

The Relationship Between Romantic Attachment, Quality of Life and Self-Esteem in Young Adults

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Thesis Project

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February 1, 2022

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Abstract

Evidence suggests that adult romantic attachment could be reflected in the quality of life, with self-esteem acting as a contributing factor. The aim of the research is to investigate the relationships between adult romantic attachment, quality of life, and self-esteem and the mediation effect of attachment and lack of self-esteem in young adults. A sample of 144 international college students (38 male, 102 female, 4 non-binary; Mean age 21.63, SD=1.63) was recruited online and completed the digitized questionnaires for demographics, romantic attachment, self-esteem, and quality of life. Participation was voluntary and withdrawal was possible at any time. Mediation analyses were conducted for Self-Esteem (mediator) between Attachment types (predictor) and Quality of life (h1) and for Attachment (mediator) between Self-Esteem (predictor) and Quality of Life; multiple regression between Attachment types (predictors) and Quality of Life (h3) and an independent samples t-test between attachment types and Quality of Life (h4). Results revealed significant mediation of self-esteem (lack of) between attachment and quality of life and a mediation effect of avoidant attachment between self-esteem and quality of life. Only Avoidant Attachment predicted quality of life, in which participants with anxious attachment scored higher levels compared to those with avoidant attachment. Findings contribute to our understanding of the individuals' subjective experiences and provide insight into different aspects that could be addressed in clinical practice. Limitations in terms of measurements' lack of heterogeneity were acknowledged, and future research designs are suggested regarding sample recruitment, and measurement approaches.

Introduction

Evidence suggests that the attachment style of adult individuals could be reflected in the quality of their relationships and act as a distinct aspect of the foundation of romantic relationships (Pietromonaco & Beck, 2019). Specifically, partners who have secure attachments tend to form healthier interactions with each other and therefore have a more substantiated relationship. In contrast, partners with insecure attachment types, such as anxiety-based and/or avoidance-based attachment styles, tend to be associated with compromised factors of quality of life (e.g. physical, mental, and social) (Pietromonaco & Beck, 2019).

Furthermore, the partners' quality of life, which is the subjective experience of one's overall approach and disposition to life, is influenced by the combination of personal and interpersonal aspects that include health-related and psychological aspects (Darban et al., 2020). Individuals with insecure attachment styles in their interpersonal relationships have been found to present poorer overall psychological and health-related well being (Darban et al., 2020), in contrast to individuals with secure attachment, who tend to have a higher quality of life and more proactive behaviors (Huntsinger & Luecken, 2004). Under that scope, research has suggested that compromised attachment styles may negatively influence the individual's capability to form a well-balanced life in general (Darban et al., 2020; Huntsinger & Luecken, 2004).

Moreover, the individual's self-esteem, which is the subjective notion of self-regard and worth, appears to be influenced by one's attachment (Yasemin Erol & Orth, 2016). Specifically, it has been shown that partners with higher self-esteem tend to experience healthier relationships and overall satisfaction with their significant other (Yasemin Erol & Orth, 2016), as opposed to individuals with insecure

attachment styles and lower self regard (Doinita, 2015). However, other research suggested that only anxious attachment style could be related to low self-esteem and not avoidant attachment (Foster et al., 2007).

Additionally, self-esteem has been regarded as a contributing factor in developing a better quality of life. To be specific, individuals with higher self regard levels tended to experience more fulfilling work-related outcomes, improved physical states, and overall better mental health, thus contributing to a more beneficial way of life on a personal and interpersonal level (Yasemin Erol & Orth, 2016). On the other hand, lack of self esteem has been found to predict poorer subjective well-being in regards to overall mental health stability (Shen et al., 2021), quality of life, and happiness in general (Mohammad, 2008).

Interestingly, further research has suggested self-esteem to be a distinct mediating factor between relationships' attachment and overall mental health quality (Marrero-Quevedo et al., 2018). That means, lack of self-esteem, combined with insecure attachment styles, could predict lower levels of quality of life, although further evidence has suggested that the relationships could be re-expressed in terms of attachment serving as a mediator between self-esteem and quality of life (Shenet al., 2021).

Due to a lack of research, the purpose of the study is to contribute to our understanding of the individuals' subjective experiences and to address the literature gaps by providing insight on the relationship between romantic attachment, self-esteem, and quality of life in college students.

Theoretical Framework

Attachment style

Attachment could be characterized as a profound psychological milestone in an individual's efforts to relate to other people. According to Bowlby (1969), from an early age, since language acquisition has not yet been developed, infants tend to develop particular sets of communication skills in order for their caregiver to be aware of the infant's primary needs. The importance of the parent's response was primarily emphasized due to its possible impact on the later parent-infant bond facilitation (Bowlby, 1969). Based on research conducted by Ainsworth et al. (1978), infants' behavioral responses may be differentiated into different categories during the caregiver's absence: a) secure attachment, in which the infant's notion of security and safety towards the caregiver has been created and a loving relationship is established; b) anxious-resistant insecure attachment, in which the infant would exhibit an overwhelming number of distressed emotional responses and a higher difficulty in regulating their emotions; c) the anxious-avoidant attachment style, in which the infant shows little to no signs of normal distress, appears unengaged in general, avoids communicating with their parents, and manages their attention elsewhere by ignoring other people (Ainsworth et al., 1978).

According to Hazan and Shaver (1987), it was suggested that similar behavioral expressions and responses encountered in the aforementioned attachment styles would later manifest themselves in the individual's romantic relationships. In later romantic relationships, reduced levels of distress in relationships and a low desire to resist proximity may be associated with secure attachment (Brennan et al., 1998). Regarding insecure attachment, anxiety-based attachment could be

characterized by a high degree of distress in interpersonal relationships and a low desire to resist proximity, while avoidance-based attachment styles could be characterized by elevated levels of fear and aversion to any kind of interpersonal intimacy and proximity (Brennan et al., 1998).

Quality of Life and attachment

According to the World Health Organisation (WHO), quality of life is defined as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" (World Health Organisation, n.d.). Adding to that, the combination of personal and interpersonal aspects that include health-related and psychological aspects (Darban et al., 2020) could be considered a more clinical perspective on the matter of an individual's quality of life.

Regarding interpersonal relationships, the attachment basis could be considered as a fundamental contributor to the individuals' quality of life. According to Pietromonaco and Beck (2019), insecure attachment styles may be associated with the manifestation of various psycho-physiological problems. Individuals with insecure attachment styles in their interpersonal relationships were found to have lower overall psychological and health-related well-being in their daily lives (Darban et al., 2020), including in student populations (Turan et al., 2016); in contrast, individuals with a secure attachment formation basis appeared to have higher quality of life estimation and proactive behaviors (Huntsinger & Luecken, 2004). Evidence has indicated that either anxious attachment or avoidant attachment could be related to maladaptive stress responses, impulsive behavior, proneness to physical ailments, and decreased recuperation span from them (Pietromonaco & Beck, 2019). Under that scope,

research has been suggested that compromised attachment styles may negatively influence the individual's capability to lead a well-balanced life in general (Darban et al., 2020; Huntsinger & Luecken, 2004).

Self esteem and attachment style

Based on Rosenberg (1965), self-esteem refers to one's overall subjective perception and assessment of one's own thoughts and feelings as well as one's positive or negative attitude towards themselves. Furthermore, self-esteem may be considered as a psychological/personality aspect that contributes to the evaluation and judgment of one's own position in a given circumstance (personal or interpersonal) (Alesi et al., 2012).

Regarding interpersonal/romantic relationships, self-esteem has been found to impact the overall quality of the relationship. According to Yasemin Erol & Orth (2016), the subjective notion of self-regard/worth could be influenced by the attachment basis in a person's relationships. Specifically, it was shown that partners who consider themselves with positive regard tend to experience healthier relationships and overall satisfaction with their significant other (Yasemin Erol & Orth, 2016), as opposed to individuals who experience insecure attachment styles and lower self-regard (Doinita, 2015).

However, other research suggested that only anxiety-based insecure attachment style could be related to low self-esteem and not avoidant attachment (Foster et al., 2007). Additionally, previous research has even suggested a non-existent relationship between the two concepts, with self-esteem not predicting the quality of relationships (Baumeister et al., 2003). Under that scope, the relationship

between self-esteem and insecure attachment, on the basis of which is influenced and to what extent the individual's life quality is impacted, is still unclear.

Self esteem and Quality of life

Self-esteem has been regarded as a contributing factor in developing a quality of life in several domains. To be specific, individuals who reported higher levels of self-regard tended to experience more fulfilling work-related outcomes, improved physical states, and overall better mental health, thus contributing to a more beneficial way of life on a personal and interpersonal level (Yasemin Erol & Orth, 2016). On the other hand, low self-esteem has been found to be a contributing factor to predicting poorer subjective well-being in regards to overall mental health stability (Shen et al., 2021).

Further evidence has been provided by a study aimed at investigating the relationship between self-esteem and quality of life in college students. According to Mohammad (2008), there was a statistically significant relationship between self-esteem levels and quality of life, with lower scores of self-esteem predicting lower levels of aspects of quality of life and happiness in general, with the results presenting no differences between male and female participants (Mohammad, 2008).

Self esteem as mediator

According to Marrero-Quevedo et al. (2018), evidence suggests the notion of self-esteem being considered as a distinct mediating factor between relationship attachment and the overall quality of mental health. Based on their research, it was suggested that lower scores on self-esteem, combined with lower scores on either

insecure attachment styles, could predict lower levels of quality of life in several domains (Marrero-Quevedo et al., 2018). On the contrary, according to Kaprale (2014), individuals that formed secure attachments presented higher scores on self-esteem and showed greater satisfaction with life (Kaprale, 2014).

However, further evidence has suggested that the relationships could be re-expressed through the scope of attachment as a mediator between self-esteem and quality of life. According to Shen et al. (2021), both anxious and avoidant attachment styles mediated the relation between self-esteem and aspects of psychological well-being, with lower levels of self-esteem predicting higher levels of insecure attachment, which in turn impacted overall mental health outcomes (Shen et al., 2021). However, due to a lack of additional research, such a notion needs to be further investigated.

Research Aim

Thus, the aim of the research is to investigate the relationships between adult attachment in romantic relationships, quality of life and self-esteem. Specifically, the potential mediation effect of self-esteem in the relationships between romantic attachment and quality of life as well as the mediating effect of romantic attachment between self-esteem and quality of life will be investigated. Finally, the potential discrepancy between participants' romantic attachment types in the overall quality of life will be investigated.

The purpose of this study is to contribute to our understanding of the subjective experiences of individuals, which in turn may provide insight to clinicians on the different aspects that could be addressed in clinical practice.

Research hypotheses

H1: Self-esteem (lack of) will significantly mediate the relationship between romantic attachment and quality of life. Attachment style (anxiety/avoidance) is the predictor variable, self-esteem the mediator and quality of life the dependent variable.

H2: Attachment style will significantly mediate the relationships between Self-Esteem (lack of) and Quality of life. Self-esteem (lack of) is the predictor, Attachment (anxiety/avoidance) is the mediator and Quality of life the dependent variable.

H3: Attachment styles (anxious/avoidant) will predict low scores of Quality of life. Attachment types are the predictors and Quality of Life the dependent variable.

H4: There will be significant difference in the mean score of quality of life between participants with Anxious and Avoidant attachment. Attachment style is the independent variable and Quality of Life the dependent variable.

Method

Design.

A combination quantitative within and between subjects design will be used. Anxious Attachment, Avoidant Attachment, Self-Esteem (lack of) and Quality of life were the chosen variables related to the hypotheses testing and were measured in continuous scales. Participants' Age was also used for sample analysis. Attachment style served as the predictor, Self-Esteem (lack of) as mediator and Quality of Life as the dependant variable in the first hypothesis whereas in the second Attachment was the mediator and Self-Esteem (lack of) as the predictor. Also, Attachment styles served as predictors (h3) and grouping factor (h4) and Quality of Life as the dependant variable in both.

Participants.

The sample consisted of 144 international students (38 male, 102 female, 4 non-binary) from the department of Social and Behavioral Sciences at Utrecht University with an age range from 21 to 24 years old ($M=21.63$, $SD=1.63$). Participants were recruited over the internet through Utrecht University's online platform and were requested to complete a digitized questionnaire (Qualtrics) that was provided through an open invitation. Participant's age and unfinished questionnaires were considered as the exclusion criteria. This study was part of a larger project investigating the relationship between romantic relationships, attachment, self-esteem and quality of life and included several additional variables

Instruments.

Demographics Questionnaire: A demographics questionnaire was developed to capture additional variables such as participant's age and gender (see Appendix A).

Experience in Close Relationships Scale (ECR-R) (Fraley et al., 2000): The ECR-R measures individuals on two subscales of attachment, avoidance and anxiety, and consists of 36 items. Individuals with Avoidant Attachment are uncomfortable with closeness and prefer independence whereas people with Anxious Attachment are afraid of rejection and abandonment (Fraley et al., 2000). Answers are measured on a 7-point Likert scale, from 1 = totally disagree to 5 = Almost Always. The overall score of each dimension is derived by averaging the items' score of each dimension after the relevant reversed items have been recorded. Low scores indicate securely attached individuals, whereas high scores indicate attachment insecurity difficulties, specifically in relation to anxiety and avoidance. Reliability for each dimension is established with $\alpha=.93$ for anxiety and $\alpha=.95$ for avoidance (.70 being the lowest desirable threshold) (see Appendix A).

Rosenberg Self Esteem Scale (Rosenberg, 1965): The scale is comprised with 10 items that assess self-esteem levels. It is a unidimensional scale and all items are measured in a four-point Likert scale ranging from strongly agree to strongly disagree (Rosenberg, 1965). The scale's internal consistency was found reliable and estimated to be .77, with a minimum coefficient of reproducibility at least 0.90. Higher scores indicate lack of self esteem (see Appendix A).

Quality of Life Scale (QOL) (Burckhardt et al., 1989; Flanagan, 1978): The QOLS is a 16-item instrument that measures five conceptual domains of quality of life: material and physical well-being, relationships with other people, social, community and civic activities, personal development and fulfillment, recreation and independence. All items are measured on a 7-point Likert scale ranging from

7="delighted" to 1="terrible". Scores are added to obtain one overall score or three scores for, a) relationships and material well being, b) health and functioning, and c) personal, social and community commitment. Higher overall scores indicate higher overall quality of life (Burckhardt et al., 1989; Flanagan, 1978) (see Appendix A). Regarding the scale's reliability and internal consistency, it is found to be reliable with a Cronbach's α ranging from $\alpha = .82$ to $.92$.

Data Collection Procedure.

Participants were requested to voluntarily complete a digitized form (Qualtrics) of the four questionnaires which was provided through an open invitation through Utrecht University's online platform in the department of Social and Behavioral Sciences. Participant's information sheets and a consent form (see Appendix H) were provided to read about the study. After completion, all data were imported into a statistical analysis software (SPSS) for further analysis.

Ethical Considerations.

Ethics approval was obtained under number 21-2088 by the Ethical Review Board of the Faculty of Social and Behavioural Sciences of Utrecht University before the study commenced. Data confidentiality was ensured by fully abiding by the rules and regulations of GDPR (2018) and Utrecht University's research conduct policy including ethical aspects, data management and privacy issues. Participation was voluntary and withdrawal from participation was possible at any time throughout the procedure by exiting the platform.

Data analysis.

Concordant with the study's aim, four mediation analyses were conducted via the fourth model of the PROCESS macro for mediation procedures (Hayes, 2013) in SPSS. A bootstrap of 10000 re-samples leeway was used for the estimation of the mediating effect of Self-Esteem (lack of) between Attachment (predictor) and Quality of Life (dependent) in the first hypothesis and Attachment (anxious/avoidant) between Lack of Self-Esteem (predictor) and Quality of Life (dependent) in H2, after taking into consideration the minimum recommended amount of 5000 re-samples (Hayes, 2009) (the higher the number the more reliable the result). Secondly, a multiple regression was used with Attachment styles as predictors and Quality of Life as dependent variable. Lastly, an independent samples t-test was implemented with Attachment styles as a grouping factor and Quality of Life as the dependent variable. Additionally, descriptive statistics were estimated for all variables including participants' age so as to discover means/Standard deviations.

Results

Means and standard deviations were calculated for the variables (table 1) participants' mean age was 21.63. Anxious and Avoidant attachments had low scores of $M=3.25$ with a $SD=1.00$ for Anxious Attachment and $M=2.99$ with a $SD=1.08$ for Avoidant Attachment indicating a low diversified range (1.00 being considered a low score and 7.00 high score).

Table 1

Means and standard deviations for Age, Attachment dimensions, Self-Esteem and Quality of Life.

Variables	<i>M</i>	<i>SD</i>
Age	21.63	1.63
Anxiety Attachment	3.25	1.00
Avoidance Attachment	2.99	1.08
Self-Esteem	20.93	4.79
Quality of Life	84.94	11.57

Initially, regarding the scales' reliability and internal consistency, Cronbach's α test was used for all questionnaires (see Appendix F). For the experiences in close relationships scale, Anxiety Attachment revealed an $\alpha=.89$ and for Avoidance attachment $\alpha=.94$. For the self-esteem scale, Chronbach's α test revealed $\alpha=.88$ and for the quality of life questionnaire $\alpha=.83$.

With regard to homogeneity of variances, histogram graphs were used for all variables (Anxiety attachment, Avoidant Attachment, Self-Esteem and Quality of Life) and all measurements appeared to reside under the normal curve. In order to

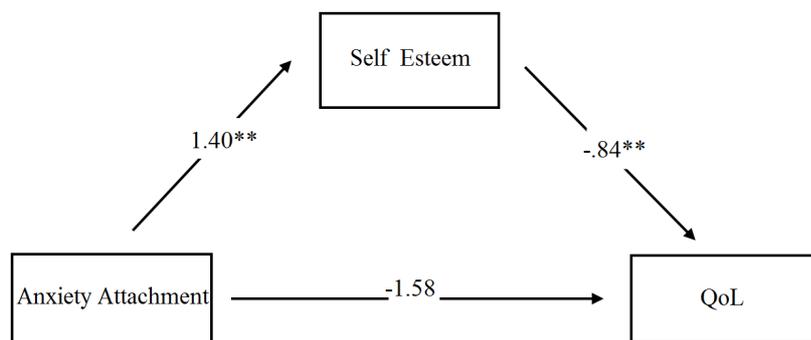
establish normality, Box plot graphs were estimated for all variables and no significant outliers were observed (see Appendix A).

Hypothesis 1

For the first mediation, Anxious Attachment was used as the predictor variable, Self-Esteem as the mediator and quality of life as the dependent variable (see Appendix B). Results of the mediation analysis found a statistically significant relation between Anxious Attachment and lack of Self-Esteem ($B=1.40$, $SE=.38$, $t(142)=3.68$, $p<.001$) and between lack of Self-Esteem and Quality of life ($B=-.84$, $SE=.19$, $t(141)=-4.30$, $p<.001$). Anxious Attachment was not significantly related to Quality of life ($B=-1.58$, $SE=.93$, $t(141)=-1.71$, $p>.05$). The indirect effect of the model was statistically significant ($B=-1.17$, $SE=.50$, 95% CI [-2.32, -.38]) but the direct effect was not ($B=-1.58$, $SE=.93$, 95% CI [-3.41, .25]). Thus it could be concluded that there was a statistically significant partial mediation (Figure1)

Figure 1.

Mediation model with regression coefficients for the relationship between Anxious Attachment and Quality of Life, mediated by Self-Esteem.

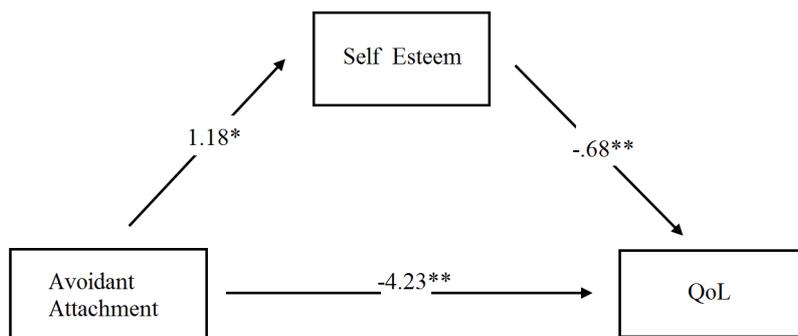


Note. **= $p<.001$

For the second mediation avoidant attachment was used as the predictor variable self-esteem as mediator and quality of life as the dependent variable. Results of the mediation analysis found a statistically significant relation of Attachment Avoidance to Self-Esteem (lack of) ($B=1.18$, $SE=.36$, $t(142)=3.28$, $p<.001$) and that there was a statistically significant relation between Self-Esteem (lack of) and Quality of Life ($B=-.68$, $SE=.18$, $t(141)=-3.84$, $p<.001$). Furthermore, Avoidant Attachment was significantly related to Quality of Life ($B=-4.23$, $SE=.79$, $t(141)=-5.36$, $p<.001$). Both indirect and direct effects of the model were statistically significant with the indirect effect ($B=-.80$, $SE=.37$, 95% CI [-1.63, -.20]) and the direct effect ($B=-4.23$, $SE=.79$, 95% CI [-5.79, -2.67]). Thus it could be concluded that there was a statistically significant full mediation (Figure 2).

Figure 2.

Mediation model with regression coefficients for the relationship between Avoidant Attachment and Quality of Life, mediated by Self-Esteem.



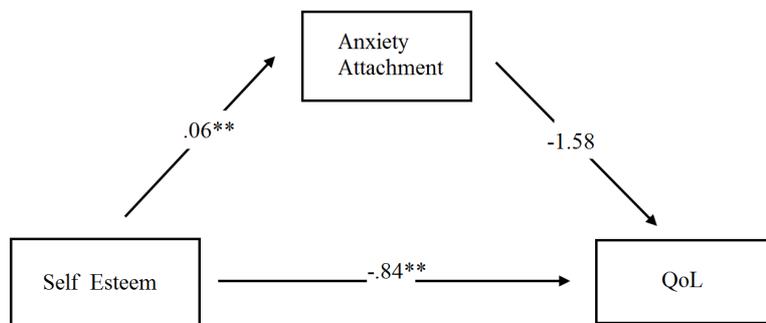
Note. **= $p<.001$

Hypothesis 2

For the first mediation, Lack of Self-Esteem was used as the predictor variable, Anxious Attachment as the mediator and Quality of Life as the dependent variable (see Appendix C). Results of the mediation analysis found that there was a significant relation between Lack of Self-Esteem and Anxious Attachment ($B=.06$, $SE=.02$, $t(142)=3.68$, $p<.001$) but not a significant relation between Anxious Attachment and Quality of life ($B=-1.58$, $SE=.93$, $t(141)=-1.71$, $p>.05$). Furthermore, Lack of Self-Esteem was significantly related to Quality of Life ($B=-.84$, $SE=.20$, $t(141)=-4.30$, $p<.001$). The indirect effect was not statistically significant ($B=-.10$, $SE=.06$, 95% CI $[-.23, .01]$) whilst the direct effect was ($B=-.84$, $SE=.19$, 95% CI $[-1.22, -.45]$). Thus there was no significant mediation in the model (Figure 3).

Figure 3.

Mediation model with regression coefficients for the relationship between Self-Esteem and Quality of Life, mediated by Anxious Attachment.



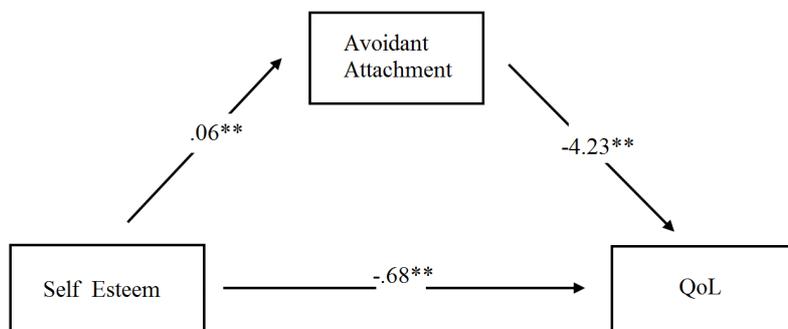
Note. **= $p<.001$

For the second mediation, Lack of Self-Esteem was used as the predictor variable, Avoidant Attachment as the mediator and Quality of Life as the dependent variable (see Appendix C). Results of the mediation analysis revealed that there was a significant relation between Lack of Self-Esteem and Avoidant Attachment ($B=.06$, $SE=.02$, $t(142)=3.28$, $p<.05$) and between Avoidant Attachment and Quality

of life ($B=-4.23$, $SE=.79$, $t(141)=-5.36$, $p<.001$). Furthermore, Lack of Self-Esteem was statistically significantly related to quality of life ($B=-.68$, $SE=.18$, $t(141)=-3.84$, $p<.001$). Both indirect and direct effects of the model were statistically significant with the indirect effect ($B=-.25$, $SE=.10$, 95% CI $[-.46, -.10]$) and the direct effect ($B=-.68$, $SE=.18$, 95% CI $[1.03, -.33]$). Thus it could be concluded that there was a statistically significant full mediation (Figure 4).

Figure 4

Mediation model with regression coefficients for the relationship between Self-Esteem and Quality of Life, mediated by Avoidant Attachment.



Note. **= $p<.001$

Hypothesis 3

Concerning the assumption of homoscedasticity, a P-P plot of the standardized residuals was calculated. Results indicated that measurements reside close to the fitted line thus the assumption of homoscedasticity was established. Furthermore, due to low variance inflation factor (VIF) and a higher than .25 tolerance, the assumption of absence of multicollinearity was established (see Appendix D).

For the hypothesis testing, a multiple regression was conducted with Attachment types (Avoidant/Anxious) as the predictor variables of Quality of life. Results of the multiple regression found that the model significantly predicted Quality

of Life ($F(2,143)=20.44, p<.001, R^2=.23$). However, coefficient analysis found that only Avoidant Attachment significantly predicted Quality of life ($B=-4.72, p<.001$) as opposed to Anxious Attachment ($B=-.90, p>.05$).

Hypothesis 4

To investigate the hypothesis, an independent-samples t-test was used (see Appendix E). Results found a statistically significant difference in the mean scores of Quality of Life for the two groups (Anxious attachment / Avoidant Attachment), $t(137)=2.46, p<.05, d=.42$. Those with Anxious Attachment scored higher levels of Quality of Life ($M=87.11, SD=10.43$) compared to students with Avoidant attachment ($M=82.28, SD=12.60$)

Discussion

The aim of the research was to investigate the relationships between romantic adult attachment, quality of life, and subjective self-esteem with the purpose of suggesting a potential explanatory predictive model. Specifically, the potential mediation effect of self-esteem in the relationships between romantic attachment and quality of life as well as the mediating effect of romantic attachment between self-esteem and quality of life were investigated. Finally, the potential discrepancy between participants' romantic attachment types in the overall quality of life was investigated.

For the first hypothesis, a statistically significant mediation model was provided for both attachment styles, with several subsequent relationships being significant. The mediation analysis findings were consistent with previous findings indicating that lack of self-esteem, combined with lower scores on either of the insecure attachment styles, predicts lower levels of quality of life (Marrero-Quevedo et al., 2018). Subsequently, the relationships between Anxious Attachment and lack of self-esteem and Avoidant Attachment and lack of self-esteem appear to be concordant with previous research in which individuals who experience insecure attachment styles and present lower self-esteem (Doinita, 2015; Foster et al., 2007); and contradictory to other research which indicated that only anxiety-based insecure attachment styles are related to low self esteem and not avoidant attachment (Foster et al., 2007). Furthermore, lack of self-esteem appeared to be related to lower levels of Quality of life and the results were consistent with previous research findings indicating that lack of self-esteem could be related to a more diminished quality of life and subjective well being in general (Mohammad, 2008; Shen et al., 2021; Yasemin Erol & Orth, 2016).

For the second hypothesis, only Avoidant attachment yielded a statistically significant mediation effect between lack of self-esteem and Quality of Life. The results appear to be partially in line with previous research that indicated both anxious and avoidant attachment styles would mediate the relation between self-esteem and aspects of psychological well-being, with lack of self esteem predicting higher levels of insecure attachment, which in turn impacted overall mental health outcomes (Shen et al., 2021). In the subsequent relationships, for the relationships between self esteem and either attachment style domain, results appear to challenge previous research which suggested a non-existent relationship between the two concepts, with self-esteem not predicting the quality of relationships (Baumeister et al., 2003). These findings provide further insight into the effect of insecure attachment style domains in combination with self esteem on quality of life.

Regarding the third hypothesis, only Avoidant Attachment style was found to statistically significantly predict Quality of life levels as opposed to Anxiety Attachment. This is partially concordant with past research which indicated that compromised attachment styles may negatively influence the individual's capability to form a well-balanced life in general (Darban et al., 2020; Huntsinger & Luecken, 2004), especially concerning student populations (Turan et al., 2016), such as the sample that was used in the current study. However, regarding Anxious attachment, results appear contradictory to previous findings highlighting that either anxious attachment or avoidant attachment could be related to lower Quality of Life (Pietromonaco & Beck, 2019).

For the fourth hypothesis, an exploratory view on attachment style domains and levels of quality of life was attempted in order to further substantiate results from the previous hypothesis (h3). In this case, there was a significant difference in the

mean scores for Quality of Life between anxious and avoidant attachment, with higher scores on Quality of Life for Anxious compared to Avoidant attachment. The results provide some explanation for the contradictory findings in earlier research that either anxious attachment or avoidant attachment could be related to lower Quality of Life (Pietromonaco & Beck, 2019).

On the matter of the study's potential limitations, several aspects should be considered. First of all, the use of self-reported measures and the impact of perceived social desirability bias may be present. As such, participants could have adjusted their responses to seem more desirable. Such a notion is particularly of interest for further investigation, due to the fact that Quality of life, self-esteem (or lack thereof), and romantic relationship quality may have caused distress and thus provided the appropriate answers to be perceived as socially desirable.

Another potential predicament was encountered by the lack of heterogeneity of the attachment style variables. Specifically, both mediation models may have been affected by the limited variation in the data obtained since the population's levels of anxious and avoidant attachment types may not have been high enough to yield meaningful results.

One more potential limitation would be the sample type used in the study. Although the aim was to investigate the variables' relationship in college students in general, the majority of participants were gathered from the department of social sciences, Clinical Psychology. Thus, a large proportion could be considered a convenience sample. Due to the nature of studies in the particular field, participants may be accustomed to the concepts investigated in the research and therefore provided more compromised or biased answers.

Future research may provide a better understanding of the interactions between romantic attachment styles, self-esteem, and quality of life. Initially, experimental or quasi-experimental designs may offer a more adequate estimation of the relationship between the variables operationalised under a more elaborate scope. For instance, the measurement of quality of life and self-esteem as a multifactorial concept may provide a clearer understanding of which aspects of self-esteem mediate the relationship between Attachment and Quality of life, or which aspects of the individual's quality of life are better predicted by the variables. Further, by incorporating a clinically diagnosed population and a control group, a clearer grasp of a mediation model may be discovered. Additionally, recruiting participants from other fields of study across several different departments and universities may yield further insight and provide more generalizable results across college students. Most importantly, a longitudinal research procedure could be implemented so as to inspect the variables' interaction over time. However, due to potential cost and time-consuming constraints, a cross-sectional study could be implemented alternatively, so as to incorporate and investigate the potential discrepancies at various time points throughout development. Finally, on the matter of participant recruitment, a larger and more heterogeneous sample should be used by incorporating further demographic variables such as age, educational level, socioeconomic status, etc., so as to ensure more efficient external validity and generalisability.

References

- Ainsworth, M. D. S., Blehar, M. C., Waters, E. and Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Erlbaum.
- Alesi, M., Rappo, G., & Pepi, A. (2012). Self-Esteem at school and Self-Handicapping in childhood: Comparison of groups with learning disabilities. *Psychological Reports, 111*(3), 952–962.
<https://doi.org/10.2466/15.10.pr0.111.6.952-962>
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high Self-Esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*(1), 1–44.
<https://doi.org/10.1111/1529-1006.01431>
- Bowlby, J. (1969). *Attachment and loss (Vol. 1: Attachment)*. BasicBooks.
- Brennan, K.A., Clark, C.L., & Shaver, P. (1998). Self-report measures of adult romantic attachment. In J.A Simpson & W.S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford.
- Darban, F., Safarzai, E., Koohsari, E., & Kordi, M. (2020). Does attachment style predict quality of life in youth? A cross-sectional study in iran. *Health Psychology Research, 8*(2). <https://doi.org/10.4081/hpr.2020.8796>
- Doinita, N. E. (2015). Adult attachment, self-esteem and emotional intelligence. *Procedia - Social and Behavioral Sciences, 187*, 570–574.
<https://doi.org/10.1016/j.sbspro.2015.03.106>
- Flanagan, J. C. (1978). A research approach to improving our quality of life. *American Psychologist, 33*(2), 138–147. <https://doi.org/10.1037/0003-066x.33.2.138>

- 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>
- Hayes, A. F. (2009). Beyond baron and kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420.
<https://doi.org/10.1080/03637750903310360>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis, second edition: A Regression-Based approach (methodology in the social sciences)* (Second ed.). The Guilford Press.
- Hazan, C., & Shaver, P. (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>
- Huntsinger, E. T., & Luecken, L. J. (2004). Attachment relationships and health behavior: The mediational role of self-esteem. *Psychology & Health*, 19(4), 515–526. <https://doi.org/10.1080/0887044042000196728>
- Kaprle, V. (2014). *Examining the relationship between adult attachment styles, self-esteem, jealousy and satisfaction with life*. (Bachelors dissertation, Dublin Business School, Ireland). Retrieved from
<https://esource.dbs.ie/handle/10788/2258>
- Marrero-Quevedo, R. J., Blanco-Hernández, P. J., & Hernández-Cabrera, J. A. (2018). Adult attachment and psychological Well-Being: The mediating role of personality. *Journal of Adult Development*, 26(1), 41–56.
<https://doi.org/10.1007/s10804-018-9297-x>
- Mohammad, A. Z. (2008). Quality of life and its relationship with self-esteem in male and female students of isfahan university. *Iranian Journal of Psychiatry &*

Clinical Psychology, 13(4), 416–419. Retrieved from

http://ijpcp.iums.ac.ir/browse.php?a_code=A-10-1-273&sid=1&slc_lang=en

Pietromonaco, P. R., & Beck, L. A. (2019). Adult attachment and physical health.

Current Opinion in Psychology, 25, 115–120.

<https://doi.org/10.1016/j.copsyc.2018.04.004>

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Shen, F., Liu, Y., & Brat, M. (2021). Attachment, Self-Esteem, and psychological distress: A Multiple-Mediator model. *The Professional Counselor*, 11(2), 129–142. <https://doi.org/10.15241/fs.11.2.129>

Turan, N., Kocalevent, R. D., Quintana, S. M., Erdur-Baker, Z., & Diestelmann, J. (2016). Attachment orientations: Predicting psychological distress in German and Turkish samples. *Journal of Counseling & Development*, 94(1), 91–102. <https://doi.org/10.1002/jcad.12065>

World Health Organisation, (n.d.). *Whoqol: Measuring quality of Life*. Retrieved from <https://www.who.int/tools/whoqol>

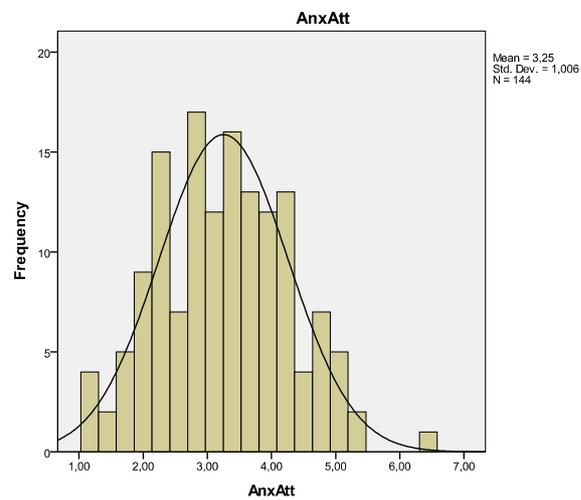
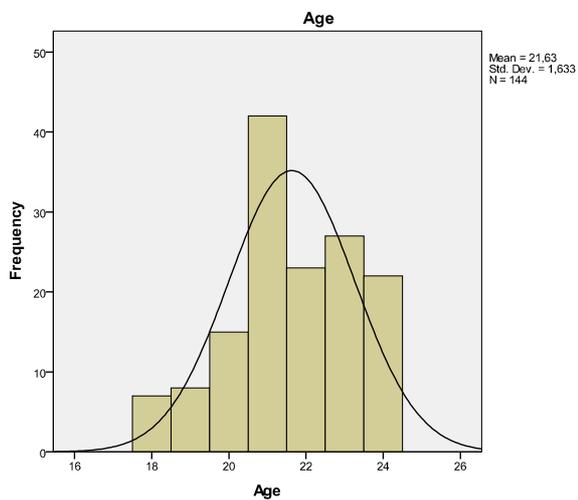
Yasemin Erol, R., & Orth, U. (2016). Self-Esteem and the quality of romantic relationships. *European Psychologist*, 21(4), 274–283. <https://doi.org/10.1027/1016-9040/a000259>

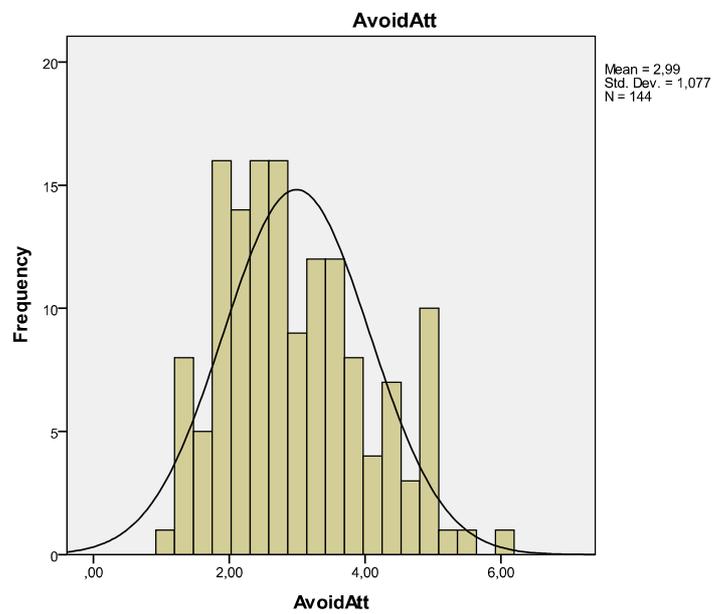
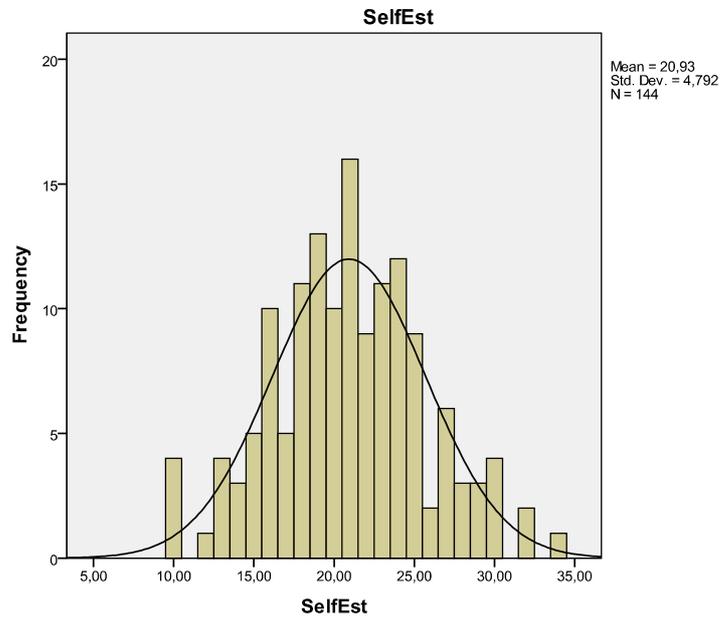
Appendix A

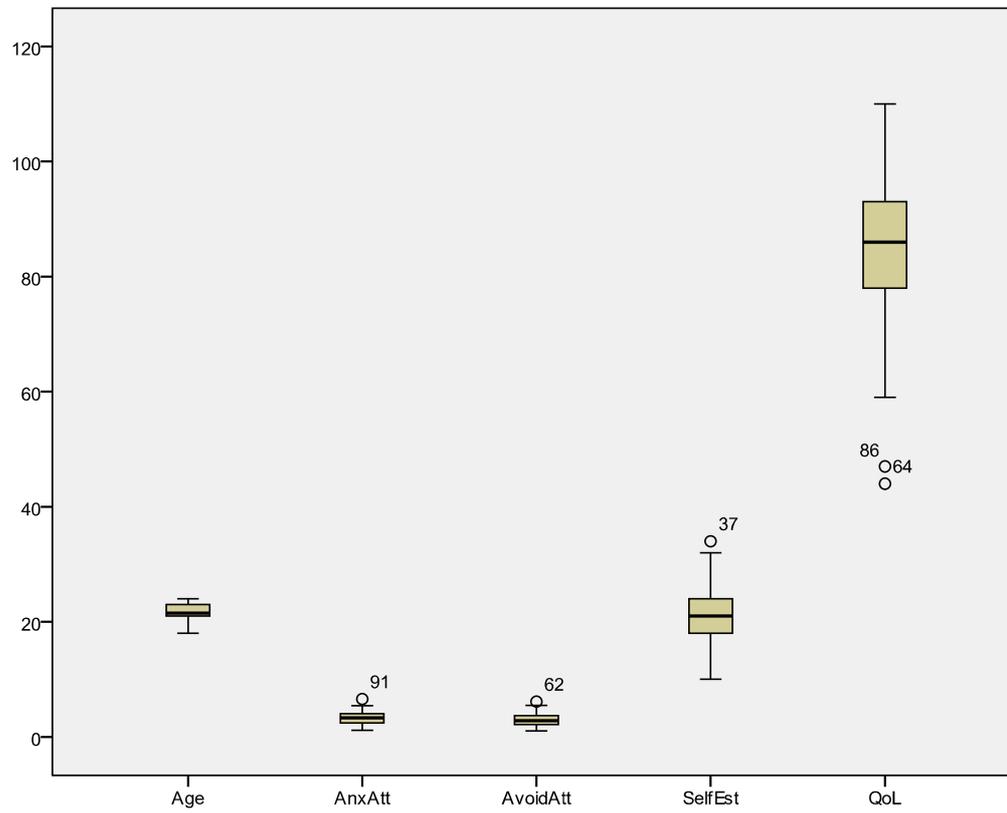
Frequencies, histograms and Box-Plot graphs for Age, Anxious/Avoidant

Attachment, Self-Esteem (lack of) and Quality of Life:

		Statistics				
		Age	AnxAtt	AvoidAtt	SelfEst	QoL
N	Valid	144	144	144	144	144
	Missing	0	0	0	0	0
Mean		21,63	3,2535	2,9896	20,9306	84,9444
Std. Deviation		1,633	1,00591	1,07662	4,79168	11,56543
Skewness		-,317	,198	,540	,089	-,646
Std. Error of Skewness		,202	,202	,202	,202	,202
Kurtosis		-,500	-,107	-,393	-,018	1,026
Std. Error of Kurtosis		,401	,401	,401	,401	,401
Minimum		18	1,17	1,06	10,00	44,00
Maximum		24	6,56	6,11	34,00	110,00







gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	38	26,4	26,4	26,4
Female	102	70,8	70,8	97,2
Non-Binary	4	2,8	2,8	100,0
Total	144	100,0	100,0	

Appendix B

Hypothesis 1: Mediation models

First model: Self-Esteem (mediator), Anxious Attachment (predictor), Quality of Life (dependent)

```
***** PROCESS Procedure for SPSS Version 3.5.3 *****
          Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
          Documentation available in Hayes (2018). www.guilford.com/p/hayes3

*****
Model   : 4
  Y     : QoL
  X     : AnxAtt
  M     : SelfEst

Sample
Size: 144

*****
OUTCOME VARIABLE:
  SelfEst

Model Summary
      R      R-sq      MSE      F      df1      df2
,2952  ,0872  21,1068  13,5570  1,0000  142,0000
,000

Model
      coeff      se      t      p      LLCI      ULCI
constant  16,3553  1,3002  12,5787  ,0000  13,7850  18,9257
AnxAtt    1,4063  ,3819   3,6820  ,0003  ,6513   2,1613

Standardized coefficients
      coeff
AnxAtt  ,2952

*****
```

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,4084	,1668	113,0248	14,1167	2,0000	141,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	107,5759	4,3750	24,5888	,0000	98,9269	116,2250
AnxAtt	-1,5823	,9250	-1,7105	,0894	-3,4110	,2465
SelfEst	-,8353	,1942	-4,3015	,0000	-1,2192	-,4514

Standardized coefficients

	coeff
AnxAtt	-,1376
SelfEst	-,3461

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,2398	,0575	126,9561	8,6627	1,0000	142,0000	,0038

Model

	coeff	se	t	p	LLCI	ULCI
constant	93,9141	3,1889	29,4504	,0000	87,6102	100,2179
AnxAtt	-2,7569	,9367	-2,9433	,0038	-4,6086	-,9053

Standardized coefficients

	coeff
AnxAtt	-,2398

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
-2,7569	,9367	-2,9433	,0038	-4,6086	-,9053	-,2384	-,2398

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-1,5823	,9250	-1,7105	,0894	-3,4110	,2465	-,1368	-,1376

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-1,1747	,4952	-2,3186	-,3847

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-,1016	,0419	-,1975	-,0345

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-,1022	,0425	-,1997	-,0338

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

10000

Second model: Self-Esteem (mediator), Avoidant Attachment (predictor), Quality of Life (dependent).

```
***** PROCESS Procedure for SPSS Version 3.5.3 *****
                Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
                Documentation available in Hayes (2018). www.guilford.com/p/hayes3

*****
Model   : 4
  Y     : QoL
  X     : AvoidAtt
  M     : SelfEst

Sample
Size: 144

*****
OUTCOME VARIABLE:
  SelfEst

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    ,2655    ,0705    21,4924    10,7661    1,0000    142,0000    ,0013

Model
      coeff      se      t      p      LLCI      ULCI
constant  17,3983    1,1437    15,2117    ,0000    15,1373    19,6593
AvoidAtt   1,1815     ,3601     3,2812    ,0013     ,4697     1,8934

Standardized coefficients
      coeff
AvoidAtt    ,2655

*****
```

OUTCOME VARIABLE:

QoL

Model Summary

R	R-sq	MSE	F	df1	df2	p
,5417	,2935	95,8443	29,2846	2,0000	141,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	111,8406	3,9166	28,5555	,0000	104,0977	119,5835
AvoidAtt	-4,2272	,7887	-5,3596	,0000	-5,7864	-2,6680
SelfEst	-,6812	,1772	-3,8441	,0002	-1,0316	-,3309

Standardized coefficients

	coeff
AvoidAtt	-,3935
SelfEst	-,2822

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

QoL

Model Summary

R	R-sq	MSE	F	df1	df2	p
,4684	,2194	105,1435	39,9186	1,0000	142,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	99,9883	2,5297	39,5250	,0000	94,9875	104,9891
AvoidAtt	-5,0321	,7965	-6,3181	,0000	-6,6065	-3,4576

Standardized coefficients

	coeff
AvoidAtt	-,4684

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
-5,0321	,7965	-6,3181	,0000	-6,6065	-3,4576	-,4351	-,4684

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-4,2272	,7887	-5,3596	,0000	-5,7864	-2,6680	-,3655	-,3935

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-,8049	,3715	-1,6346	-,1970

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-,0696	,0325	-,1428	-,0174

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
SelfEst	-,0749	,0344	-,1508	-,0184

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

10000

Appendix C

Hypothesis 2: Mediation models

First Model: Anxious Attachment (mediator), Self-Esteem (predictor), Quality of Life (dependent).

```
***** PROCESS Procedure for SPSS Version 3.5.3 *****
          Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

*****
Model   : 4
  Y     : QoL
  X     : SelfEst
  M     : AnxAtt

Sample
Size: 144

*****
OUTCOME VARIABLE:
  AnxAtt

Model Summary
      R      R-sq      MSE      F      df1      df2
,2952  ,0872  ,9302  13,5570  1,0000  142,0000  ,000

Model
      coeff      se      t      p      LLCI      ULCI
constant  1,9563  ,3613  5,4140  ,0000  1,2420  2,6706
SelfEst   ,0620  ,0168  3,6820  ,0003  ,0287  ,0952

Standardized coefficients
      coeff
SelfEst  ,2952

*****
```

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,4084	,1668	113,0248	14,1167	2,0000	141,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	107,5759	4,3750	24,5888	,0000	98,9269	116,2250
SelfEst	-,8353	,1942	-4,3015	,0000	-1,2192	-,4514
AnxAtt	-1,5823	,9250	-1,7105	,0894	-3,4110	,2465

Standardized coefficients

	coeff
SelfEst	-,3461
AnxAtt	-,1376

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,3867	,1495	114,5576	24,9689	1,0000	142,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	104,4805	4,0101	26,0544	,0000	96,5533	112,4077
SelfEst	-,9334	,1868	-4,9969	,0000	-1,3026	-,5641

Standardized coefficients

	coeff
SelfEst	-,3867

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
-,9334	,1868	-4,9969	,0000	-1,3026	-,5641	-,0807	-,3867

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,8353	,1942	-4,3015	,0000	-1,2192	-,4514	-,0722	-,3461

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AnxAtt	-,0981	,0597	-,2253	,0101

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AnxAtt	-,0085	,0051	-,0191	,0009

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AnxAtt	-,0406	,0245	-,0921	,0041

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

10000

Second Model: Avoidant Attachment (mediator), Self-Esteem (predictor), Quality of Life (dependent).

***** PROCESS Procedure for SPSS Version 3.5.3 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

Model : 4
Y : QoL
X : SelfEst
M : AvoidAtt

Sample
Size: 144

OUTCOME VARIABLE:
AvoidAtt

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,2655	,0705	1,0850	10,7661	1,0000	142,0000	,0013

Model

	coeff	se	t	p	LLCI	ULCI
constant	1,7411	,3903	4,4614	,0000	,9697	2,5126
SelfEst	,0596	,0182	3,2812	,0013	,0237	,0956

Standardized coefficients

	coeff
SelfEst	,2655

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,5417	,2935	95,8443	29,2846	2,0000	141,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	111,8406	3,9166	28,5555	,0000	104,0977	119,5835
SelfEst	-,6812	,1772	-3,8441	,0002	-1,0316	-,3309
AvoidAtt	-4,2272	,7887	-5,3596	,0000	-5,7864	-2,6680

Standardized coefficients

	coeff
SelfEst	-,2822
AvoidAtt	-,3935

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

QoL

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	,3867	,1495	114,5576	24,9689	1,0000	142,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	104,4805	4,0101	26,0544	,0000	96,5533	112,4077
SelfEst	-,9334	,1868	-4,9969	,0000	-1,3026	-,5641

Standardized coefficients

	coeff
SelfEst	-,3867

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps	c_cs
-,9334	,1868	-4,9969	,0000	-1,3026	-,5641	-,0807	-,3867

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
-,6812	,1772	-3,8441	,0002	-1,0316	-,3309	-,0589	-,2822

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AvoidAtt	-,2521	,0981	-,4628	-,0772

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AvoidAtt	-,0218	,0079	-,0385	-,0071

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
AvoidAtt	-,1045	,0374	-,1814	-,0335

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

10000

Appendix D

Hypothesis 3: Multiple Regression

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,474 ^a	,225	,214	10,25528

a. Predictors: (Constant), AvoidAtt, AnxAtt

b. Dependent Variable: QoL

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4298,474	2	2149,237	20,436	,000 ^a
	Residual	14829,082	141	105,171		
	Total	19127,556	143			

a. Predictors: (Constant), AvoidAtt, AnxAtt

b. Dependent Variable: QoL

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	101,992	3,251		31,372	,000	95,565	108,419		
	AnxAtt	-,900	,917	-,078	-,981	,328	-2,712	,913	,865	1,156
	AvoidAtt	-4,723	,856	-,440	-5,515	,000	-6,416	-3,030	,865	1,156

a. Dependent Variable: QoL

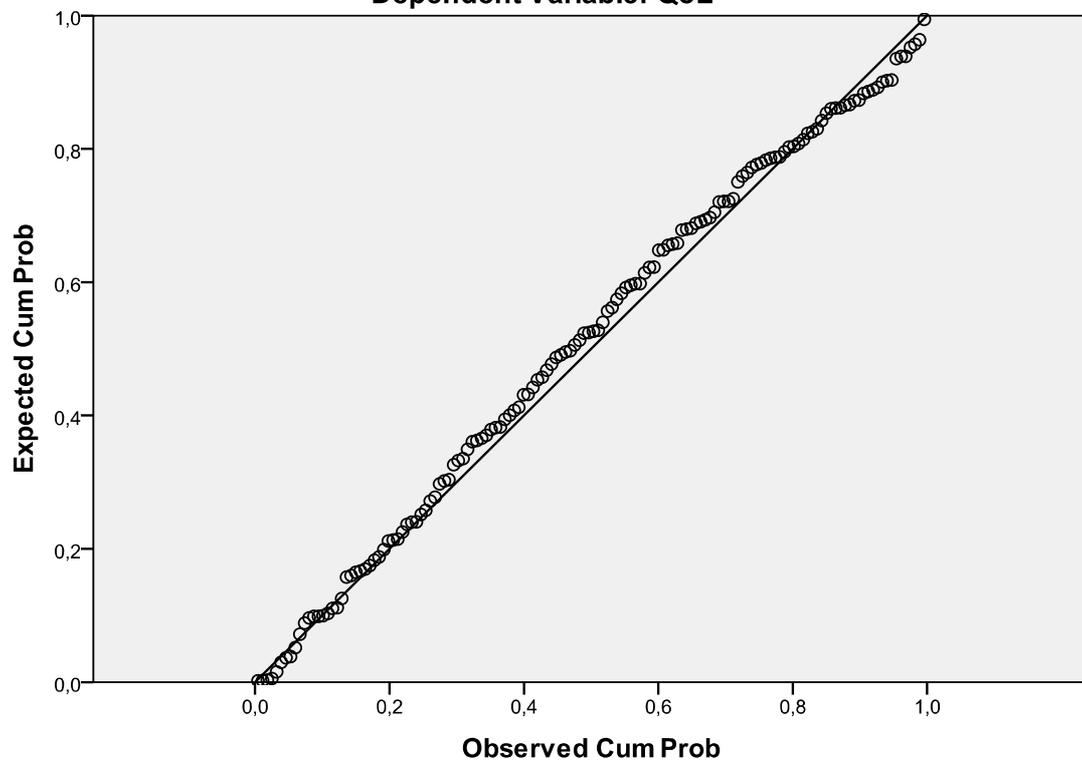
Collinearity Diagnostics^a

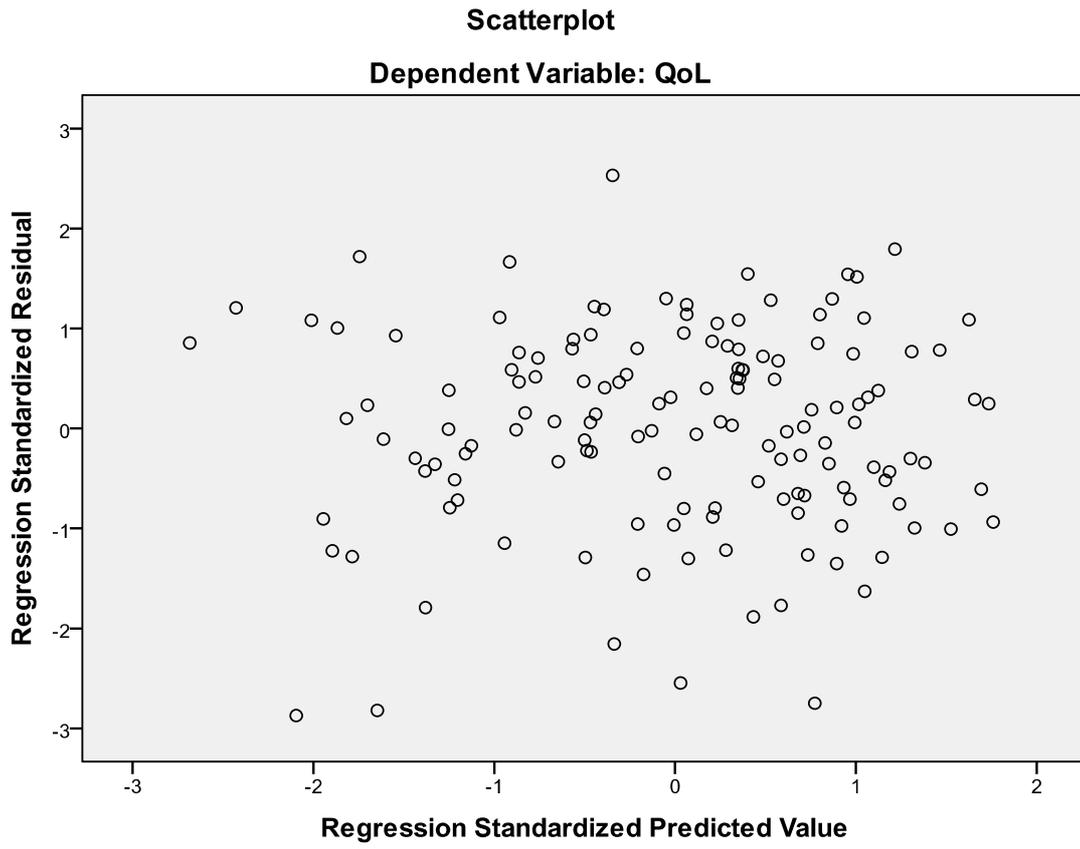
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	AnxAtt	AvoidAtt
1	1	2,889	1,000	,01	,01	,01
	2	,067	6,546	,10	,27	,96
	3	,044	8,108	,89	,72	,03

a. Dependent Variable: QoL

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: QoL





Appendix E

Hypothesis 4: Independent samples t-test

Group Statistics

Group		N	Mean	Std. Deviation	Std. Error Mean
QoL	Anxious	82	87,1098	10,43499	1,15235
	Avoidant	57	82,2807	12,60209	1,66919

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
QoL	Equal variances assumed	1,652	,201	2,463	137	,015	4,82905	1,96090	,95151	8,70660
	Equal variances not assumed			2,381	105,528	,019	4,82905	2,02832	,80750	8,85061

Appendix F

Cronbach's (α) reliability tests

Anxious Attachment:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,894	,895	18

Avoidant Attachment:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,937	,938	18

Self-Esteem:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,882	,886	10

Quality of Life:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,832	,840	16

Appendix G
Questionnaires

Demographics Questionnaire:

What is your age? :

Gender:

- 1) Male
- 2) Female
- 3) Non-Binary
- 4) Prefer not to say
- 5) Other

Experience in Close Relationships Scale

	QUESTION	1=Strongly Disagree.....7=Strong Agree						
1.	I'm afraid that I will lose my partner's love.	1	2	3	4	5	6	7
2.	I often worry that my partner will not want to stay with me.	1	2	3	4	5	6	7
3.	I often worry that my partner doesn't really love me.	1	2	3	4	5	6	7
4.	I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5	6	7
5.	I often wish that my partner's feelings for me were as strong as my feelings for him or her.	1	2	3	4	5	6	7
6.	I worry a lot about my relationships.	1	2	3	4	5	6	7
7.	When my partner is out of sight, I worry that he or she might become interested in someone else.	1	2	3	4	5	6	7
8.	When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.	1	2	3	4	5	6	7
9.	I rarely worry about my partner leaving me.	1	2	3	4	5	6	7
10.	My romantic partner makes me doubt myself.	1	2	3	4	5	6	7
11.	I do not often worry about being abandoned.	1	2	3	4	5	6	7
12.	I find that my partner(s) don't want to get as close as I would like.	1	2	3	4	5	6	7
13.	Sometimes romantic partners change their feelings about me for no apparent reason.	1	2	3	4	5	6	7
14.	My desire to be very close sometimes scares people away.	1	2	3	4	5	6	7
15.	I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.	1	2	3	4	5	6	7
16.	It makes me mad that I don't get the affection and support I need from my partner.	1	2	3	4	5	6	7
17.	I worry that I won't measure up to other people.	1	2	3	4	5	6	7
18.	My partner only seems to notice me when I'm angry.	1	2	3	4	5	6	7
19.	I prefer not to show a partner how I feel deep down.	1	2	3	4	5	6	7
20.	I feel comfortable sharing my private thoughts and feelings	1	2	3	4	5	6	7

	with my partner.							
21.	I find it difficult to allow myself to depend on romantic partners.	1	2	3	4	5	6	7
22.	I am very comfortable being close to romantic partners.	1	2	3	4	5	6	7
23.	I don't feel comfortable opening up to romantic partners.	1	2	3	4	5	6	7
24.	I prefer not to be too close to romantic partners.	1	2	3	4	5	6	7
25.	I get uncomfortable when a romantic partner wants to be very close.	1	2	3	4	5	6	7
26.	I find it relatively easy to get close to my partner.	1	2	3	4	5	6	7
27.	It's not difficult for me to get close to my partner.	1	2	3	4	5	6	7
28.	I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7
29.	It helps to turn to my romantic partner in times of need.	1	2	3	4	5	6	7
30.	I tell my partner just about everything.	1	2	3	4	5	6	7
31.	I talk things over with my partner.	1	2	3	4	5	6	7
32.	I am nervous when partners get too close to me.	1	2	3	4	5	6	7
33.	I feel comfortable depending on romantic partners.	1	2	3	4	5	6	7
34.	I find it easy to depend on romantic partners.	1	2	3	4	5	6	7
35.	It's easy for me to be affectionate with my partner.	1	2	3	4	5	6	7
36.	My partner really understands me and my needs.	1	2	3	4	5	6	7

Rosenberg Self Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

Strongly Agree Agree Disagree Strongly Disagree

2. At times I think I am no good at all.

Strongly Agree Agree Disagree Strongly Disagree

3. I feel that I have a number of good qualities.

Strongly Agree Agree Disagree Strongly Disagree

4. I am able to do things as well as most other people.

Strongly Agree Agree Disagree Strongly Disagree

5. I feel I do not have much to be proud of.

Strongly Agree Agree Disagree Strongly Disagree

6. I certainly feel useless at times.

Strongly Agree Agree Disagree Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree Agree Disagree Strongly Disagree

8. I wish I could have more respect for myself.

Strongly Agree Agree Disagree Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree Agree Disagree Strongly Disagree

10. I take a positive attitude toward myself.

Strongly Agree Agree Disagree Strongly Disagree

Quality of Life Scale

Please read each item and circle the number that best describes how satisfied you are at this time. Please answer each item even if you do not currently participate in an activity or have a relationship. You can be satisfied or dissatisfied with not doing the activity or having the relationship.

	Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible
1. Material comforts home, food, conveniences, financial security	7	6	5	4	3	2	1
2. Health - being physically fit and vigorous . . .	7	6	5	4	3	2	1
3. Relationships with parents, siblings & other relatives- communicating, visiting, helping . . .	7	6	5	4	3	2	1
4. Having and rearing children	7	6	5	4	3	2	1
5. Close relationships with spouse or significant other	7	6	5	4	3	2	1
6. Close friends	7	6	5	4	3	2	1
7. Helping and encouraging others, volunteering, giving advice	7	6	5	4	3	2	1
8. Participating in organizations and public affairs	7	6	5	4	3	2	1
9. Learning- attending school, improving understanding, getting additional knowledge . .	7	6	5	4	3	2	1
10. Understanding yourself - knowing your assets and limitations - knowing what life is about . .	7	6	5	4	3	2	1
11. Work - job or in home	7	6	5	4	3	2	1
12. Expressing yourself creatively	7	6	5	4	3	2	1
13. Socializing - meeting other people, doing things, parties, etc	7	6	5	4	3	2	1
14. Reading, listening to music, or observing entertainment	7	6	5	4	3	2	1
15. Participating in active recreation	7	6	5	4	3	2	1
16. Independence, doing for yourself	7	6	5	4	3	2	1

Appendix H

Participants Information Sheet:

The Relationship Between Romantic Attachment, Quality of Life and Self-Esteem in Young Adults

Information letter

The purpose of this study is to explore the relationship between romantic attachment, quality of life and self-esteem in young-adults. The study is conducted by master students in context of their master thesis and will presumably not be published. Participants are expected to complete three online questionnaires truthfully and answer some questions about personal topics, which will take about 10 minutes. The participant does not risk any disadvantages when participating in this study. Participation is voluntary and participants can quit at any time without having to give any reasons and without consequences for the participant. The data collected until the moment of quitting may be used for research. Data on personal topics (gender identity, sexual orientation and relationship status) are collected to analyse variety within the sample and draw conclusions on the effects of age, gender, relationship status, etc. Only personal questions that are necessary to answer the research question alone will be requested. The data will be treated confidentially and stored anonymously. Only the researchers involved have access to the anonymous data. Personal data will not be stored. The retention period for the raw data is 10 years, personal data will be retained as long as they are necessary for the purpose for which they were collected. If necessary, the anonymized data can be used for follow-up research or for future research for any other purpose.

Consent Form (digitized)

Consent form

for participation in a study for the Master Thesis in Clinical Psychology
The Relationship between Romantic Attachment, Quality of Life and Self-Esteem

I hereby confirm that

- I have received satisfactorily information on the content and procedure of the study
- I have read and understood the information letter on the study.
- I am aware that the present study is conducted by Psychology students as part of their Master Thesis.
- I was given information about a contact person in case of any questions about the study.
- I was allowed sufficient time to consider whether to I want to give my consent and participate.
- I participate voluntarily.

I understand that

- I am allowed to withdraw my consent at any time without having to give a reason and that withdrawing my participation has no further consequences.
- all my data will be processed anonymously.
- I will not be informed about my individual outcomes.
- the results of the study cannot be considered as a diagnostic test.

- I hereby consent to participate in the study referred to above.

I DO consent

I do NOT consent