

Relationship between Attachment Styles and Empathy in Young Adults: Mediating Role of Interpersonal Mindfulness

Genç Yetişkinlerde Bağlanma Stilleri ile Empati Arasındaki İlişki: Kişilerarası Bilinçli Farkındalığın Aracı Rolü

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ABSTRACT

Objective: This research was conducted to examine the mediating role of interpersonal mindfulness in the relationship between attachment styles and empathy level in young adults.

Method: The study group consisted of 476 young adults studying at various universities in Turkey who had experience in romantic relationships. The ages of the participants ranged from 18 to 30 ($M=21.00\pm1.86$). Research data were collected using Personal Information Form, Toronto Empathy Scale, Interpersonal Mindfulness Scale, and Experiences in Close Relationships-Revised-Short Form.

Results: Significant negative correlations were found between anxious attachment and interpersonal mindfulness ($r=-.25$) and empathy ($r=-.14$) scores. Negative correlations were found between avoidant attachment and interpersonal mindfulness ($r=-.15$) and empathy ($r=-.11$) scores. Furthermore, a positive and significant relationship was found between interpersonal mindfulness and empathy ($r=.47$) scores. According to the results of the mediation analysis, while the direct effect of anxiety and avoidance levels of young adults on empathy was not significant, the indirect effect and total effect were found to be significant.

Conclusion: Anxious and avoidant attachment styles in young adults significantly predicted empathy level and that interpersonal mindfulness mediated this relationship. This result suggests that problems in close relationships may be associated with attachment styles and interpersonal mindfulness.

Keywords: Attachment styles, interpersonal mindfulness, empathy, young adults

ÖZ

Amaç: Bu araştırma, genç yetişkinlerde bağlanma stilleri ile empati düzeyi arasındaki ilişkide kişilerarası bilinçli farkındalığın aracı rolünü incelemek amacıyla yapılmıştır.

Yöntem: Araştırmanın çalışma grubunu Türkiye'nin çeşitli üniversitelerinde öğrenim gören ve romantik ilişki deneyimi olan 476 genç yetişkin birey oluşturmaktadır. Katılımcıların yaşları, 18-30 yaş aralığında değişmektedir ($M=21.00\pm1.86$). Araştırma verileri Kişisel Bilgi Formu, Toronto Empati Ölçeği, Kişilerarası Bilinçli Farkındalık Ölçeği ve Yakın İlişkilerde Yaşantılar Envanteri Kısa Formu aracılığıyla toplanmıştır.

Bulgular: Kaygılı bağlanma ile kişilerarası bilinçli farkındalık ($r=-.25$) ve empati ($r=-.14$) puanları arasında negatif yönde anlamlı ilişkiler bulunmuştur. Kaçınan bağlanma ile kişilerarası bilinçli farkındalık ($r=-.15$) ve empati ($r=-.11$) puanları arasında negatif yönde anlamlı ilişkiler bulunmuştur. Ayrıca, kişilerarası bilinçli farkındalık ve empati ($r=.47$) puanları arasında da pozitif yönde anlamlı ilişki bulunmuştur. Aracılık analizi sonuçlarına göre genç yetişkinlerin sahip oldukları kaygı ve kaçınma düzeylerinin empati üzerindeki doğrudan etkisi anlamlı değilken dolaylı etkisi ve toplam etkisi anlamlı bulunmuştur.

Sonuç: Genç yetişkinlerde kaygılı ve kaçınan bağlanma stillerinin empati düzeyinin bir yordayıcısı olduğu ve kişilerarası bilinçli farkındalığın bu ilişkiye aracılık ettiği görülmüştür. Bu sonuç yakın ilişkiler ile ilgili sorunların bağlanma stilleri ve kişilerarası bilinçli farkındalık ile ilişkili olabileceğini düşündürmektedir.

Anahtar sözcükler: Bağlanma stilleri, kişilerarası bilinçli farkındalık, empati, genç yetişkin

Introduction

The concept of empathy is a multifaceted construct that is frequently referred to in both daily life and academic literature and plays an important role in individuals' interpersonal relationships, social adjustment, and psychological well-being. In general, empathy is defined as the ability of an individual to put oneself in another's place, to understand that person's feelings and thoughts, and to express this understanding appropriately (Dökmen 2013). This multi-component structure consists of two main elements: cognitive empathy, which enables an individual to understand what the other person is thinking, and affective empathy, which allows an individual to understand the other person's emotions (Davis 1983, Zaki 2014).

Empathy has become a central topic of research across various fields, including psychology, education, health, law, and communication (Decety and Cowell 2014). This widespread interest arises from the recognition that

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empathy is not only a skill that regulates interpersonal relationships but also a construct associated with values such as tolerance, justice, ethical behavior, and social responsibility at the societal level (Singer and Lamm 2009). Empathic capacity, in particular, plays a pivotal role in determining the quality of an individual's relationships within their social environment. One of the main factors shaping the role of empathy in social functioning is the inherently social nature of human beings. Throughout their lives, individuals establish numerous social bonds, and their quality is largely determined by both attachment style and empathic capacity (Bowlby 1982).

Empathy is also associated with the capacity to respect others, to value their perspectives, and to adopt attitudes and behaviors accordingly (Akduman et al. 2018). In this context, empathy is not merely a personal social skill but also a social value that forms the foundation of prosocial behaviors such as helpfulness, cooperation, and sharing (Marsh 2018, van der Graaff et al. 2014). In contemporary contexts, particularly during young adulthood, the development of such socio-cognitive skills plays a crucial role across various domains, ranging from an individual's romantic relationships to academic achievement, as well as access to social support and mental health (Allemand et al. 2015).

Emerging adulthood is a critical developmental stage during which individuals largely complete their identity formation and encounter key developmental tasks such as establishing independent living, developing close relationships, and pursuing vocational pathways (Arnett 2000). During this period, individuals feel a strong need to understand and evaluate both themselves and others within the framework of deeper relationships. Therefore, socio-cognitive skills such as empathy play a central role in young adults' interpersonal relationships as well as in their emotional maturity. Especially in this phase, when romantic relationships become more intense, individuals' empathic capacity serves as an important determinant of relationship satisfaction, conflict resolution, and emotional intimacy (Mikulincer and Shaver 2016). At the core of this developmental stage, attachment relationships stands out as another crucial psychological construct, influencing how individuals form connections both with themselves and with others.

Young adulthood is a developmental stage in which attachment patterns are reshaped not only by traces carried from the past but also through new social roles and relational experiences (Hazan and Shaver 1987, Arnett 2000). During this period, individuals tend for the first time to establish enduring and romantically oriented close relationships. Thus, attachment style is not merely a characteristic inherited from past relationships but also an active construct that shapes current social interactions. In this stage, anxious and avoidant attachment styles in particular provide important insights into the sources of difficulties experienced in social relationships. Individuals with an anxious attachment style may display a turbulent emotional life in romantic relationships due to intense approval seeking, fear of abandonment, and heightened sensitivity, whereas those with an avoidant attachment style may struggle to form healthy bonds because of their tendencies toward emotional distancing, excessive desire for independence, and avoidance of intimacy (Bartholomew and Horowitz 1991, Mikulincer and Shaver 2016).

Considering the intensified romantic and social relationships characteristic of young adulthood, insecure attachment patterns can adversely affect individuals' relationship satisfaction, emotion regulation capacity, tendencies to seek social support, and the development of interpersonal awareness (Karabacak and Demir 2017). In particular, it is essential to examine the roles of attachment anxiety and avoidance in shaping young adults' emotional and social functioning from a multidimensional perspective. Research has shown that attachment styles during young adulthood are closely related to various factors, including relationship satisfaction, commitment levels, coping with stress, and interpersonal communication (Mikulincer and Shaver 2016, Giritli 2024). In this developmental period, where attachment style plays a significant role in social and emotional functioning, its association with social-cognitive skills such as empathy becomes even more pronounced.

According to Bowlby, attachment is a biologically rooted and evolutionarily developed behavioral system that ensures the survival of the child (Bretherton 1992). Attachment styles, particularly those grounded in Bowlby's (1982) theory, provide critical insights into how individuals establish emotional closeness, cope with stress, and form interpersonal relationships. Studies on attachment theory have consistently demonstrated that early relationships with caregivers play a central role in shaping individuals' later social, emotional, and romantic relationships (Sutton 2019).

Recent studies have shown that attachment styles are significantly associated not only with interpersonal relationships but also with various psychological variables such as decision-making, social anxiety, and romantic relationship satisfaction (Karabacak and Demir 2017, Çevik 2024). Therefore, it is important to examine the effects of attachment styles on individuals' emotional and social lives in a multidimensional manner. A comprehensive review of the literature on this subject has revealed that adult attachment styles are particularly related to empathy, emotional intelligence, interpersonal communication, and life satisfaction (Giritli 2024).

Attachment styles are a crucial construct that shape not only individuals' attitudes in emotional relationships but also their awareness of themselves and their surroundings. In particular, it has been observed that individuals with secure attachment develop more mindful and balanced responses both at the intrapersonal and interpersonal levels (Karabacak and Demir 2017, Pratscher et al. 2018). This finding suggests that there is a strong relationship between individuals' capacity for mindfulness and their attachment patterns.

Mindfulness is defined as the individual's experience of the present moment by accepting it without judgment or reactivity; in this process, the individual exhibits conscious attention by being aware of their emotions, thoughts, and bodily sensations (Aktepe and Tolan 2020). This definition particularly encompasses the intrapersonal dimension of mindfulness, which is based on practices where the individual focuses on their inner world. However, mindfulness is not limited to an individual experience; it also emerges as a skill that expands through interpersonal interactions and plays an influential role in relationships with others (Duncan 2007).

The fact that attachment styles guide individuals' attitudes and behaviors in their interpersonal relationships makes the concept of interpersonal mindfulness particularly significant. Mindfulness is defined as the ability to notice the present moment in social interactions, to listen to others without judgment, and to regulate one's emotional and cognitive responses with awareness (Pratscher et al. 2018). It has been reported that individuals with higher attachment security are more open, accepting, and empathic in their interpersonal interactions, whereas those with insecure attachment styles tend to display either overly anxious or avoidant attitudes, making it difficult for them to develop healthy social awareness (Karabacak and Demir 2017). Indeed, recent studies have shown a significant and positive relationship between secure attachment style and interpersonal mindfulness (Yang and Oshio 2023, Çevik, 2024, Yang et al. 2024). These findings indicate that attachment styles affect not only individuals' inner world but also the quality of their relationships with others and the level of mindfulness within those relationships.

Recent studies have revealed that interpersonal mindfulness is strongly associated with various psychosocial variables such as empathy, emotional intelligence, relationship satisfaction, and attachment (Adair et al. 2018, Pratscher et al. 2019). Particularly in the context of romantic relationships and marriage, carefully listening to one another, showing empathy, and being responsive to emotional needs are regarded as significant outcomes of interpersonal mindfulness (Siegel 2010, Erus and Deniz 2020). In this regard, interpersonal mindfulness enhances individuals' awareness during social interactions, strengthens the ability to provide mindful responses instead of automatic and reactive behaviors, and thereby positively influences the quality of interpersonal relationships. However, although the number of studies directly examining the relationship between attachment styles and empathy has been increasing, it appears that potential mediating variables, such as interpersonal mindfulness, have not been sufficiently considered in explaining this relationship.

Emerging adulthood represents a critical stage for romantic relationships, the formation of attachment patterns, and the acquisition of social skills (Arnett 2000). During this developmental transition, social-cognitive abilities such as empathy and the level of interpersonal mindfulness play a decisive role in enabling individuals to establish healthy boundaries, engage in emotional sharing, and achieve social adjustment in both friendships and romantic relationships (Koç et al. 2015). Various studies conducted in Turkey have demonstrated that low levels of empathy among young adults negatively affect both perceived social support and relationship satisfaction. For instance, a study conducted on university students found significant associations between empathy, life satisfaction, and happiness (Kaya and Orçan 2019).

The dependent variable of the study is empathy, while the mediating variable is interpersonal mindfulness. Empathy, as the ability of individuals to understand others' emotions and respond appropriately, is considered more as an outcome variable (Decety and Cowell 2014). In contrast, mindfulness is a process that regulates one's attention and awareness toward both oneself and others. In other words, it functions as a mechanism that shapes how individuals approach situations and how they respond within relationships. Consistent with this, the literature suggests that mindfulness may serve as a mediating variable explaining the effects of attachment styles on socio-emotional outcomes, such as empathy (Pratscher et al. 2018, Donald et al. 2019).

This study aims to fill an important gap both theoretically and practically by examining the mediating role of interpersonal mindfulness in the relationship between attachment styles and empathy (Okan et al. 2020). Understanding relational vulnerabilities observed in young adults more comprehensively will contribute to increasing the effectiveness of university counseling services, social skills training programs for youth, and public mental health policies. Although the number of studies directly investigating the relationship between attachment styles and empathy has been increasing (Khodabakhsh 2012, Ardenghi et al. 2020, de Sanctis and Mesurado 2023), it appears that psychosocial variables that may serve as mediators—such as interpersonal mindfulness—have not been sufficiently addressed in this relationship (Kural and Kovacs 2022, Yan et al. 2022,

Asayesh et al. 2024). Therefore, considering the concepts of empathy, attachment styles, and interpersonal mindfulness together in this study both enhances the explanatory power of the theoretical framework and contributes to understanding the relationship dynamics specific to young adults in the Turkish context. In line with the relevant literature, the aim of this research is to examine the relationship between attachment styles and empathy and to identify the mediating role of interpersonal mindfulness in this relationship. Within this framework, the hypothesis of the study is as follows: Among young adults, the relationship between attachment styles and empathy is better explained through interpersonal mindfulness, which serves as a mediating variable.

Method

The model of this study is based on the relational survey model, one of the quantitative research methods. The relational survey model is a research approach that enables the identification of relationships between two or more variables (Büyüköztürk et al 2018). Within the scope of this research, empathy is considered as the dependent variable, attachment styles as the independent variable, and interpersonal mindfulness as the mediating variable of the study.

Sample

The study group consisted of 476 young adults studying at various universities in Turkey who met the inclusion criteria. Of the participants, 78.4% were female ($n = 373$) and 21.6% were male ($n = 103$). The participants' ages ranged from 18 to 30 years ($M = 21.00 \pm 1.86$). Prior to university, 58.61% of the participants reported residing in a city center, 24.27% in a district center, and 17.02% in a village/town or similar settlement. In addition, 29.62% reported having a low income level, 53.33% a medium income level, and 17.05% a high income level.

The required sample size was determined using the G Power 3.1.9.7 program. The analysis indicated that, for three predictor variables, at least 383 participants were needed to achieve 95% power at a 5% margin of error with a 95% significance level. Considering the possibility of data loss, it was planned to reach a sample size 25% greater than this number.

Emerging adulthood is defined as a critical developmental period during which identity formation, interpersonal relationship skills, and socio-emotional development accelerate (Arnett 2000). Romantic relationship experience was included in the sample because it represents one of the social contexts in which attachment dynamics and empathic tendencies are most prominently expressed (Mikulincer and Shaver 2016). Accordingly, the inclusion criteria for the study group were defined as being between 18 and 30 years of age, being a university student, and having experienced a romantic relationship. Individuals who did not have romantic relationship experience, were outside the specified age range, or were not enrolled in university studies were excluded from the study. Consequently, data obtained from 22 individuals were not included in the research. This approach was intended to ensure the homogeneity of the sample and to limit external factors that could potentially affect the study variables (Büyüköztürk et al. 2018).

Procedure

Prior to the study, permissions for the use of the measurement instruments were obtained from the authors, and ethical approval was granted by the Ethics Committee of Necmettin Erbakan University on May 12, 2025 (Decision No: 2025/376). Following ethical approval, the measurement instruments were distributed electronically to potential participants by the researchers. Data were collected online by the researchers during May and June 2025. Informed consent was obtained electronically from participants prior to data collection, and the scales were administered only after participants had provided their consent. Data with missing responses or those not meeting the inclusion criteria were excluded from the analysis.

Measures

Personal Information Form

It is a form developed by the researcher to determine the characteristics of the study group, such as gender, age, academic year, and other relevant demographic information.

Toronto Empathy Questionnaire (TEQ)

The Toronto Empathy Questionnaire (TEQ), developed by Spreng et al. (2009), is a unidimensional scale consisting of 13 items (e.g., "I get a strong urge to help when I see someone who is upset") designed to measure

empathy in both its cognitive and emotional components. Participants' empathy levels are assessed using a 5-point Likert-type scale (1 = Strongly Disagree, 5 = Strongly Agree). The total score ranges from 13 to 65, with higher scores indicating higher levels of empathy. The internal consistency of the original scale, as indicated by Cronbach's alpha, was found to be .85 (Spreng et al. 2009). The Turkish adaptation of the scale was conducted by Totan et al. (2012), with the Turkish version showing a Cronbach's alpha of .79 and a test-retest reliability coefficient of .73. In the present study, the Cronbach's alpha value for the TEQ was found to be .85.

Interpersonal Mindfulness Scale (IMS)

Interpersonal Mindfulness Scale (IMS), developed by Erus and Tekel (2020), was designed to assess individuals' levels of mindfulness during interpersonal interactions. The scale consists of 13 items (e.g., "When interacting with someone, I understand how they feel.") and uses a 5-point Likert-type response format (1 = Almost Never, 5 = Almost Always). The scale includes two sub-dimensions: "awareness" and "being in the moment." Total scores range from 13 to 65, with higher scores indicating higher levels of interpersonal mindfulness. The internal consistency of the scale, as indicated by Cronbach's alpha, was calculated as .86 for the total scale (Erus and Tekel 2020). In the present study, the Cronbach's alpha value was found to be .78.

The Experiences in Close Relationships-Revised-Short Form (ECR-RS)

The Experiences in Close Relationships-Revised Short Form (ECR-RS), developed by Antyalı and Özkul (2016), was designed to assess individuals' attachment styles and attachment dynamics in close relationships. The scale consists of 9 items (e.g., "I am reluctant to open up to friends I get close to") and uses a 7-point Likert-type response format (1 = Not at all, 7 = Completely). It includes two sub-dimensions: anxious attachment and avoidant attachment. Higher scores on the anxious attachment subscale indicate that the individual experiences intense feelings of fear of abandonment and insecurity in relationships, whereas higher scores on the avoidant attachment subscale indicate a tendency to avoid close relationships. The internal consistency of the scale, as measured by Cronbach's alpha, was calculated as .84 for the anxious attachment subscale and .87 for the avoidant attachment subscale (Antyalı and Özkul 2016). In the present study, the Cronbach's alpha values were found to be .86 for anxious attachment and .83 for avoidant attachment.

Statistical Analysis

In the study, missing data were first checked. Descriptive analyses were conducted to determine whether the research data met the inclusion criteria. To test the assumptions of parametric analyses, the normal distribution characteristics of the data were examined, and skewness and kurtosis analyses were performed. Skewness and kurtosis coefficients between -1 and +1 were considered indicative of a normal distribution (Çokluk et al. 2016). To assess the reliability of the data, Cronbach's alpha internal consistency coefficients were calculated for each measurement instrument. Pearson correlation analysis was conducted to examine the relationships among attachment styles, interpersonal mindfulness, and empathy levels. Subsequently, mediation analysis was performed to test the direct and indirect effects of attachment styles (anxious-avoidant) on empathy. In the model, anxious and avoidant attachment were specified as independent variables, empathy as the dependent variable, and interpersonal mindfulness as the mediating variable. The statistical significance of the effect values obtained from the mediation analysis was evaluated using the bootstrap method (Hayes 2018). The bootstrap analysis was performed with 5.000 resamples at a 95% confidence interval. All analyses were carried out using Jamovi 2.6.44 (medmod), an open-source R-based statistical software.

Results

The means, standard deviations, minimum and maximum values, skewness and kurtosis values, as well as the correlation results of the variables examined in the study are presented in Table 1.

Table 1. Descriptive statistics and correlation results for the variables

	1	2	3	M.	SD.	Min.	Max.	Skew.	Kurt.
1. Anxiety	-			9.56	4.28	3.00	21.00	.41	-.23
2. Avoidance	.06	-		21.60	6.37	6.00	42.00	.03	.07
3. Mindfulness	-.25**	-.15**	-	48.10	6.17	28.00	63.00	-.17	-.01
4. Empathy	-.14**	-.11*	.47**	52.40	7.76	21.00	65.00	-.66	.25

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

When Table 1 is examined, skewness values were found to range between -.66 and .41, and kurtosis values ranged between -.23 and .25. Skewness and kurtosis values indicate that the data exhibited normal distribution

characteristics. Pearson correlation analysis was conducted to determine the relationships among attachment styles, interpersonal mindfulness, and empathy scale scores. According to the analysis results, significant negative correlations were observed between the anxiety dimension of attachment and interpersonal mindfulness ($r = -.25, p < .01$) as well as empathy ($r = -.14, p < .01$). Significant negative correlations were also found between the avoidance dimension of attachment and interpersonal mindfulness ($r = -.15, p < .01$) and empathy ($r = -.11, p < .01$). Furthermore, a significant positive correlation was observed between interpersonal mindfulness and empathy ($r = .47, p < .01$).

Mediation Analysis

The results of the mediation analysis examining the mediating role of interpersonal mindfulness in the relationship between attachment styles and empathy are presented in Figure 1. First, the findings of the study indicate that the anxiety ($B = -.36, p < .01$) and avoidance ($B = -.15, p < .01$) dimensions of attachment in young adults have a significant negative effect on interpersonal mindfulness. Second, participants' level of interpersonal mindfulness ($B = .58, p < .01$) was found to have a significant positive effect on empathy. Third, the total effects of participants' anxiety ($B = -.25, p < .01$) and avoidance ($B = -.14, p < .01$) dimensions on empathy were significant. When the direct and indirect effects were examined, the direct effects of anxiety ($B = -.04, p > .05$) and avoidance ($B = -.05, p > .05$) on empathy were not significant. However, the indirect effects of anxiety ($B = -.21, 95\% \text{ CI} = -.29 \text{ to } -.13$) and avoidance ($B = -.09, 95\% \text{ CI} = -.14 \text{ to } -.04$) on empathy through interpersonal mindfulness were found to be significant.

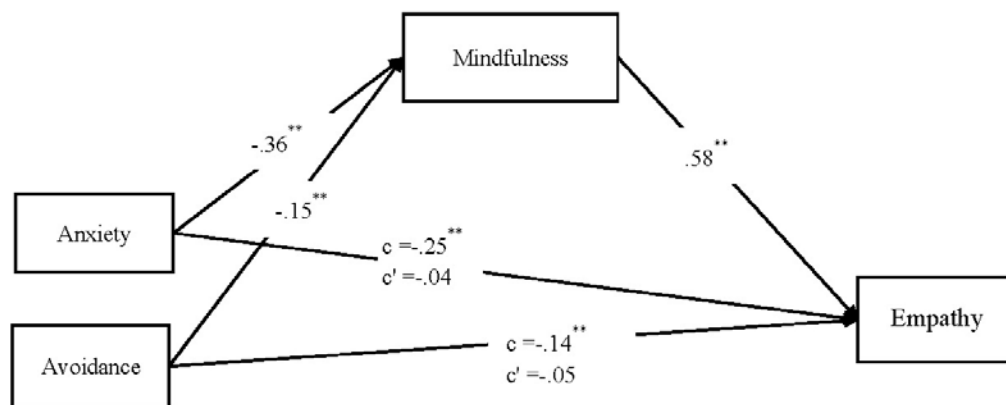


Figure 1. The mediating effect model

The findings confirm the mediating role of interpersonal mindfulness in the impact of attachment styles on empathy among young adults in close relationships. Specifically, increases in individuals' levels of anxiety and avoidance in close relationships lead to decreases in their interpersonal mindfulness. As interpersonal mindfulness decreases, empathy levels also decline. The results indicate that interpersonal mindfulness serves as a full mediator between attachment and empathy. To determine the confidence intervals for the effect sizes, a bootstrapping procedure with 5.000 resamples and a 95% confidence interval was performed. The results of the path analysis among the variables, along with the corresponding confidence intervals, are presented in Table 2.

Table 2. Path analysis and confidence intervals for the model						
	B	SH	Z	p	95%	
Direct Impact					Lower	Upper
Anxiety → Mind.	-.36	.06	-5.65	<.01	-.49	-.24
Avoidance → Mind.	-.15	.04	-3.35	<.01	-.23	-.06
Mind. → Empathy	.58	.05	11.06	<.01	.48	.69
Anxiety → Empathy	-.04	.08	-.48	.64	-.18	.11
Avoidance → Empathy	-.05	.05	-1.01	.31	-.15	.05
Indirect Effect						
Anxiety → Empathy	-.21	.4	-5.02	<.01	-.29	-.13
Avoidance → Empathy	-.09	.03	-3.21	<.01	-.14	-.04
Total Effects						
Anxiety → Empathy	-.25	.07	-2.98	<.01	-.41	-.08
Avoidance → Empathy	-.14	.06	-2.45	<.01	-.25	-.03

Mind. = Mindfulness

Discussion

As a result of the study, anxious and avoidant attachment styles in young adults were found to significantly predict empathy levels in a negative direction. This finding is consistent with the literature, which suggests that anxious attachment may impair empathic abilities due to heightened emotional intensity, while avoidant attachment may weaken empathy as a result of emotional distancing (Mikulincer and Shaver 2016). Furthermore, the nonsignificant direct effects alongside significant indirect effects indicate that this relationship can be better explained through indirect mechanisms. This inference highlights the complex nature of the impact of attachment styles on empathy (Bowlby 1982). In conclusion, the findings of the study support the hypothesis regarding the predictive effect of attachment styles on empathy.

The present study revealed that anxious and avoidant attachment styles have a significant negative effect on the level of interpersonal mindfulness. This finding suggests, in line with attachment theory (Bowlby 1982), that the relational structures individuals form with themselves and others can influence their level of mindfulness. Kabat-Zinn (2003) emphasizes that mindfulness requires focusing on the present moment, whereas Brown and Ryan (2003) indicate that individuals experiencing attachment anxiety or avoidance are often preoccupied with past traumas or potential relational threats, which can impede the development of empathic relationships. A study conducted by Spatz (2024) found that interpersonal mindfulness training significantly increased empathy and social connectedness among medical students. This finding highlights that interpersonal mindfulness is an important factor supporting empathic skills, particularly in individuals under high stress. Similar results have been reported in studies conducted in Turkey. Erus and Tekel (2020) reported that interpersonal mindfulness levels were significantly associated with both cognitive and emotional awareness and could predict empathic attitudes. Additionally, a group psychological counseling program with married individuals conducted by Uzun and Deniz (2021) found that mindfulness-based approaches enhanced interpersonal mindfulness levels. This increase was observed to positively affect both individuals' emotional sharing and empathic responses. Likewise, Donald et al. (2019) demonstrated that mindfulness levels are associated with attachment security.

The findings of the study revealed that levels of interpersonal mindfulness significantly and positively predict empathy. This finding is highly consistent with the literature emphasizing the importance of mindfulness practices in the development of empathy (Dekeyser et al. 2008, Birnie et al. 2010). According to Safran and Muran (2000), interpersonal mindfulness involves an individual's awareness of both their own internal experiences and the emotional states of others. This form of awareness facilitates more sensitive and meaningful empathic responses. Additionally, Shapiro et al. (2006) found that mindfulness practices can enhance individuals' emotional intelligence and levels of empathy. The positive relationship observed in the present study aligns with this theoretical framework.

The results of the mediation analysis indicated that the direct effects of anxious and avoidant attachment styles on empathy were not significant; however, their indirect effects through interpersonal mindfulness were significant. This finding suggests that the psychological processes shaping empathy are not solely determined by individuals' attachment patterns but are also related to the level of awareness with which they approach these relational experiences. Recent literature similarly supports the notion that mindfulness can play a mediating role (Lutz et al. 2015, Donald et al. 2019). Consequently, the research hypothesis was confirmed, and the results are consistent with previous studies in the field.

The present study demonstrated that attachment styles predict empathy levels among young adults through interpersonal mindfulness. This finding highlights the predictive power of mindfulness-based variables, often referred to in the recent literature as an "emotional bridge," on socio-emotional skills (Neff and Beretvas 2013, Sünbül 2021). Here, the translation of attachment-based individual differences into social skills such as empathy occurs through an individual's internal awareness and social sensitivity. Moreover, this finding aligns with the social connectedness model proposed by Decety and Cowell (2015), which posits that empathy is not only the ability to understand another's state but also the capacity to regulate this understanding in accordance with one's own internal state. Within this framework, interpersonal mindfulness functions as a regulatory mechanism at both intersubjective and subjective levels, shaping empathic responsiveness. Evaluated within the context of attachment theory, the findings support the notion that an individual's sense of internal security influences not only personal affect but also openness and sensitivity to others' emotional experiences (Mikulincer and Shaver 2016). In this regard, interpersonal mindfulness should be considered a crucial cognitive-emotional regulator that enhances empathic responses. Indeed, recent studies have shown that mindfulness-based approaches yield positive outcomes for interpersonal sensitivity and social functioning (Brown and Ryan 2003, Decety and Jackson 2004).

Conclusion

This study demonstrated that anxious and avoidant attachment styles predict empathy levels among young adults and that interpersonal mindfulness mediates the relationship between anxious and avoidant attachment and empathy. Previous research in the literature has primarily examined the relationships among these variables separately. The present study examined the structure formed by the relationships among anxious and avoidant attachment styles, interpersonal mindfulness, and empathy levels together and tested it within a model. The results obtained are consistent with the findings reported in the relevant literature.

Although the study yielded findings consistent with the relevant literature, it presents several limitations. This research is cross-sectional in nature, and the ordering of attachment styles, interpersonal mindfulness, and empathy variables was based on a theoretical framework. The results were evaluated correlationally, and the lack of experimental testing of this ordering can be considered a factor limiting the causal validity of the mediation model. Since data were collected through self-report measures, participants' responses may have been influenced by their subjective perceptions. Furthermore, variables such as family relationships and socioeconomic status were not controlled, and their potential effects on the obtained findings should be considered as limitations. The study did not assess whether participants had psychopathological diagnoses such as major depressive disorder, personality disorders, or anxiety disorders. Therefore, the inclusion of individuals with these disorders in the sample constitutes a potential factor that may limit the interpretation of the results. This issue should be regarded as a significant limitation, and the findings should be interpreted within this context.

The findings of the study provide a basis for developing various theoretical and practical recommendations. First, the identification of interpersonal mindfulness as a full mediator in the relationship between attachment styles and empathy underscores the importance of this variable in socio-emotional developmental processes. Based on this insight, future research could examine the relationships of interpersonal mindfulness not only with empathy but also with other social and cognitive variables, such as prosocial behaviors, interpersonal conflict resolution skills, and emotional regulation. In this way, more comprehensive models could be developed to explain different dimensions of social functioning. Similarly, the fact that the study sample consisted exclusively of young adults and that the study employed a cross-sectional design limits the ability to make causal inferences. Therefore, future research involving different age groups and longitudinal designs could more robustly test the temporal effects of attachment patterns on mindfulness and empathic response processes. Moreover, conducting the study with individuals who have romantic relationship experience suggests that the findings may be specific to this group. This choice is based on the tendency for attachment styles to manifest more prominently in romantic relationships and also represents a limitation in terms of generalizability.

From a practitioner's perspective, supporting interpersonal mindfulness skills in psychoeducational or therapeutic programs—particularly for individuals experiencing attachment-related difficulties—may contribute to the development of empathy. In this context, the empathy-enhancing effects of mindfulness-based intervention programs can be systematically tested in applied settings. For mental health professionals, these findings offer valuable insights for understanding attachment dynamics and enhancing empathic capacity within therapeutic processes. Moreover, from a policy-making perspective, the widespread implementation of programs that support empathy and interpersonal mindfulness, especially during early adulthood, has the potential to strengthen social cohesion and psychological well-being at the societal level. Finally, employing qualitative research designs to explore individuals' experiences of interpersonal mindfulness and empathy in depth could provide a multidimensional understanding of the topic. Given that attachment and mindfulness structures are known to exhibit cross-cultural variations (Mesquita 2001), adopting multicultural research designs could offer valuable contributions to the existing literature.

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