undermined the effect of high anxiety on IER as the typical hyperactivation of emotion regulation might not have been triggered.

Furthermore, previous research primarily focused on examining secure in contrast to insecure attachment (Jinyao et al., 2012; Spruit et al., 2019), which did not differentiate between the three subtypes of insecure attachment. Meanwhile, this study only focused on two of the subtypes compromised of high avoidance or high anxiety. The subtype of fearful avoidant, which has both, high anxiety and high avoidance was not investigated. This discrepancy limits the generalizability to previous literature and might explain the contradictory findings.

It is important to consider, that the research on IER and even more on IER as a mediator between attachment and well-being is very scarce. Even so, the current findings contradict previous findings of Gökdag (2021), who was the only other study who investigated this specific relationship. Gökdag (2021) found that IER strategies were influenced by attachment styles, which in turn effects levels of psychological distress. The current study found that IER strategies are not influenced by attachment styles, and that IER does not influence psychological distress. However, it was found that high anxious attachment negatively influences well-being, which is line with Gökdag's (2021) study. In order to explain the discrepancies, it is essential to look at the differences between the studies. Compared to the present study, Gökdag only investigated attachment anxiety and the IER strategy of soothing and more importantly, included perceived social support of friends, significant others and family as a mediator into his model. The importance of these different social supports was controlled for in the present study. For anxious and avoidant attachment friends and parents were positively correlated with IER, while romantic partners were not. This is especially interesting, when one considers that the ECR-R only measures attachment in a romantic relationship. Attachment was solely based on romantic partners, while participants only associated IER with friends and family. This might explain why no effect between attachment and IER was found. Adult attachment develops by the way in which a person is dealt with by key individuals throughout their life span, particularly during challenging periods (Mikulincer & Shaver, 2019). Thus, adult attachment can also be measured within relationships, such as friends and family.

Here, it is essential to mention the feedback received from participants, which stated that many were unsure on how to fill in the ECR-R, as they have never been in a relationship. This was reflected in the data, as many simply did not fill out the ECR-R and therefore had to be excluded from data analysis. This represents the first limitation of the present study.

Second, a limitation can be found in the relatively small sample size. Hence, a decrease in statistical power and less conclusive results can be assumed. The third limitation is, that the model of this study did not investigate fearful avoidant attachment. It is possible, that only individuals high on both, anxiety and avoidance, show the mediating effect of IER. Lastly, the data of this study was collected in 2022 where Covid-19 was still present. The worldwide pandemic drastically changed the lives of everyone. During the pandemic, levels of depression, anxiety and stress rose significantly (Duan & Zhu, 2020). In addition to the impact on the mental and physical health of individuals, lockdowns and the requirements for social distancing and self-isolation created challenges for interpersonal connections (Brooks et al., 2020). IER, in which the interaction between individuals is essential, could therefore have been affected as well. Individuals did not have the chance to use as many IER strategies in person, which could have compromised the findings of the study. As the daily life of individuals is currently returning to normal, with no rules of lockdowns or social-distancing, a new study on the mediating effect of IER taking all previous suggestions into account, is essential.

Taking everything into consideration, future research needs to keep on investigating the relationship between attachment, IER and well-being, while taking the above-mentioned limitations into account. Moreover, future research should keep on examining the two dimensions of anxiety and avoidance separately, due to their contradicting interpersonal characteristics, but also explore effects of fearful avoidant individuals. This study is one of the first that investigates IER as a mediator between attachment and well-being and shows contradictory findings to past research. More research is needed to either validate or invalidate the current findings, as the true mechanisms, causes and effects of IER remain unknown. IER could be very useful in future therapeutic interventions. If a mediation of IER is found, improving or decreasing IER in therapy could be a helpful tool for individuals to

reduce the negative effects attachment has on well-being, and in doing so, decrease suffering. Even if no mediation is found, it suggests that a focus on other strategies such as intrapersonal emotion regulation is needed.

In conclusion, the present study's findings contribute to the little pool of literature on IER, as it suggests that IER does not mediate the relationship between attachment and well-being. But, as several limitations exist, a definitive statement cannot be made. Therefore, future research is necessary to validate or refute the outcomes. Future research needs to take into consideration that a different measure of attachment is needed, to maintain the differentiation of attachments due to their unique characteristics and that a stressor to induce characteristics of attachment in the study might be necessary. Future research is important due to the potential IER might have for therapeutic interventions targeting emotion regulation, as the momentary focus within the literature lays in intrapersonal regulation.

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Appendix A

Table A1

Additional demographical data of participants

Baseline characteristic	N
Occupation	
Student	38
Employee	16
Part-timer	4
Manager	3
Self-employed	3
Public Service	3
Other	3
Nationality	
German	25
American	14
British	9
Italian	4
Other	18
Level of education	
Bachelor's degree	23
Some college without earning a degree	17
Master's degree	15
High school graduate	6
Less than highschool	3
Doctorate degree	3
Other	3

Note. N=70

Table A2

Descriptive Statistics and Correlations for Study Variables

Variable	n	M	SD	1	2	3	4	5	6	7
1. Avoidant attachment	70	2.99	1.20	—						
2. Anxious attachment	70	3.03	1.02	.19	—					
3. IER	70	69.07	8.6	-.34**	.16	—				
4. well-being[a]	70	0	.78	.14	.55**	-.04	—			
5. SC[b]-partner	70	3.16	1.45	-.57**	.18	.38**	.02	—		
6. SC-friends	70	2.77	1.36	-.24*	.21	.46**	.04	.39**	—	
7. SC-parents	70	2.30	1.32	-.13	.09	.49*	-.03	.21	.20	—

[a] standardized score consisting of DASS-21 and SWLS scores.

[b] the abbreviation SC stands for social context.

*$p < .05$. **$p < .01$.

Table A3

Pearson Correlations for the SWSL and DASS-21 subscales

Variable	1	2	3	4
1. SWLS	-			
2. DASS Anxiety	.28*	-		
3. DASS Stress	.25*	.72**	-	
4. DASS Depression	.42**	.60**	.63**	-

*$p < .05$. **$p < .01$

Appendix B

Social Contexts of IERQ Question

In the following, please indicate how much the statements from the previous questionnaire, regarding how people use others to regulate their emotions, are true for you in relation to different groups of people. For this use a scale from 1 (not true for me at all) to 5 (extremely true for me). There are no right or wrong answers.

I use my _____ to regulate my emotions.

	1 – not true for me at all	2 – a little bit	3 – moderately	4 - quite a bit	5 – extremely true for me
romantic partner(s)	1	2	3	4	5
friend(s)	1	2	3	4	5
parent(s)	1	2	3	4	5