

The Association between Romantic Attachment and Positive Body Image in Young Adult Women: The Mediating Role of Self-Compassion

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Abstract

Aiming at identifying underlying factors of positive body image, this study explored associations between romantic attachment anxiety and avoidance and positive body image as well as the mediating role of self-compassion in these relationships. In a cross-sectional design, 251 young women completed an online survey study, including the Body Appreciation Scale (BAS-2), Self-Compassion Scale (SCS) and the Experience in Close Relationship Scale (ECR-S). The data were analysed through correlation analyses and mediation analysis. The correlation analyses showed negative associations between both romantic attachment dimensions and self-compassion and a positive association between self-compassion and positive body image. The mediation analysis results revealed that higher levels on either romantic attachment dimension were indirectly related with lower positive body image through lower self-compassion. These findings suggest that self-compassion is an essential underlying mechanism in the relation of romantic attachment and positive body image. Insecurely attached individuals and clinical practices are encouraged to provide more care and emphasis on self-compassion to increase positive body image and subsequently strengthen mental health. For clinical practices, a greater focus on self-compassion interventions in the context of attachment-related body image is suggested.

Keywords: romantic attachment anxiety, romantic attachment avoidance, self-compassion, positive body image, young women

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Beauty is about being comfortable in your own skin. It's about knowing and accepting who you are.

— Ellen DeGeneres, *Seriously... I'm Kidding*

Body image is a major area of interest for researchers as well as in the general population. It has been referred to as a complex construct, including several features of how individuals perceive their body (e.g., Andrew et al., 2016; Tiggemann & McCourt, 2013). Body images influence how “individuals feel toward, think about, perceive, and treat their body” (Tylka, 2012, p. 657). Often, people tend to regard their physical appearance critically. Especially young women are often challenged with a negative body image (Calogero & Thompson, 2010; Manaf et al., 2016). Conceptually different from a negative body image, positive body image reflects the absence of negative body image and the presence of favourable thoughts of and positive feelings about the body (Tylka, 2012). Those include among others acceptance, respect, appreciation and love. Individuals with a positive body image take better care of their body and health and consider their needs (Tylka, 2012). Since positive body image is strongly linked to well-being, it is crucial to investigate its determinants and underlying mechanisms to select appropriate targets for interventions in the perspective of enhancing mental health (Homan & Tylka, 2015).

Attachment seems to be highly relevant in this context, as body image is strongly influenced by interactions with important others (Raque-Bogdan et al., 2016; Tantleff-Dunn & Gokee, 2002). Attachment refers to the ways individuals organise their connections to important others in so-called internal working models (Bowlby, 1969). In these, “affective and cognitive representations of self, others, and relationships” are embodied (Li & Zheng, 2014, p.1263). According to Bowlby’s attachment theory (1969, 1980), experiences in early life with attachment figures (e.g., parents) form a basis of the cognitive representations of the self and others which guides how people shape relationships later in life (Wei et al., 2011). Additionally, Hazan and Shaver (1987) identified romantic love as an attachment process later on, and Fraley and Shaver (2000) explained that the dynamics between early and romantic attachment and the differences in their forms seem to be similar. Working models can change over time in response to new experiences, particularly with romantic partners (Hazan & Shaver, 1994). Besides secure attachment, which suggests consistency and care from the significant other (Bowlby, 1980), implying a more positive body image, individual differences in romantic attachment could also be expressed as insecure attachment (Wei et al., 2007), which is based on two attachment dimensions, which are attachment anxiety and attachment avoidance (Foster

et al., 2007).

Particularly attachment anxiety seems to be relevant in the context of body image. Attachment anxiety refers to individuals who worry about being rejected by others (Foster et al., 2007). They have doubts concerning close relationships and view themselves negatively; for example, do not feel worthy and are self-critical (Pepping et al., 2014). Individuals high in romantic attachment anxiety may focus on their body image to meet social norms, such as physical appearance, or for comparison as they are anxious about rejection by their partner. Due to the negative model of themselves, it may be likely that individuals high in attachment anxiety hold a less positive body image. Attachment avoidance describes individuals who feel uncomfortable with relationships (Foster et al., 2007). They tend to avoid close and intimate situations and relations (Pepping et al., 2014) and suppress their emotions regarding a desire for attachment (Mikulincer & Shaver, 2007). Individuals high in romantic attachment avoidance may simply not attend to their body image as they tend to avoid any situation or relation that may motivate them differently and do not experience the need to attribute attention to their body image. Thus, individuals high in romantic attachment avoidance may have no association with positive body image. Hence, theoretically argued, solely romantic attachment anxiety is likely to result in lower positive body image. Empirical studies showed that romantic attachment anxiety was associated with less positive body image, but romantic attachment avoidance was not (Innantuono & Tylka, 2012; van den Brink et al., 2015).

One underlying mechanism explaining the association between romantic attachment anxiety and positive body image might be self-compassion. Self-compassion refers to being kind towards oneself. It involves self-acceptance (Neely et al., 2009) and the tendency to realise, accept and the intention to reduce one's struggles through kindness towards oneself (Neff, 2003a). It also includes understanding that struggling is typical and experienced by all people (Neff, 2003a). Individuals high in attachment anxiety have trouble being considerably reassuring towards themselves (Pepping et al., 2014) and tend to be less kind towards themselves (Wei et al., 2011), which indicates lower levels of self-compassion. This is in line with research which demonstrated a negative association between attachment anxiety and self-compassion (e.g., Mackintosh et al., 2017; Raque-Bogdan et al., 2011). Lastly, self-compassion may be relevant in the relation of romantic attachment anxiety and positive body image, as higher levels of anxiety may translate into lower levels of self-compassion which, in turn, may result in a less positive body image. Being unkind towards oneself may indicate less kindness towards the body and its needs, which may result in a less positive body image as self-criticism is extensive without much appreciation of positive features of one's body. This is in line with

Methods

Participants and Procedure

Once the approval by the Ethics Committee of the Faculty of Social and Behavioural Sciences of Utrecht University (#20-0348) was received, the online survey study was pilot-tested. The study was conducted with ‘Qualtrics’ (<https://www.qualtrics.com>), which handles complex surveys and is one of the most used survey software (Qualtrics, 2021).

Before conducting the study, the researcher decided upon the minimum sample size. Similar research demonstrated a variability on small to medium (e.g., Mackintosh et al., 2017) or small to large effects (e.g., Raque-Bogdan et al., 2011) on the associations of attachment and self-compassion, and small effects concerning self-compassion and positive body image (Homan & Tylka, 2015). Thus, small to medium effect sizes were assumed for associations of romantic attachment, self-compassion, and positive body image. Using the G* Power 3.1.9.7 statistical power software (Faul et al., 2007), a priori power analysis (under guidelines from Cohen, 1988) showed that, given $\alpha = .05$ and $f^2 = .08$ (representing an effect size between small = .02 and medium = .15, effect) and two tested predictors, a sample size of $N = 197$ was required. A sample size of at least $N = 148$ was needed to detect mediation in effect sizes halfway between the values for small and medium effects (Fritz & MacKinnon, 2007). Considering the results of the power analyses and sample size calculations by Fritz and MacKinnon (2007), the required sample size was at least $N = 197$.

Participants were recruited through snowballing sampling, a nonprobability convenience sampling (Naderifar et al., 2017). The researcher informed potential participants from her network, mainly via social media, about the study. Potential participants for this study were women aged between 18 – 35 years. Approached individuals were asked to share the survey with acquaintances to increase participation. Additionally, the survey was published on the Utrecht University Sona system (i.e., a student Website that provides an overview of current research projects).

Once participants opened the online survey, they found relevant information about the study and provided active consent by ticking a box (see Appendix A). The study was opened for approximately seven weeks (November 21, 2020 – January 7, 2021). Participants could complete started surveys within one week. On average, it took 10 minutes to finish the online survey (two outliers were excluded: 15h18, 38h49). Social science students at Utrecht University received 0.5 points for test subject hour as compensation for the study. Other participants were not compensated.

A total of 393 individuals participated in this study, whereas 292 fully completed the survey (completion rate of 74.3%). Cases including missing values, no previous romantic relationship, or non-European nationality (ethical condition) were deleted resulting in 251 valuable responses. This was greater than the indicated minimum for a sufficient sample size. The participants were between 18 and 35 years old ($M = 28.63$, $SD = 5.35$) and were mainly from Germany ($n = 206$, 82.1%), followed by the Netherlands ($n = 27$, 10.8%). The main occupation of more than half of the participants was work ($n = 136$, 54.2%), followed by being a student ($n = 95$, 37.8%). Many regarded themselves as heterosexual ($n = 216$, 86.1%). The rest of the participants self-identified as bisexual ($n = 24$, 9.6%), homosexual ($n = 9$, 3.6%) or other ($n = 2$, .8%). Most participants were engaged in romantic relationships at the time of the study ($n = 207$, 82.5%), of which many had been in a relationship since more than two years ($n = 142$, 68.6%).

Measures

The study consisted of demographic questions (see Appendix B) and three validated questionnaires.

Romantic Attachment.

The Experience in Close Relationship Scale – Short Form (ECR-S; Wei et al., 2007) and its German and Dutch versions, translated by native speakers affiliated with the study, measured two dimensions of adult attachment styles, that is attachment anxiety and avoidance, in romantic relationships (see Appendix C). The ECR-S seemed to be equally valuable as its original version (Wei et al., 2007). The statements were demonstrated on a seven-point Likert Scale and ranged from 1 ‘strongly disagree’ to 7 ‘strongly disagree’. Romantic attachment anxiety was represented by six even-numbered items and romantic attachment avoidance by six odd-numbered ones. Since it was expected that anxiety and avoidance represent two different dimensions, although presented on the same scale (Wei et al., 2007), the corresponding attachment subscale scores were created. Negative items were recoded and the romantic attachment anxiety and avoidance items were averaged separately. Higher scores implied higher levels of either romantic attachment dimensions. Previous research justified the reliability and validity of ECR-S (Wei et al., 2007). This present study provided an acceptable Cronbach’s alpha for romantic attachment anxiety ($\alpha = .72$) and avoidance ($\alpha = .79$).

Positive Body Image.

Positive body image can be measured using the Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015). Whereas the Dutch version (Alleva et al., 2016) was available, the German version was translated by a native speaking researcher affiliated with this study. The BAS-2 consisted of statements that addressed oneself and the relationship to one's body (see Appendix D). The ten items were measured on a five-point Likert scale ranging from 1 'never' to 5 'always'. The item scores were averaged to create overall body appreciation scores; higher scores indicated greater body appreciation, thus higher positive body image. Research has supported the psychometric validity and reliability of the BAS-2 (Tylka & Wood-Barcalow, 2015). Cronbach's alpha in the present study was high ($\alpha = .92$).

Self-Compassion.

The Self-Compassion Scale (SCS; Neff, 2003b) and the German (Hupfeld & Ruffieux, 2011) and Dutch versions were applied to measure self-compassion. The latter was translated by the researcher and checked by a native speaker affiliated with the current study. The questionnaire included statements that referred to how one usually behaved towards oneself in challenging times (see Appendix E). This questionnaire was presented on a five-point Likert Scale, and reached from 1 'almost never' to 5 'almost always'. The SCS included 26 items, of which 13 items were positively and 13 items negatively formulated (see Appendix D). The latter were recoded, and subscales were created averaging the corresponding items. To obtain overall self-compassion scores, the subscales were averaged. The higher the total scores were, the greater the self-compassion. Neff (2016) emphasised the validity of the SCS on self-compassion and its reliability. In this current study, Cronbach's alpha for self-compassion was high ($\alpha = .92$).

Statistical Analysis

Statistical analyses were performed with IBM SPSS Statistics Version 26 and PROCESS for SPSS 3.5 (Model 4; Hayes, 2013). First, bivariate associations between the study variables were analysed using Pearson correlation coefficients. Next, a mediation analysis with romantic attachment anxiety and avoidance as independent variables, self-compassion as mediator, and positive body image as dependent variable was conducted.

The mediation analyses contained several sub-analyses. The *multiple regression analysis* was performed to determine unique effects of romantic attachment anxiety and avoidance on self-compassion. The *hierarchical regression analysis* provided the total and direct effects of romantic attachment anxiety and avoidance. Total effects combine indirect and direct effects (Hayes, 2013), representing the relationship between romantic attachment anxiety and positive body image, and romantic attachment avoidance and positive body image. Direct effects referred to the effect of romantic attachment anxiety and avoidance on positive body image while controlling for the level of self-compassion. The direct effect of self-compassion on positive body image was also determined. *The bootstrap analyses* including 5000 bootstrap samples were conducted to identify indirect effects which represent the effects of the independent variables and the mediator (Hayes, 2013); thus, the relationship of romantic attachment anxiety and avoidance on positive body image through self-compassion. Indirect effects were present if the value within the confidence intervals did not include zero. Furthermore, to what extent the total effect of romantic attachment avoidance on positive body image operated indirectly was computed as a proportion by dividing the indirect effect by the total effect times 100 (UCLA, n.d.). All coefficients were standardised.

Results

Descriptive Statistics and Bivariate Correlations

The results of the correlation analyses are presented in Table 1. There was no significant correlation between romantic attachment anxiety and avoidance. In line with expectation, higher romantic attachment anxiety was related to less positive body image. Romantic attachment avoidance was also associated with less positive body image. A negative association between both romantic attachment dimensions and self-compassion and a positive relation between self-compassion and positive body image were found.

Table 1*Means, Standard Deviations, and Bivariate Correlations for the Study Variables*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4
1. Romantic attachment anxiety ^a	251	2.49	1.10	—			
2. Romantic attachment avoidance ^a	251	3.79	1.15	.11	—		
3. Self-compassion ^b	251	2.97	0.59	-.34**	-.34**	—	
4. Positive body image ^b	251	3.36	0.68	-.15*	-.39**	.57**	—

** $p < .001$.; * $p < .05$

^a Scale range: 1-7 with higher scores implying more romantic attachment anxiety/ avoidance

^b Scale range: 1-5 with higher scores implying more self-compassion/ positive body image

Total, Direct, and Indirect Effects of Romantic Attachment on Positive Body Image Through Self-Compassion

The assumptions of multiple regression analysis (i.e., linearity, multivariate normality, no multicollinearity, homoscedasticity) were tested and were met. Figure 2 illustrates the results. Significant negative effects of both romantic attachment dimensions on self-compassion were found. This indicates that higher levels of romantic attachment anxiety and avoidance were uniquely associated with lower self-compassion. A total of 21% of variance in self-compassion could be explained, $F(2, 248) = 33.26$, $p < .001$. A significant positive effect of self-compassion on positive body image was revealed; higher self-compassion was associated with higher positive body image.

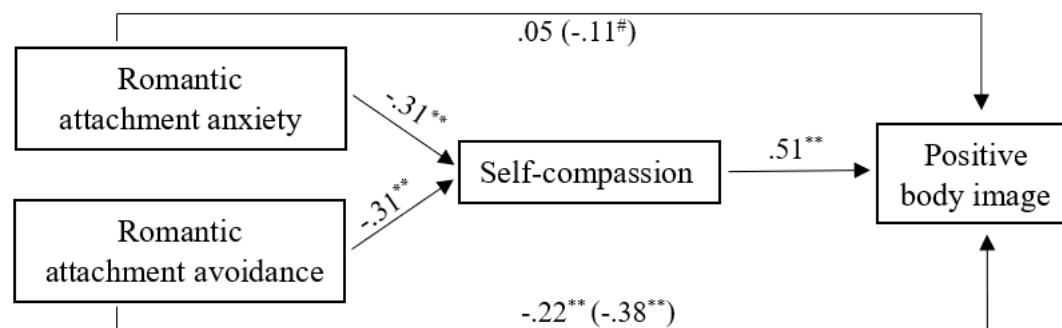


Figure 2. The effect of self-compassion on the relationship between both romantic attachment dimensions and positive body image. Total effects are presented in parentheses. All coefficients are standardised. Notes: ** $p < .001$, # $p < .10$.

The results of the hierarchical regression analysis (see Figure 2) demonstrated a negative marginally significant total effect for romantic attachment anxiety, which indicated that higher romantic attachment anxiety was related to less positive body image as expected, and no direct effect for romantic attachment anxiety. This means that the association did not remain when its indirect effect through self-compassion was considered. Also, significant negative total and direct effects of romantic attachment avoidance on positive body image were found. The total effect indicated that higher romantic attachment avoidance levels were associated with a less positive body image. This association remained when its indirect effect through self-compassion was considered, indicating a significant direct effect. Considering both attachment dimensions and self-compassion, a total of 17% of variance in positive body image was explained, $F(2, 248) = 24.65, p < .001$.

Confirming the expectation, bootstrap analyses discovered significant negative indirect effects of romantic attachment anxiety ($\beta = -.16$; 95% CI [-.26, -.06]) on positive body image through self-compassion. Also, indirect effects of romantic attachment avoidance ($\beta = -.16$; 95% CI [-.25, -.07]) on positive body image through self-compassion were found. This means that higher levels of either attachment dimensions were associated with lower levels of positive body image through less self-compassion. Additionally, the proportion of the total effect of romantic attachment avoidance on positive body image that performed indirectly was 41.42%. This means 58.58% operated directly.

Discussion

The present study aimed at gaining a greater understanding of underlying mechanisms of positive body image in young women, and therefore determined the association of romantic attachment (i.e., anxiety and avoidance) with self-compassion and positive body image. Precisely, the mediating role of self-compassion in the relationship between romantic attachment and positive body image was assessed.

The results showed that higher levels in romantic attachment anxiety were marginally associated with lower positive body image, indicating some relationship, although less strong than assumed still congruent with expectations and literature (Innantuono & Tylka, 2012; van den Brink et al., 2015). One interesting finding was that higher levels in romantic attachment avoidance were related to lower positive body image. The relation may be explained through an emotion regulation strategy. Individuals high in romantic attachment avoidance are likely to cope by suppressing their emotions (Pascuzzo et al., 2013). Suppression

may be related to experiencing fewer positive emotions (Gross, 2002). Since positive body image is associated with positive emotions towards one's body, it is consistent with Gross (2002) that those are lower when romantic attachment avoidance is high in individuals. However, this explanation remains hypothetical needing further investigation.

Moreover, as expected, this study highlighted that the association between romantic attachment anxiety and positive body image is mediated by self-compassion, supporting indications of prior literature (e.g., Homan & Tylka, 2015; Raque-Bogdan et al., 2016). To be more exact, a greater level of romantic attachment anxiety was associated with lower self-compassion which, in turn, was related to less positive body image. These findings can be explained in the sense that individuals high in attachment anxiety tend to be critical towards themselves as the working model of their self is negative (Wei et al., 2011). Thus, self-critical individuals may rather be hard on themselves than kind and consequently experience and act upon less self-compassion. This also implies that they may express more criticism towards their bodies and subsequently have lower positive body image. A great extent of research supports the finding that self-compassion acts as a mediating mechanism and is positively related to positive body image (e.g., Andrew et al., 2016; Homan & Tylka, 2015; Raque-Bogdan et al., 2016; Wasylikiw et al., 2012).

It is interesting to note that this research additionally demonstrated self-compassion as a mediating factor underlying the association of romantic attachment avoidance and positive body image. Higher levels of romantic attachment avoidance were related to less self-compassion which consecutively was associated with lower positive body image, implying a partial, particularly a complementary, mediation. Higher romantic attachment avoidance leading to lower self-compassion can be explained through the coping strategy of suppression because individuals suppressing emotions tolerate fewer positive emotions (Gross, 2002), thus less self-compassion. Further, individuals high in attachment avoidance struggle with compassionately accepting deficiencies and rather deny them altogether, which may also indicate lower levels of self-compassion (Pepping et al., 2014). Although some studies did not conclude any association between attachment avoidance and self-compassion (Neff & McGehee, 2009; Wei et al., 2011) opposing these present study findings, others supported them with an association (Mackintosh et al., 2017; Raque-Bogdan et al., 2011). Being low in self-compassion may explain that those individuals are also less kind towards their bodies and appreciate it less, thus, are lower in positive body image. Considering this from the opposite viewpoint, self-compassion could be viewed as protective factor regarding mental health in young women as higher positive body image relates to higher well-being (Raque-Bogdan et

al., 2016). The partial mediation indicated that there was also a romantic attachment avoidance effect on positive body image that could not be explained by self-compassion. Thus, besides self-compassion, this study emphasised that for this relationship other mediators are involved.

Hence, it may be valuable to further study the relationship between romantic attachment avoidance and positive body image and investigate potential underlying factors. For example, higher self-esteem is related to higher positive body image (Andrew et al., 2016). It can promote “changes in self-concept that help women to focus on the functionality of their bodies” in a way that protects their body image (Swami et al., 2016, p.43). Whereas Swami and others (2016) addressed self-concept changes through self-esteem, it is essential to also consider underlying attachment experiences, which are according to attachment theory, crucial in priorly creating a self-image (Li & Zheng, 2014). Although attachment avoidance was unrelated to self-esteem (e.g., Foster et al., 2007; Li & Zheng, 2014), research indicated that self-esteem mediated the relation between attachment avoidance and subjective well-being (Li & Zheng, 2014). As the latter and positive body image are associated (Raque-Bogdan et al., 2016) and self-esteem acted as a mediator for greater positive body image (Swami et al., 2016), self-esteem may also act as a mediator between romantic attachment avoidance and positive body image. Thus, investigating this relation in future studies is suggested.

Most research used to underpin expectations regarding this study examined attachment in its general form and did not focus particularly on romantic attachment since such research was rarely conducted, apart from some (Raque-Bogdan et al., 2016; van den Brink et al., 2015). As the dynamics and different forms of romantic relationships seem to be similar to those of infant-caregiver relationships (Fraley & Shaver, 2000), it was seen as appropriate to use research findings addressing general adult attachment as an orientation for research regarding romantic attachment. Nevertheless, one needs to keep in mind that romantic relationships differ from general attachment as they include, for example, sex (Fraley & Shaver, 2000).

Implications

Conforming findings were present regarding the relevant role of self-compassion as it functioned well as an underlying mediator in the relation of both romantic attachment dimensions and positive body image. Since many individuals are challenged with their perception of their body, some may benefit from adapting their attachment-related body image. Thus, individuals aiming to strengthen their positive body image could focus more on being kind towards themselves, their bodies, and their needs. It is generally vital that individuals take

good care of themselves, for example, aiming at well-being. Appreciating one's body can lead, among others, to being happy. And taking care of one's mental health is an essential responsibility towards oneself. However, depending on the negative body image's extensity, it can lead to mental disorders such as social anxiety, eating disorders (Avalos et al., 2005) or depression (Manaf, 2016) in which clinicians are involved in the process. For this, it may be helpful for clinical practices to focus on enhancing their client's self-compassion. Aiming at higher levels of self-compassion may not only lead to a decrease of their negative attachment-related body image but, moreover, an increase in positive attachment-related body image. This aim could be addressed by offering self-compassion workshops or interventions in the context of attachment-related body image. Literature search suggested that higher levels of self-compassion were gained through workshops (Neff & Germer, 2013) and supported self-compassion interventions' effectiveness. Those indeed showed a decrease in body dissatisfaction and an increase in positive body image (Albertson et al., 2015). One possibility to enhance self-compassion for clinicians is, for example, to introduce brief writing interventions (Leary et al., 2007) and self-talks addressing the topic (Raque-Bogdan et al., 2016).

Limitations

One limitation of this study refers to its homogeneous sample, possibly due to snowball sampling. Its selection was not random (Johnson, 2014), indicating that one should avoid extrapolating the findings to the general population (Sharma, 2017). For instance, most participants were heterosexually oriented, which is not representative of the LGBT population. Considering the study context, this bias is relevant as romantic relationships and attachments may differ in diverse sexually-oriented relationships. Additionally, most participants were engaged in a romantic relationship at the time of the study, which was not representative of all relationship status. Another example is that most participants held a German nationality which should not be generalised to the European population because of cultural differences.

Further, this study indicated valuable results in general, yet not about the individual's processes, referring to one weakness of cross-sectional designs. It identified factors, but not the causality between the variables for which a longitudinal study design and within-person analyses could be conducted (Raque-Bogdan et al., 2016).

Considering that some questionnaires were self-translated, some content may not have been adequately converted as it is challenging to meet conceptual, linguistic and dynamic equivalence (Piazolli, 2015), perhaps leading to deviating interpretations and research findings.

Lastly, one should bear in mind that this study was conducted in times of the Corona Virus crisis (COVID-19), implying its counter measurements could have caused biases; for example, corresponding experiences may have influenced self-compassion and the situation could have affected the results in some way. For example, but by no means proven to be true, self-compassion could have gained more importance, and thus more realisation, during the crisis.

Conclusion

In conclusion, higher levels in either romantic attachment dimensions were associated with lower self-compassion and lower positive body image; additionally, self-compassion mediated the relation between both romantic attachment dimensions and positive body image. Insecurely attached individuals are encouraged to contribute additional attention to self-compassion to strengthen mental health. Although positive body image is not a construct that is automatically considered relevant in a clinical context, this study suggested that it may be helpful to provide a more throughout focus on self-compassion interventions in the mental health care setting.

Overall, everyone has made experiences which have shaped them to whom they have become. In romantic relationships, romantic attachment is, for example, one core element of such. Learning to attribute importance to self-compassion can then support enhancing positive body image. And consequences of positive body image are being happy and feeling beautiful (Tylka, 2012). And in other words, as DeGeneres put it, “Beauty is about being comfortable in your own skin. It’s about knowing and accepting who you are” (2011, p.8).

References

- Albertson, E. R., Neff, K. D., & Dill-Shackleford, K. E. (2015). Self-compassion and body dissatisfaction in women: A randomized controlled trial of a brief meditation intervention. *Mindfulness*, *6*(3), 444-454. <https://doi.org/10.1007/s12671-014-0277-3>.
- Alleva, J. M., Martijn, C., Veldhuis, J., & Tylka, T. L. (2016). A Dutch translation and validation of the Body Appreciation Scale-2: An investigation with female university students in the Netherlands. *Body Image*, *19*, 44–48.
<http://dx.doi.org/10.1016/j.bodyim.2016.08.008>
- Andrew, R., Tiggemann, M., & Clark, L. (2016). Predicting body appreciation in young women: An integrated model of positive body image. *Body Image*, *18*, 34–42. <https://doi.org/10.1016/j.bodyim.2016.04.003>
- Avalos, L., Tylka, T. L., & Wood-Barcalow, N. (2005). The body appreciation scale: Development and psychometric evaluation. *Body Image*, *2*(3), 285–297. <http://doi.org/10.1016/j.bodyim.2005.06.002>
- Bowlby, J. (1969). *Attachment: Attachment and loss*. Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Sadness and depression* (3rd ed.). Basic Books.
- Calogero, R. M., & Thompson, J. K. (2010). Gender and body image. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (pp. 153-184). Springer.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates .
- DeGeneres, E. (2011). *Seriously... I'm kidding*. Grand Central Publishing.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. <https://doi.org/10.3758/BF03193146>.
- Foster, J. D., Kernis, M. H., & Goldman, B. M. (2007). Linking adult attachment to self-esteem stability. *Self and Identity*, *6*(1), 64-73.
<https://doi.org/10.1080/15298860600832139>
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships — relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, *23*(3), 615–625. <https://doi.org/10.1037/a0022898>

- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of general psychology*, 4(2), 132-154. <https://doi.org/10.1037/1089-2680.4.2.132>
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, 18(3), 233–239. <https://doi.org/10.1111/j.1467-9280.2007.01882.x>
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39(3), 281-291. <https://doi.org/10.1017/S0048577201393198>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511–524. <https://doi.org/10.1037/0022-3514.52.3.511>
- Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry*, 5(1), 1–22. https://doi.org/10.1207/s15327965pli0501_1
- Homan, K. J., & Tylka, T. L. (2015). Self-compassion moderates body comparison and appearance self-worth's inverse relationships with body appreciation. *Body Image*, 15, 1–7. <https://doi.org/10.1016/j.bodyim.2015.04.007>
- Hupfeld, J. & Ruffieux, N. (2011). Validierung einer deutschen Version der Self-Compassion Scale (SCS-D). *Zeitschrift für Klinische Psychologie und Psychotherapie*, 40(2), 115–123. <https://doi.org/10.1026/1616-3443/a000088>
- Iannantuono, A. C., & Tylka, T. L. (2012). Interpersonal and intrapersonal links to body appreciation in college women: An exploratory model. *Body Image*, 9, 227–235. <http://dx.doi.org/10.1016/j.bodyim.2012.01.004>
- Johnson, T. P. (2014). Snowball sampling: introduction. *Wiley StatsRef: Statistics Reference Online*. <https://doi.org/10.1002/9781118445112.stat05720>
- Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: the implications of treating oneself kindly. *Journal of personality and social psychology*, 92(5), 887. <https://doi.org/10.1037/0022-3514.92.5.887>


- Li, X., & Zheng, X. (2014). Adult attachment orientations and subjective well-being: Emotional intelligence and self-esteem as moderators. *Social Behavior and Personality: an international journal*, 42(8), 1257-1265.
<https://doi.org/10.2224/sbp.2014.42.8.1257>
- Mackintosh, K., Power, K., Schwannauer, M., & Chan, S. W. Y. (2017). The Relationships between self-compassion, attachment and interpersonal problems in clinical patients with mixed anxiety and depression and emotional distress. *Mindfulness*, 9(3), 961–971. <https://doi.org/10.1007/s12671-017-0835-6>
- Manaf, N. A., Saravanan, C., & Zuhrah, B. (2016). The prevalence and inter-relationship of negative body image perception, depression and susceptibility to eating disorders among female medical undergraduate students. *Journal of clinical and diagnostic research*, 10(3). <https://doi.org/10.7860/jcdr/2016/16678.7341>
- Mikulincer, M., & Shaver, P. R. (2007). *Adult attachment: Structure, dynamics and change*. Guilford University Press.
- Naderifar, M., Goli, H., & Ghaljaie, F. (2017). Snowball sampling: A purposeful method of sampling in qualitative research. *Strides in Development of Medical Education*, 14(3), 1-6. <https://doi.org/10.5812/sdme.67670>
- Neely, M. E., Schallert, D. L., Mohammed, S. S., Roberts, R. M., & Chen, Y.-J. (2009). Self-kindness when facing stress: The role of self-compassion, goal regulation, and support in college students' well-being. *Motivation and Emotion*, 33(1), 88–97. <https://doi.org/10.1007/s11031-008-9119-8>
- Neff, K. D. (2003a). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, 2(2), 85–101.
<https://doi.org/10.1080/15298860309032>
- Neff, K. D. (2003b). The development and validation of a scale to measure self-compassion. *Self and Identity*, 2(3), 223–250. <http://dx.doi.org/10.1080/15298860309027>
- Neff, K. D. (2016). The self-compassion scale is a valid and theoretically coherent measure of self-compassion. *Mindfulness*, 7(1), 264-274.
<https://doi.org/10.1007/s12671-015-0479-3>.
- Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of clinical psychology*, 69(1), 28-44.
<http://dx.doi.org/10.1002/jclp.21923>

- Neff, K. D., & McGehee, P. (2009). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity*, 9(3), 225–240. <https://doi.org/10.1080/15298860902979307>.
- Pascuzzo, K., Cyr, C., & Moss, E. (2013). Longitudinal association between adolescent attachment, adult romantic attachment, and emotion regulation strategies. *Attachment & human development*, 15(1), 83-103. <http://dx.doi.org/10.1080/14616734.2013.745713>
- Pepping, C. A., Davis, P. J., O'Donovan, A., & Pal, J. (2014). Individual differences in self-compassion: The role of attachment and experiences of parenting in childhood. *Self and Identity*, 14(1), 104–117. <https://doi.org/10.1080/15298868.2014.955050>
- Piazzoli, E. C. (2015). Translation in cross-language qualitative research: Pitfalls and opportunities. *Translation and Translanguaging in Multilingual contexts*, 1(1), 80-102. <https://doi.org/10.1075/tmc.1.1.04pia>
- Qualtrics. (2021). *The most sophisticated online survey platform on the planet*. https://www.qualtrics.com/lp/survey-platform/?utm_medium=cpc&utm_campaign=survey%20software&utm_source=fo
- Raque-Bogdan, T. L., Ericson, S. K., Jackson, J., Martin, H. M., & Bryan, N. A. (2011). Attachment and mental and physical health: Self-compassion and mattering as mediators. *Journal of Counseling Psychology*, 58(2), 272–278. <https://doi.org/10.1037/a0023041>
- Raque-Bogdan, T. L., Piontkowski, S., Hui, K., Ziemer, K. S., & Garriott, P. O. (2016). Self-compassion as a mediator between attachment anxiety and body appreciation: An exploratory model. *Body Image*, 19, 28- 36. <https://doi.org/10.1016/j.bodyim.2016.08.001>
- Sharma, G. (2017). Pros and cons of different sampling techniques. *International journal of applied research*, 3(7), 749-752.
- Swami, V., von Nordheim, L., & Barron, D. (2016). Self-esteem mediates the relationship between connectedness to nature and body appreciation in women, but not men. *Body image*, 16, 41-44. <https://doi.org/10.1016/j.bodyim.2015.11.001>
- Tantleff-Dunn, S., & Gokee, J. L. (2002). Interpersonal influences on body image development. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 108–116). Guilford Press.

- Tiggemann, M., & McCourt, A. (2013). Body appreciation in adult women: Relationships with age and body satisfaction. *Body image, 10*(4), 624-627.
<https://doi.org/10.1016/j.bodyim.2013.07.003>
- Tylka, T. L. (2012). Positive psychology perspectives on body image. *Encyclopedia of Body Image and Human Appearance, 657–663*.
<https://doi.org/10.1016/B978-0-12-384925-0.00104-8>
- Tylka, T. L., & Wood-Barcalow, N. L. (2015). The Body Appreciation Scale-2: item refinement and psychometric evaluation. *Body image, 12*, 53-67.
<http://dx.doi.org/10.1016/j.bodyim.2014.09.006>
- UCLA Institute for Digital Research and Education (IDRE). (n.d.). How can I compute indirect effects with imputed data? UCLA: Statistical Consulting Group.
<https://stats.idre.ucla.edu/stata/faq/how-can-i-compute-indirect-effects-with-imputed-data-method-2/>
- van den Brink, F., Smeets, M. A., Hessen, D. J., & Woertman, L. (2015). Positive body image and sexual functioning in Dutch female university students: The role of adult romantic attachment. *Archives of Sexual Behavior, 45*(5), 1217-1226.
<https://doi.org/10.1007/s10508-015-0511-7>
- Wasylikiw, L., MacKinnon, A. L., & MacLellan, A. M. (2012). Exploring the link between self-compassion and body image in university women. *Body Image, 9*, 236–245.
<http://dx.doi.org/10.1016/j.bodyim.2012.01.007>
- Wei, M., Liao, K. Y., Ku, T. Y., & Shaffer, P. A. (2011). Attachment, self-compassion, empathy, and subjective well-being among college students and community adults. *Journal of Personality, 79*(1), 191–221.
<https://doi.org/10.1111/j.1467-6494.2010.00677.x>
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of personality assessment, 88*(2), 187-204.
<https://doi.org/10.1080/00223890701268041>

Appendix A

Informed Consent

English 

Informed Consent

Welcome!

Thank you for your interest in this study which focuses on positive body image. This research is part of my master thesis in clinical psychology at Utrecht University.

Please keep in mind that you need to be female and 18-35 years old if you would like to participate.

The questions in the online survey study address feelings you have towards yourself and your body. It also concerns your feelings and behaviours in romantic relations. Filling out the questions will approximately take 15 - 20 minutes.

Your information is kept confidential and anonymity of your data is guaranteed. Additionally, your data is solely used for the purpose of this study. You are able to withdraw from this study at any point without justifying your decision.

If you encounter any questions throughout the study, or have any questions or concerns in general, please feel free to contact me (s.volker@students.uu.nl). You can also email an independent contact not involved in the current study (klachtenfunctionaris-fetcsocwet@uu.nl).

I am female and between 18 - 35 years old. I hereby declare that I have read and understood the information given above, and I decide to voluntarily participate in this study.

Yes, I do consent.

No, I do not consent.

Appendix B

Demographics

Demographics

How old are you?

What is your nationality?

- Dutch
- German
- British
- Other European nationality
- None European nationality

What is your (main) occupation?

- I am working.
- I am a student.
- I am doing a gap year.
- Other

What is your highest degree of education (current or completed)?

- High School
- Bachelor
- Master
- PhD
- Other

What is your sexual orientation?

- Heterosexual
- Homosexual
- Bisexual
- Other

Are you currently in a romantic relationship?

- Yes
- No

What is the duration of your relationship?

- less than one month
- one to six months
- six months to one year
- one to two years
- longer than two years

What is your living situation with your partner?

- I am not living with my partner.
- I am living together with my partner.
- We are engaged, and we live together.
- We are engaged, and we do not live together.
- We are married, and we live together.
- We are married, and we do not live together.
- Other

Were you ever involved in a romantic relationship?

- Yes
- No

Appendix D

BAS-2

	Never	Seldom	Sometimes	Often	Always
1. I respect my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel good about my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I feel that my body has at least some good qualities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I take a positive attitude towards my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am attentive to my body's needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel love for my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I appreciate the different and unique characteristics of my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My behaviour reveals my positive attitude toward my body; for example, I hold my head high and smile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I am comfortable in my body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I feel like I am beautiful even if I am different from media images of attractive people (e.g., models, actresses/actors).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix E

SCS

	Almost Never	Seldom	Occasionally	To a Considerable Degree	Almost Always
1. I'm disapproving and judgmental about my own flaws and inadequacies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I try to be loving towards myself when I'm feeling emotional pain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. When I fail at something important to me I become consumed by feelings of inadequacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. When times are really difficult, I tend to be tough on myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. When something upsets me I try to keep my emotions in balance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I'm intolerant and impatient towards those aspects of my personality I don't like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. When I'm going through a very hard time, I give myself the caring and tenderness I need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 14. When something painful happens I try to take a balanced view of the situation. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. I try to see my failings as part of the human condition. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. When I see aspects of myself that I don't like, I get down on myself. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. When I fail at something important to me I try to keep things in perspective. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. I'm kind to myself when I'm experiencing suffering. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20. When something upsets me I get carried away with my feelings. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 22. When I'm feeling down I try to approach my feelings with curiosity and openness. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 23. I'm tolerant of my own flaws and inadequacies. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 24. When something painful happens I tend to blow the incident out of proportion. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 25. When I fail at something that's important to me, I tend to feel alone in my failure. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 26. I try to be understanding and patient towards those aspects of my personality I don't like. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |