STUDIA DOCTORALIA
PSYCHOLOGY AND EDUCATIONAL SCIENCE
UNIVERSITY OF BUCHAREST
VIRTUTE ET SAPIENTIA

Attachment Style and Anxiety Symptoms: The Moderating Role of Self-Compassion and Nonattachment

Delia Elena Porfireanu

Smaranda Guțu

Florinda Golu

University of Bucharest

ARTICLE INFO

Article history:
Received 18-January-2025
Accepted 30-March-2025
Available online 28-May-2025

This article should be cited as: Porfireanu, D. E., Guțu, S., Golu, F. (2025). Attachment Style and Anxiety Symptoms: The Moderating Role of Self-Compassion and Nonattachment. *Studia Doctoralia. Psychology and Educational Science, 16*(1), 42-52. https://doi.org/10.47040/sdpsych.v16i1.184

University of Bucharest, Department of Psychology, 90 Panduri Av, Bucharest, RO.
Tel.: +40 (0) 31-425.34.45
E-mail address: smarandamgutu@gmail.com

ABSTRACT

The present study explored the relationship between insecure attachment styles and anxiety symptoms, while also investigating the potential moderating role of self-compassion and nonattachment as protective factors. A total of 180 Romanian adults participated in the study by completing an online questionnaire that included measures of attachment (Romanian Version of the Experiences in Close Relationships, ECR Scale; Sava & Negrei, 2006), self-compassion (Self-Compassion Scale, SC; Neff, 2003), nonattachment (Nonattachment Scale – Short Form, NAS-SF; Chio et al., 2018), and anxiety symptoms (Generalized Anxiety Disorder-7, GAD-7; Spitzer et al., 2006). Results showed that insecure attachments were positively associated with anxiety, while both self-compassion and nonattachment were negatively correlated with it. However, moderation analyses revealed that neither self-compassion nor nonattachment significantly moderated the relationship between attachment insecurity and anxiety symptoms. These findings indicate the importance of relational experiences even from childhood and suggest the potential of self-compassion and nonattachment as protective factors.

Keywords: attachment, anxiety, self-compassion, nonattachment

1. INTRODUCTION

Anxiety disorders represent the most widespread mental health conditions globally, impacting around 301 million individuals in 2019, with a higher incidence among women. Despite the availability of effective treatments, only one in four individuals with anxiety disorders accesses appropriate care (World Health Organization, 2023). This could be explained by several reasons, such as lack of awareness regarding mental health, societal stigma, or lack of financial resources needed in order to afford treatment, factors that also cause an underestimation of how widespread this disorder truly is due to underreporting (Bandelow & Michaelis, 2015).

Anxiety is the natural response to a threatening situation, often manifesting as a feeling of worry, fear, or nervousness, that may cause fast heart beating, sweat or feeling unwell (Craske et al., 2011). Even though it is a common reaction to danger, it can start to negatively affect daily life if it becomes excessive. Anxiety has been identified as a central factor in both anxiety disorders and depressive disorders, suggesting how it can contribute negatively to an individual's quality of life (Chorpita & Barlow, 1998). Also, anxiety disorders are some of the most prevalent mental health conditions (Javaid et al., 2023). The continuous spreading of anxiety symptoms affecting more and more individuals is concerning, especially if we take into consideration its effects on psychological, social or professional well-being. It affects relationships with others and also leads to isolation. Additionally, it can cause poor performance in the workplace and lost productivity (Bereza et al., 2012).

Anxiety disorders often begin in early stages of life, such as childhood or young adulthood , with rates often reaching their highest level during middle age (Bandelow & Michaelis, 2015). Experiencing stress and trauma from a very young age, as well as experiencing difficulties during childhood or later on, are common predictors for anxiety issues. Studies show that anxiety is not only a temporary reaction to stressful factors, but it can also become a psychological vulnerability developed even from childhood due to a constant feeling of lack of control (Chorpita & Barlow, 1998). When a child is frequently exposed to stressful situations without having the possibility of influencing what is happening, he can learn and understand the world as a chaotic and unsafe place. On the long run, this perspective can activate an excessive response to stress and lead to reduced resilience and autonomy, with a vulnerability to experience anxiety.

This aligns with John Bowlby's theory of attachment, which suggests that the relationship with the primary caregiver is critical in the development of the child. When the infant receives constant care and availability from the parent, the world can be understood as a safe and secure place to discover. This leads to the development of a secure attachment which will be the base for healthy future relationships. However, prolonged separation or neglect can lead to insecure attachment styles, with an increased sense of vulnerability and proneness to anxiety (Bowlby, 1982). When children develop an insecure attachment, it becomes more difficult for them to fix social problems, get support from those around them, or preserve friendships. It is also harder to self-regulate and adapt to emotional challenges in a healthy way, which can make them more prone to anxiety symptoms in the future (Colonnesi et al., 2011). In addition to that, Bowlby's concept of internal working models suggests that early attachment experiences shape an individual's strategies for emotional regulation. This refers to how others are expected to behave and how the interactions with the world will take place (Bowlby, 1982). When experiencing unreliable connections with the attachment figure, children may develop maladaptive coping mechanisms, such as avoidance, which contributes to increased anxiety. Therefore, we predict and propose the following hypothesis:

H1: Insecure attachment styles are positively associated with higher levels of anxiety.

Mary Ainsworth identified three primary attachment styles in infants: secure attachment, where infants feel safe exploring the environment; anxious-ambivalent attachment, where infants show clinginess and become distressed when separated; and avoidant attachment, where infants show indifference whether the parent is present or not (Ainsworth et al., 2015). Modern research has focused on distinguishing adult attachment by following two dimensions: model of the self, referring to one's expectation of a positive response from others, which reflects the individual's level of anxiety; and model of the others, referring to one's expectation for availability from others, which reflects the level of avoidance related to relationships (Griffin & Bartholomew, 1994). While internal working models developed in childhood tend to persist, adult attachment styles are not static. They can vary depending on the individual's experiences and situational contexts. For instance, while a person might generally possess a secure style, adverse life events or relationship disruptions may trigger insecure patterns, which shows the dynamic nature of attachment throughout adulthood (Fraley et al., 2021). Understanding this variability is important for promoting emotional adaptation across lifespan and for recognizing adult relational dynamics, as attachment styles have the capacity for change and development throughout a person's life (Thompson et al., 2022).

In other words, attachment plays an important part in the development of anxiety symptoms and emotion regulation strategies, while protective factors have an important role in maintaining well-being. By exploring the relationship between attachment and anxiety, this research can provide better insights into potential psychological mechanisms, such as self-compassion and nonattachment, that can help reduce anxiety symptoms in individuals with insecure attachment patterns.

Nonattachment is an emergent protective factor that can be useful in dealing with anxiety symptoms in the context of insecure attachment styles. It is psychological concept that promotes a thoughtful, reflective, and balanced engagement with internal experiences, allowing individuals to recognize

thoughts and emotions without rigid fixation or unwanted emotional suppression (Whitehead et al., 2018). By strengthening openness, acceptance, and curiosity toward internal and external experiences, nonattachment allows individuals to navigate life's uncertainties more flexibly and constructively (Whitehead et al., 2018). Unlike emotional avoidance, nonattachment encourages a balanced connection with emotions rather than clinging to or rejecting them.

Historically, the concept of nonattachment is rooted in Buddhist philosophy. As opposed to Western psychology, where attachment is understood as the foundation for efficient emotion regulation and well-being, in Buddhist literature, the concept of attachment is described as clinging and grasping to objects, people or events, which eventually leads to suffering (Sahdra et al., 2010). Consequently, nonattachment refers to experiencing emotions without being entirely dependent and fixated, but rather adaptable, open and accepting of change (Sahdra et al., 2010). It was found that nonattachment is inversely related to avoidant attachment and positively associated with well-being (Sahdra et al., 2010). Furthermore, nonattachment contributes to healthier relationships with oneself and others by promoting emotional resilience and reducing emotional reactivity (Sahdra et al., 2015).

Based on these findings, the development of nonattachment could act as a buffer in the case of anxiety symptoms experienced by individuals with insecure attachment styles. The anxiety caused by fears of rejection or abandonment could be mitigated by focusing on accepting change as a natural process and responding to stressful events in a compassionate way. Another study found that nonattachment plays an important role in promoting well-being and reducing psychological distress, acting as a partial mediator in the relationship between mindfulness and these mental health outcomes (Ho et al., 2022). Moreover, individuals with higher nonattachment levels report greater job satisfaction and lower emotional distress, highlighting nonattachment's broader role in emotional and occupational well-being (Tsoi et al., 2022). Based on these findings, the following hypotheses are proposed:

H2: *Nonattachment is negatively associated with anxiety symptoms, suggesting that individuals with higher nonattachment levels report lower anxiety*.

H3: *Nonattachment moderates the relationship between insecure attachment styles and anxiety symptoms, acting as a protective factor that reduces the negative impact of insecure attachment on anxiety*.

Another general protective factor is self-compassion, which refers to treating oneself with kindness, being open and paying attention to one's own suffering (Neff, 2003). This suggests approaching stressful situations in a kind and loving manner, without being critical or judgmental of oneself (Neff & Knox, 2017). Self-compassion can be used as another efficient coping mechanism especially by individuals with insecure attachments, as their vulnerability towards rumination, self-doubt and isolation would benefit from a more gentle and positive approach. It can become a protective factor and diminish the impression of threat while offering a sense of safety (Gilbert & Procter, 2006). Interventions aimed to improve self-compassion have been found to reduce symptoms of anxiety and depression in young people (Egan et al., 2022). Also, it was found that self-compassion has a significant negative association with anxiety and depression, meaning higher self-compassion is linked to lower symptoms of these conditions (Pérez-Aranda et al., 2021). Therefore, we propose the following hypotheses:

H4: *Self-compassion is negatively associated with anxiety symptoms, meaning that individuals with higher self-compassion levels experience fewer anxiety symptoms.*

H5: *Self-compassion moderates the relationship between insecure attachment styles and anxiety symptoms, such that individuals with higher levels of self-compassion experience lower anxiety symptoms even when attachment insecurity is high.*

While much of the existing literature has focused on global levels of self-compassion, the potential moderating effects of its individual dimensions have been less investigated. According to Neff, self-compassion has the following dimensions: self-kindness as opposed to self-judgment, common humanity as opposed to isolation, and mindfulness as opposed to overidentification (Neff & Knox, 2017). Each of these facets has an important role in how an individual perceives and deals with difficulties. Self-kindness refers to being gentle with oneself when something doesn't go well instead of becoming critical and judgmental; common humanity expresses the idea that negative experiences happen to everyone and encourages the thought that one is not alone or isolated; mindfulness entails being able to maintain an emotional balance when confronting with negative events instead of becoming overwhelmed by emotions (Allen & Leary, 2010). Research found that the six subscales of self-compassion have distinct associations with anxiety-related outcomes, depending on the person's overall level of self-compassion. Among people with low self-compassion, self-kindness stood out to be the most protective, being linked to reduced symptoms of anxiety, depression, and stress. In contrast, overidentification was strongly associated with emotion regulation difficulties, including increased rumination and self-blame. Even in individuals with high overall self-compassion, overidentification remained a significant predictor of anxiety and stress. These findings support the idea that self-compassion subscales have distinct roles across individuals, even though they work together (Phillips, 2021). The present study tries to explore the extent to which the six dimensions of self-compassion moderate the relationship between insecure attachment styles and anxiety symptoms. We predict and therefore propose the following hypothesis:

H6: *Each of the six dimensions of self-compassion moderates the relationship between insecure attachment and anxiety symptoms, such that individuals scoring higher on these dimensions experience fewer anxiety symptoms even when attachment insecurity is high*.

Additionally, diagnostic status is a relevant factor in understanding psychological vulnerability. Research has shown that individuals diagnosed with anxiety, depression, or Obsessive-Compulsive Disorder (OCD) tend to report higher levels of attachment insecurity, particularly anxious and avoidant styles (Rajkumar, 2022; Van Leeuwen et al., 2020). Moreover, adults with Attention Deficit Hyperactivity Disorder (ADHD) report significantly lower levels of self-compassion compared to individuals without ADHD (Beaton et al., 2020). Therefore, we propose the following hypothesis:

H7: *Individuals diagnosed with a mental health disorder will report more severe anxiety symptoms and attachment insecurity and lower self-compassion and nonattachment compared to individuals without a diagnosis.*

2. METHOD

Participants

The initial sample consisted of 183 participants who were recruited using social media platforms such as Facebook, Instagram, and WhatsApp. Inclusion criteria required participants to be Romanian-speaking adults aged 18 years or older. After applying exclusion criteria, specifically incomplete demographic information or being under 18 years old, the final sample consisted of 180 participants. The required sample size was determined through a power analysis conducted with G*Power, which indicated a minimum of 80 participants to achieve a test power of 0.80. The final sample exceeded the minimum required number to ensure greater precision.

The participants ranged in age from 18 to 64 years (M = 22.85, SD = 6.28). Most participants were women (85%) and resided in urban areas (81%). Regarding educational level, most held a high school diploma, followed by bachelor's and master's degrees. In terms of mental health, 35 (19.44%) participants reported having been diagnosed with a mental health condition and 143 (79.44%) stated they had never received a diagnosis. The most commonly reported conditions were anxiety and depression, while less frequently reported diagnoses included ADHD, OCD, Post-Traumatic Stress Disorder, Borderline Personality Disorder, and bulimia. Additionally, 2 (1.09%) participants preferred not to disclose this information. Regarding relationship status, approximately 55% of participants reported being in a relationship. Participants provided self-reported information about gender, age, relationship status, educational level, area of origin, and mental health diagnosis history, along with responses to four Likert scale measures. These data were collected to better characterize the sample. A detailed overview of demographic characteristics is presented below in Table 1.

Table 1

Demographic Characteristics of the Sample (N = 180)

Variable	Category	N	Percent
Gender	Female	153	85.0
	Male	27	15.0
Relationship status	In a relationship	99	55.0
	Not in a relationship	25	13.9
	No, but was in the past	29	16.1
	No, but I wish to	11	6.1
	No, never been in one	14	7.8
	No, and I do not wish to	2	1.1
Education level	High school diploma	132	73.3
	Bachelor's degree	31	17.2
	Master's degree	13	7.2
	Doctorate degree	4	2.2
Area of origin	Urban	145	80.6
	Rural	35	19.4

Procedure

Data were collected between December 2024 and February 2025 via an anonymous online questionnaire administered through Google Forms. Participants were recruited through distributed links on social media platforms. Individuals were informed that participation was voluntary, that they could withdraw at any time without consequences, and that their responses would remain confidential and anonymous. Participants provided informed consent by clicking an agreement checkbox before proceeding to the survey. The online questionnaire took approximately 15–20 minutes to complete and included questions on demographic data and four

evaluation scales measuring attachment styles, anxiety symptoms, nonattachment, and self-compassion. All questions were mandatory to minimize missing data. Participants were not compensated for their participation.

Instruments

Attachment insecurity. Attachment was measured using the Romanian Version of the Experiences in Close Relationships (ECR) Scale (Sava & Negrei, 2006) , which was developed by Brennan, Clark and Shaver (1998) to measure adult attachment styles along two key dimensions: anxiety and avoidance. This Romanian adaptation by Sava and Negrei (2006) maintains the item loadings on the two original dimensions. The scale consists of 30 items (15 for each dimension), and responses are rated on a 7-point Likert scale, ranging from 1 (Strongly disagree) to 7 (Strongly agree). For this sample, the internal consistency of the Romanian ECR was assessed using Cronbach's Alpha, resulting in a total score of .90. Additionally, internal consistency for the subscales was calculated: .93 for Anxiety and .89 for

Avoidance, consistent with the Romanian validation study, where Cronbach's alpha coefficients were .85 for the Anxiety subscale and .81 for the Avoidance subscale (Sava & Negrei, 2006). The original version of the ECR also demonstrated good internal reliability, with reported alphas of .91 for Anxiety and .94 for Avoidance (Brennan et al., 1998).

Self-compassion. Self-compassion was assessed using the Self-Compassion Scale (SCS) (Neff, 2003). This is a self-report questionnaire which consists of 26 items measuring six components: self-kindness (e.g., "I try to be loving towards myself when I'm feeling emotional pain"), self-judgment (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"), common humanity (e.g., "When things are going badly for me, I see the difficulties as part of life that everyone goes through"), isolation (e.g., When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world"), mindfulness (e.g., "When something upsets me I try to keep my emotions in balance"), and over-identification (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong"). Participants rate items on a 5-point Likert scale from 1 (almost never) to 5 (almost always). In this sample, the total internal consistency of the SCS was assessed using Cronbach's Alpha, resulting in $\alpha = .92$. Cronbach's alphas for the subscales were $\alpha = .86$ (Self-Kindness), $\alpha = .83$ (Self-Judgment), $\alpha = .76$ (Common Humanity), $\alpha = .78$ (Isolation), $\alpha = .82$ (Mindfulness), and $\alpha = .81$ (Over-Identification), consistent with the original validation study, which reported $\alpha = .92$ for the total score and subscale alphas ranging from $\alpha = .75$ to $\alpha = .81$ (Neff, 2003).

Anxiety symptoms. Anxiety symptoms were assessed using the Generalized Anxiety Disorder-7 (GAD-7) (Spitzer et al., 2006) which is a brief self-report tool designed to screen for generalized anxiety disorder (GAD) and measure symptom severity, also frequently used for subclinical levels of anxiety. The scale includes 7 items assessing core GAD symptoms over the past two weeks, scored on a 4-point Likert scale, from 0 (Not at all) to 3 (Nearly every day). Total scores range from 0 to 21, with higher scores indicating greater anxiety severity. An example item is: "Feeling nervous, anxious, or on edge". In this study, the GAD-7's reliability was assessed, with Cronbach's Alpha calculated at .91, similar with the original study where internal consistency was at .92 (Spitzer et al., 2006). The GAD-7 has also been adapted and validated for use in Romania, demonstrating strong psychometric properties (Cotiga et al., 2023). In the Romanian validation, Cronbach's Alpha was .92 in the clinical sample and .75 in the general population sample, supporting its reliability across diverse settings.

Nonattachment. Nonattachment was measured using the Nonattachment Scale – Short Form (NAS-SF) (Chio et al., 2018). Items are assessed on a 6-point Likert scale, from 1 (Strongly disagree) to 6 (Strongly agree). An example item is, "I can accept the flow of events in my life without hanging onto them or pushing them away". The scale was translated from English to Romanian using the back-translation method in order to make sure conceptual and linguistic equivalence was maintained. In this sample, the NAS-SF demonstrated strong internal consistency, with a Cronbach's Alpha of .85, consistent with the original study where internal consistency was .91 (Chio et al., 2018).

Design

This study employed a cross-sectional, non-experimental design using self-report data collected at a single time point. The dependent variable was anxiety symptoms, measured by the GAD-7 scale. The independent variables were insecure attachment, nonattachment, and self-compassion, with both global and subscale levels.

Statistical Approach

We used R version 4.2.1 (R Core Team, 2022) and the following R-packages for all our analyses: dplyr version 1.1.4 (Wickham et al., 2023), readxl version 1.4.5 (Wickham & Bryan, 2025), writexl version 1.5.2 (Ooms, 2025), psych version 2.5.3 (Revelle, 2025), papaja version 0.1.3 (Aust & Barth, 2024), ggplot2 version 3.5.1 (Wickham et al., 2024), interactions version 1.2.0 (Long, 2024a), jtools version 2.3.0 (Long, 2024b), flextable version 0.9.7 (Gohel & Skintzos, 2024), officer version 0.6.8 (Gohel et al., 2025), broom version 1.0.7 (Robinson et al., 2025).

3. RESULTS

Descriptive statistics

Table 2

Descriptive Statistics for Psychological Scales and Subscales (N=180)

Scale	M	SD	Skewness	Kurtosis
ECR	3.89	.81	.56	.86
GAD	1.47	.83	.19	-.89
SCS	3.19	.43	.09	2.41
NAS	3.93	.97	.00	-.33
SK	3.06	.93	.00	-.39
SJ	3.24	.93	-.37	-.34
CH	3.15	.91	-.03	-.50
ISO	3.05	1.02	-.23	-.56
MIN	3.26	.92	.03	-.46
OI	3.40	.99	-.39	-.42
ANX	3.46	1.28	.28	-.29
AVD	4.45	.65	-.28	1.84

Note. ECR = Experiences in Close Relationships; GAD = Generalized Anxiety Disorder–7; SCS = Self-Compassion Scale; NAS = Nonattachment Scale–Short Form; SK = Self-Kindness; SJ = Self-Judgment; CH = Common Humanity; ISO = Isolation; MIN = Mindfulness; OI = Over-Identification; ANX = Attachment Anxiety; AVD = Attachment Avoidance.

Table 3

Pearson Correlations between Psychological Scales and Subscales

	1	2	3	4	5	6	7	8	9	10	11	12
1. ECR	—											
2. GAD	.53*	—										
3. SCS	.4*	.34*	—									
4. NAS	-.28*	-.36*	.16*	—								
5. SK	-.21*	-.31*	.34*	.68*	—							
6. SJ	.5*	.52*	.47*	-.44*	-.55*	—						
7. CH	-.12	-.16*	.51*	.51*	.64*	-.26*	—					
8. ISO	.53*	.51*	.54*	-.44*	-.38*	.66*	-.22*	—				
9. MIN	-.22*	-.3*	.4*	.69*	.73*	-.38*	.65*	-.37*	—			
10. OI	.53*	.6*	.47*	-.49*	-.45*	.69*	-.31*	.7*	-.43*	—		
11. ANX	.94*	.51*	.32*	-.38*	-.31*	.53*	-.22*	.57*	-.32*	.55*	—	
12. AVD	.47*	.22*	.32*	.16*	.2*	.09	.22*	.07	.17*	.12	.14	—

Note. ECR = Experiences in Close Relationships; GAD = Generalized Anxiety Disorder–7; SCS = Self-Compassion Scale; NAS = Nonattachment Scale–Short Form; SK = Self-Kindness; SJ = Self-Judgment; CH = Common Humanity; ISO = Isolation; MIN = Mindfulness; OI = Over-Identification; ANX = Attachment Anxiety; AVD = Attachment Avoidance; * indicates $p < .05$.

As shown in Table 2, participants reported moderate levels of attachment insecurity (ECR), and anxiety symptoms (GAD-7), while levels of nonattachment (NAS-SF) and self-compassion were higher. Skewness and kurtosis values were within acceptable ranges for all values.

As proposed by Hypothesis 1, attachment insecurity was positively associated with anxiety symptoms. Hypothesis 2 was also supported, as nonattachment was negatively correlated with anxiety. Additionally, consistent with Hypothesis 4, self-compassion showed a significant negative correlation with anxiety symptoms.

Table 4

Moderation Analysis Examining the Interaction Between Attachment Insecurity and Self-Compassion (Total and Subscales) in Predicting Anxiety Symptoms

Variable	Interaction	b	SE	t	p
SCS	Attachment × SCS	-.10	.10	-1.03	.305
SK	Attachment × SK	.03	.05	.63	.528
SJ	Attachment × SJ	-.03	.06	-.50	.620
CH	Attachment × CH	.01	.06	.19	.847
ISO	Attachment × ISO	-.04	.06	-.72	.470
MIN	Attachment × MIN	.05	.06	.92	.359
OI	Attachment × OI	.01	.06	.23	.817

Note. SCS = Self-Compassion Scale; SK = Self-Kindness; SJ = Self-Judgment; CH = Common Humanity; ISO = Isolation; MIN = Mindfulness; OI = Over-Identification.

A moderation analysis was conducted to examine whether self-compassion moderates the relationship between attachment insecurity and anxiety symptoms (Table 4). The overall model with the total self-compassion score was significant, $F(3, 176) = 25.44$, $p < .001$, $R^2 = .30$. Attachment insecurity was a significant positive predictor of anxiety symptoms, while self-compassion was a significant negative predictor. However, the interaction between attachment insecurity and self-compassion was not statistically significant. Similarly, none of the interactions between attachment insecurity and the individual self-compassion subscales reached significance. Thus, Hypotheses 5 and 6 were not supported.

Table 5

Moderation Analysis Examining the Interaction between Attachment Insecurity and Nonattachment in Predicting Anxiety Symptoms

Predictor	b	SE	t	p
Intercept	1.48	.05	28.17	< .001
Attachment Insecurity (centered)	.47	.07	7.17	< .001
Nonattachment (centered)	-.21	.06	-3.74	< .001
Interaction: Attachment × Nonattachment	.05	.05	.89	.375

Table 5 presents the results of the moderation analysis examining whether nonattachment moderates the relationship between attachment insecurity and anxiety symptoms. Hypothesis 3 stated that nonattachment moderates the relationship between insecure attachment and anxiety symptoms. This hypothesis was not supported. Although the overall model was significant, $F(3, 176) = 29.11$, $p < .001$, $R^2 = .33$, and attachment insecurity was a significant positive predictor of anxiety symptoms, and nonattachment was a significant negative predictor, the interaction between attachment insecurity and nonattachment was not statistically significant.

Table 6

Differences between Diagnosed (N= 35) and Non-Diagnosed Individuals (N=143) on Anxiety, Self-compassion, Nonattachment, and Attachment Scores

Variable	t	df	p	Mean diagnosed	Mean nondiagnosed
GAD	4.45	52	< .001	2.00	1.34
SCS Total	1.12	67	.266	3.25	3.17
NAS	-1.68	50	.098	3.69	4.00
ECR Total	2.42	52	.019	4.19	3.82

Hypothesis 7 stated that individuals diagnosed with a mental health disorder would report more severe anxiety symptoms and attachment insecurity and lower self-compassion and nonattachment compared to individuals without a diagnosis. This hypothesis was partially supported. Individuals with a diagnosis reported significantly higher anxiety symptoms compared to those without a diagnosis. Similarly, diagnosed individuals reported significantly higher attachment insecurity than non-diagnosed individuals. However, no significant differences were found in self-compassion and nonattachment between the two groups.

4. DISCUSSIONS

Summary of Findings

The main objective of this research was to examine the relationship between attachment and anxiety symptoms, as well as the moderating role of protective factors, such as self-compassion and nonattachment. By doing this, we tried to offer a better understanding on the way that these psychological constructs can act as buffers against the negative impact of attachment insecurity on mental health, specifically with the focus on anxiety symptoms.

The results we obtained partially supported the proposed hypotheses. H1 was confirmed, as attachment insecurity was positively associated with anxiety symptoms. This result is also consistent with previous research. A meta-analysis by Colonnesi et al. (2011) found a moderate association between insecure attachment and anxiety in children and adolescents (Colonnesi et al., 2011). Similarly, Nielsen et al. (2017) demonstrated that attachment anxiety is positively associated with anxiety symptoms, and that this relationship is fully mediated by emotion dysregulation (Nielsen et al., 2017). Additionally, a longitudinal study found that insecure attachment styles increase the likelihood of developing anxiety symptoms (Lee & Hankin, 2009).

H2 was also confirmed, as nonattachment proved to be negatively correlated with anxiety symptoms, supporting the idea that being adaptable and accepting change is an important part in maintaining well-being. These results are consistent with previous research which found that nonattachment was significantly and negatively associated with anxiety, predicting reduced psychological distress (Bhambhani & Cabral, 2016; Ciarrochi et al., 2020).

H3 and H5 were not confirmed, as the moderation analyses indicated no significant effect of the interaction between attachment and nonattachment, respectively attachment and self-compassion, in predicting anxiety symptoms. However, previous research has found that nonattachment is inversely related to avoidant attachment and positively associated with well-being (Sahdra et al., 2010), suggesting that it may still play a meaningful role in reducing distress, even if it does not moderate the effect of attachment insecurity in this particular sample. Similarly, prior research has shown that self-compassion acts as a significant mediator between attachment insecurity and psychological distress. For instance, it was found that self-compassion significantly mediated the relationship between both attachment anxiety and avoidance and symptoms of complex PTSD among college students with adverse childhood experiences (Peng & Ishak, 2025). Consequently, these results should be interpreted with caution, as all measures were based on self-report data involving a high degree of self-disclosure.

Another confirmed hypothesis is H4, as self-compassion was negatively associated with anxiety, which is also in line with previous research (Pérez-Aranda et al., 2021; Van Dam et al., 2011).

On the other hand, H6 was not confirmed, as none of the 6 subscales of self-compassion moderated the relationship between attachment and anxiety, even though some correlations did appear, such as the positive association of overidentification with anxiety and the negative association of self-kindness with anxiety. An explanation for these results could be the fact that the participants in this study were mostly young adults that may have not yet fully developed their internal emotion regulation mechanisms associated with self-compassion.

In the end, H7 was partially confirmed, as participants who were diagnosed with a mental health disorder reported higher anxiety and attachment insecurity levels (Rajkumar, 2022). However, there were no differences regarding self-compassion and nonattachment levels between the diagnosed and non-diagnosed groups.

Limitations

The are certain limitations that need to be taken into consideration when interpreting the results of this study. Firstly, the cross-sectional design does not allow the establishment of causation between the studied variables, even though there were significant correlations. Secondly, the data collection process included only self-reported questionnaires that were completed online. This can lead to response bias or to difficulties in evaluating one's own emotions and behaviors, as it requires a lot of introspection. In addition, the assessment of attachment was done on a general level, without referring clearly to a certain significant person or relationship.

Another limitation of this research could be the characteristics of the sample, as most participants were women (85%) and young adults with the mean age of 22.85. This could limit the generalization of the results to a bigger part of the population or to another age group. Furthermore, Erikson's Stages of Psychosocial Development suggest that early adulthood is a period marked by the conflict between intimacy and isolation, where individuals try to form meaningful, close relationships, and failure to do so may lead to isolation and emotional distress (Mcleod, 2008). Research also shows that an unclear or insufficiently developed self-identity can negatively affect the capacity of young adults to from meaningful intimate relationships (Raskin, 1986). This emotional and developmental instability, specific to early adulthood, may help explain why the analyzed protective factors (self-compassion and nonattachment) did not significantly moderate the relationship between insecure attachment and anxiety symptoms.

Practical Implications

The results of this research offer some important practical implications for mental health professionals that try to improve psychological well-being. Firstly, the confirmation of the positive association between insecure attachment styles and anxiety

symptoms shows the necessity of dealing with early relational patterns in psychotherapy. In this context, Emotion-Focused Therapy may help individuals develop healthier interpersonal schemas and reduce anxiety, as it helps clients identify and transform these maladaptive emotions into healthier ones that better meet their needs (Watson & Sharbanee, 2022). Additionally, both nonattachment and self-compassion were negatively correlated with anxiety symptoms, which indicated their potential as protective psychological factors. Although neither of them turned out to be significant moderators, the direct associations with lower anxiety levels suggest their usefulness in reducing distress.

On a broader level, the results of this study can contribute to the development of targeted interventions aimed to increase well-being and resilience for people struggling with anxiety symptoms. Since anxiety disorders are often developed early in life, it is important to acknowledge the role of early attachment experiences and raise awareness on their long-term impact on mental health outcomes.

Future Directions

This research provides a valuable foundation for future research. Firstly, since the moderation analyses did not show significant effects for self-compassion and nonattachment, it would be useful for future studies to use a longitudinal design to observe these variables over time and to draw causal conclusions. Secondly, as all data was collected through self-report measures, future studies should also use other objective methods such as clinical interviews. Moreover, assessing attachment in relation to a specific person or relationship could also be beneficial. Additionally, future studies should consider including more men and participants from different age groups, as the current sample included mostly young adult women. Finally, future research may consider investigating other relevant variables, such as resilience or psychological flexibility, which may act as protective factors in the relationship between attachment and anxiety.

Conclusion

The aim of this study was to examine the moderating role of self-compassion and nonattachment between insecure attachment styles and anxiety symptoms. While results showed that insecure attachments were positively associated with anxiety, both self-compassion and nonattachment were negatively correlated with it, the moderation analyses indicated that neither self-compassion nor nonattachment significantly moderated the relationship between attachment insecurity and anxiety symptoms. Findings therefore suggest the need to foster emotional well-being and reducing anxiety among individuals with insecure attachment patterns..

5. REFERENCES

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. N. (2015). *Patterns of attachment: A psychological study of the strange situation* (Classic edition). Routledge, Taylor & Francis Group. https://doi.org/10.4324/9780203758045

Allen, A. B., & Leary, M. R. (2010). Self-Compassion, Stress, and Coping: Self-Compassion, Stress, and Coping. *Social and Personality Psychology Compass*, *4*(2), 107–118. https://doi.org/10.1111/j.1751-9004.2009.00246.x

Aust, F., & Barth, M. (2024). *papaja: Prepare American Psychological Association Journal Articles with R Markdown* (p. 0.1.3) [Dataset]. https://doi.org/10.32614/CRAN.package.papaja

Bandelow, B., & Michaelis, S. (2015). Epidemiology of anxiety disorders in the 21st century. *Dialogues in Clinical Neuroscience*, *17*(3), 327–335. https://doi.org/10.31887/DCNS.2015.17.3/bbandelow

Beaton, D. M., Sirois, F., & Milne, E. (2020). Self-compassion and Perceived Criticism in Adults with Attention Deficit Hyperactivity Disorder (ADHD). *Mindfulness*, *11*(11), 2506–2518. https://doi.org/10.1007/s12671-020-01464-w

Bereza, B. G., Machado, M., Papadimitropoulos, M., Sproule, B., Ravindran, A. V., & Einarson, T. R. (2012). A Markov Model Approach Assessing the Cost of Illness of Generalized Anxiety Disorder in Canada. *Neurology and Therapy*, *1*(1), 1. https://doi.org/10.1007/s40120-012-0001-y

Bhambhani, Y., & Cabral, G. (2016). Evaluating Nonattachment and Decentering as Possible Mediators of the Link Between Mindfulness and Psychological Distress in a Nonclinical College Sample. *Journal of Evidence-Based Complementary & Alternative Medicine*, *21*(4), 295–305. https://doi.org/10.1177/2156587215607109

Bowlby, J. (1982). *Attachment and loss. 1: Attachment* (2. ed). Basic Books.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In *Attachment theory and close relationships* (pp. 46–76). The Guilford Press.

Chio, F. H. N., Lai, M. H. C., & Mak, W. W. S. (2018). Development of the Nonattachment Scale-Short Form (NAS-SF) Using Item Response Theory. *Mindfulness*, *9*(4), 1299–1308. https://doi.org/10.1007/s12671-017-0874-z

Chorpita, B. F., & Barlow, D. H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin*, *124*(1), 3–21. https://doi.org/10.1037/0033-2909.124.1.3

Ciarrochi, J., Sahdra, B. K., Yap, K., & Dicke, T. (2020). The Role of Nonattachment in the Development of Adolescent Mental Health: A Three-Year Longitudinal Study. *Mindfulness*, *11*(9), 2131–2139. https://doi.org/10.1007/s12671-020-01421-7

Colonnesi, C., Draijer, E. M., Jan J. M. Stams, G., Van Der Bruggen, C. O., Bögels, S. M., & Noom, M. J. (2011). The Relation Between Insecure Attachment and Child Anxiety: A Meta-Analytic Review. *Journal of Clinical Child & Adolescent*

Psychology, *40*(4), 630–645. https://doi.org/10.1080/15374416.2011.581623
Cotiga, A. C., Zanfirescu, Ş. A., Iliescu, D., Ciumăgeanu, M., Gotca, I., & Popa, C. O. (2023). Psychometric Characteristics of the Romanian Adaptation of the GAD-7. *Journal of Psychopathology and Behavioral Assessment*, *45*(3), 691–701. https://doi.org/10.1007/s10862-023-10062-8
Craske, M. G., Rauch, S. L., Ursano, R., Prenoveau, J., Pine, D. S., & Zinbarg, R. E. (2011). What Is an Anxiety Disorder? *Focus*, *9*(3), 369–388. https://doi.org/10.1176/foc.9.3.foc369
Egan, S. J., Rees, C. S., Delalande, J., Greene, D., Fitzallen, G., Brown, S., Webb, M., & Finlay-Jones, A. (2022). A Review of Self-Compassion as an Active Ingredient in the Prevention and Treatment of Anxiety and Depression in Young People. *Administration and Policy in Mental Health and Mental Health Services Research*, *49*(3), 385–403. https://doi.org/10.1007/s10488-021-01170-2
Fraley, R. C., Gillath, O., & Deboeck, P. R. (2021). Do life events lead to enduring changes in adult attachment styles? A naturalistic longitudinal investigation. *Journal of Personality and Social Psychology*, *120*(6), 1567–1606. https://doi.org/10.1037/pspi0000326
Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy*, *13*(6), 353–379. https://doi.org/10.1002/cpp.507
Gohel, D., Moog, S., & Heckmann, M. (2025). *officer: Manipulation of Microsoft Word and PowerPoint Documents* (p. 0.6.8) [Dataset]. https://doi.org/10.32614/CRAN.package.officer
Gohel, D., & Skintzos, P. (2024). *flextable: Functions for Tabular Reporting* (p. 0.9.7) [Dataset]. https://doi.org/10.32614/CRAN.package.flextable
Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, *67*(3), 430–445. https://doi.org/10.1037/0022-3514.67.3.430
Ho, C. Y. Y., Yu, B. C. L., & Mak, W. W. S. (2022). Nonattachment mediates the associations between mindfulness, well-being, and psychological distress: A meta-analytic structural equation modeling approach. *Clinical Psychology Review*, *95*, 102175. https://doi.org/10.1016/j.cpr.2022.102175
Javaid, S. F., Hashim, I. J., Hashim, M. J., Stip, E., Samad, M. A., & Ahbabi, A. A. (2023). Epidemiology of anxiety disorders: Global burden and sociodemographic associations. *Middle East Current Psychiatry*, *30*(1), 44. https://doi.org/10.1186/s43045-023-00315-3
Lee, A., & Hankin, B. L. (2009). Insecure Attachment, Dysfunctional Attitudes, and Low Self-Esteem Predicting Prospective Symptoms of Depression and Anxiety During Adolescence. *Journal of Clinical Child & Adolescent Psychology*, *38*(2), 219–231. https://doi.org/10.1080/15374410802698396
Long, J. A. (2024a). *interactions: Comprehensive, User-Friendly Toolkit for Probing Interactions* (p. 1.2.0) [Dataset]. https://doi.org/10.32614/CRAN.package.interactions
Long, J. A. (2024b). *jtools: Analysis and Presentation of Social Scientific Data* (p. 2.3.0) [Dataset]. https://doi.org/10.32614/CRAN.package.jtools
Mcleod, S. (2008). *Erik Erikson's Stages of Psychosocial Development*. Zenodo. https://doi.org/10.5281/ZENODO.15241647
Neff, K. (2003). 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. (2003). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity*, *2*(3), 223–250. https://doi.org/10.1080/15298860309027
Neff, K. D., & Knox, M. C. (2017). Self-Compassion. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–8). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_1159-1
Nielsen, S. K. K., Lønfeldt, N., Wolitzky-Taylor, K. B., Hageman, I., Vangkilde, S., & Daniel, S. I. F. (2017). Adult attachment style and anxiety – The mediating role of emotion regulation. *Journal of Affective Disorders*, *218*, 253–259. https://doi.org/10.1016/j.jad.2017.04.047
Ooms, J. (2025). *writexl: Export Data Frames to Excel "xlsx" Format* (p. 1.5.2) [Dataset]. https://doi.org/10.32614/CRAN.package.writexl
Peng, Y., & Ishak, Z. (2025). Self-compassion as a mediator of attachment anxiety, attachment avoidance, and complex PTSD in college students with adverse childhood experiences. *Scientific Reports*, *15*(1), 786. https://doi.org/10.1038/s41598-024-84947-3
Pérez-Aranda, A., García-Campayo, J., Gude, F., Luciano, J. V., Feliu-Soler, A., González-Quintela, A., López-del-Hoyo, Y., & Montero-Marin, J. (2021). Impact of mindfulness and self-compassion on anxiety and depression: The mediating role of resilience. *International Journal of Clinical and Health Psychology*, *21*(2), 100229. https://doi.org/10.1016/j.ijchp.2021.100229
Phillips, W. J. (2021). Self-compassion mindsets: The components of the self-compassion scale operate as a balanced system within individuals. *Current Psychology*, *40*(10), 5040–5053. https://doi.org/10.1007/s12144-019-00452-1
Rajkumar, R. P. (2022). Comorbid depression and anxiety: Integration of insights from attachment theory and cognitive neuroscience, and their implications for research and treatment. *Frontiers in Behavioral Neuroscience*, *16*, 1104928. https://doi.org/10.3389/fnbeh.2022.1104928
Raskin, P. M. (1986). The Relationship Between Identity and Intimacy in Early Adulthood. *The Journal of Genetic Psychology*, *147*(2), 167–181. https://doi.org/10.1080/00221325.1986.9914491

Revelle, W. (2025). *psych: Procedures for Psychological, Psychometric, and Personality Research* (p. 2.5.3) [Dataset]. https://doi.org/10.32614/CRAN.package.psych

Robinson, D., Hayes, A., & Couch, S. (2025). *broom: Convert Statistical Objects into Tidy Tibbles* (p. 1.0.8) [Dataset]. https://doi.org/10.32614/CRAN.package.broom

Sahdra, B. K., Ciarrochi, J., Parker, P. D., Marshall, S., & Heaven, P. (2015). Empathy and nonattachment independently predict peer nominations of prosocial behavior of adolescents. *Frontiers in Psychology*, *6*. https://doi.org/10.3389/fpsyg.2015.00263

Sahdra, B. K., Shaver, P. R., & Brown, K. W. (2010). A Scale to Measure Nonattachment: A Buddhist Complement to Western Research on Attachment and Adaptive Functioning. *Journal of Personality Assessment*, *92*(2), 116–127. https://doi.org/10.1080/00223890903425960

Sava, F. A., & Negrei, N. (2006). *Adaptarea Inventarului Stilurilor de Atasament La Adulti Pentru Populatia Românească*. *18*, 155–169.

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A Brief Measure for Assessing Generalized Anxiety Disorder: The GAD-7. *Archives of Internal Medicine*, *166*(10), 1092. https://doi.org/10.1001/archinte.166.10.1092

Thompson, R. A., Simpson, J. A., & Berlin, L. J. (2022). Taking perspective on attachment theory and research: Nine fundamental questions. *Attachment & Human Development*, *24*(5), 543–560. https://doi.org/10.1080/14616734.2022.2030132

Tsoi, E. W. S., Tong, A. C. Y., & Mak, W. W. S. (2022). Nonattachment at Work on Well-being Among Working Adults in Hong Kong. *Mindfulness*, *13*(10), 2461–2472. https://doi.org/10.1007/s12671-022-01971-y

Van Dam, N. T., Sheppard, S. C., Forsyth, J. P., & Earleywine, M. (2011). Self-compassion is a better predictor than mindfulness of symptom severity and quality of life in mixed anxiety and depression. *Journal of Anxiety Disorders*, *25*(1), 123–130. https://doi.org/10.1016/j.janxdis.2010.08.011

Van Leeuwen, W. A., Van Wingen, G. A., Luyten, P., Denys, D., & Van Marle, H. J. F. (2020). Attachment in OCD: A meta-analysis. *Journal of Anxiety Disorders*, *70*, 102187. https://doi.org/10.1016/j.janxdis.2020.102187

Watson, J. C., & Sharbanee, J. M. (2022). Emotion Focused Therapy – Case Conceptualization and Treatment: Adults. In *Comprehensive Clinical Psychology* (pp. 105–128). Elsevier. https://doi.org/10.1016/B978-0-12-818697-8.00210-7

Whitehead, R., Bates, G., Elphinstone, B., Yang, Y., & Murray, G. (2018). Letting Go of Self: The Creation of the Nonattachment to Self Scale. *Frontiers in Psychology*, *9*, 2544. https://doi.org/10.3389/fpsyg.2018.02544

Wickham, H., & Bryan, J. (2025). *readxl: Read Excel Files* (p. 1.4.5) [Dataset]. https://doi.org/10.32614/CRAN.package.readxl

Wickham, H., Chang, W., Henry, L., Pedersen, T. L., Takahashi, K., Wilke, C., Woo, K., Yutani, H., Dunnington, D., & Van Den Brand, T. (2024). *ggplot2: Create Elegant Data Visualisations Using the Grammar of Graphics* (p. 3.5.1) [Dataset]. https://doi.org/10.32614/CRAN.package.ggplot2

Wickham, H., François, R., Henry, L., Müller, K., & Vaughan, D. (2023). *dplyr: A Grammar of Data Manipulation* (p. 1.1.4) [Dataset]. https://doi.org/10.32614/CRAN.package.dplyr

World Health Organization. (2023, September 27). *Anxiety Disorders*. https://www.who.int/news-room/fact-sheets/detail/anxiety-disorders