

Examining the Fit of the Psychological Well-being Model of Adolescents Based on Attachment Styles with the Mediation of Emotion Regulation

Roja. Khanizadeh¹, Davood. Taghvaei^{2*}, Firoozeh. Zanganeh Motlagh³

¹ PhD Student, Department of Psychology, Arak Branch, Islamic Azad University, Arak, Iran

² Associate Professor, Department of Psychology, Arak Branch, Islamic Azad University, Arak, Iran

³ Assistant Professor, Department of Psychology and Counseling, Arak Branch, Islamic Azad University, Arak, Iran

* Corresponding author email address: davoodtaghvaei@yahoo.com

Article Info

Article type:

Original Research

How to cite this article:

Khanizadeh, R., Taghvaei, D., & Zanganeh Motlagh, F. (IN PRESS). Examining the Fit of the Psychological Well-being Model of Adolescents Based on Attachment Styles with the Mediation of Emotion Regulation. *Journal of Adolescent and Youth Psychological Studies*.
<http://dx.doi.org/10.61838/kman.jayps.6.x.x>



© 2024 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Objective: Adolescence is a critical period of human development during which adolescents encounter numerous factors. This study aimed to examine the fit of the psychological well-being model of adolescents based on attachment styles, with the mediation of emotion regulation.

Methods and Materials: The research design was applied in nature, using a descriptive-correlational method with a structural modeling approach. The statistical population included all adolescents studying in the second secondary school level in Tehran during the 2020-2021 academic year. The sample consisted of 400 individuals selected from the research population using cluster sampling. The tools used in this study included the Psychological Well-being Questionnaire (Ryff, 1989), the Attachment Questionnaire (Collins & Read, 1990), and the Difficulties in Emotion Regulation Questionnaire (Grazt & Roemer, 2004). For data analysis, SPSS-24 software was used for descriptive statistics, and the AMOS-22 software was used for inferential statistical analyses to test and confirm or reject the hypotheses through structural equation modeling.

Findings: The findings indicated that, considering the chi-square and RMSEA criteria, the psychological well-being model of adolescents based on attachment styles, with the mediation of emotion regulation, provided a suitable fit to the data.

Conclusion: Emotion regulation mediates between psychological well-being and attachment style, meaning that attachment style can indirectly enhance psychological well-being by reducing emotional dysregulation.

Keywords: Psychological well-being, attachment styles, emotion regulation

1. Introduction

Adolescence brings new changes to the psychological system, including thinking and planning for the future, evaluating alternatives, introspection, reasoning, abstract thinking, new levels of autonomy and assertiveness, and generally new cognitive and sexual abilities (Xu, 2024). Additionally, adolescence is framed within unfavorable social conditions, including family and peer pressures, social and cultural norms, and the complex demands of society and social groups, which prolong the period of adolescence and delay the fulfillment of adult responsibilities (Zare Mazloom et al., 2024). During this period, various psychological problems may occur (Sarfika et al., 2024). Furthermore, factors such as violence, poverty, stigma, and deprivation affect adolescents' mental health. The consequences of neglecting the mental health and psychological well-being of adolescents extend into adulthood and disrupt physical and mental health (Park et al., 2014). Therefore, one of the significant influential variables during adolescence is psychological well-being (Piñeiro-Cossio et al., 2021).

From an international perspective, numerous studies support the importance of assessing psychological well-being during adolescence (Verzeletti et al., 2016). In this regard, how adolescents value their peers and have power in peer groups is reflected in their evaluations of aspects related to their emotional relationships with family, peer groups, and self-acceptance. There is an undeniable relationship between psychological well-being and variables of self-concept and the quality of social relationships that adolescents establish with family, partners, and friends (Marrero-Quevedo et al., 2019). Consequently, it is interesting to pay attention to this particular moment of maturity and consider the diversity of interests and issues that can be found in this specific stage of life.

Psychological well-being is currently considered a construct that lacks a well-defined theoretical structure (Carneiro et al., 2019; Freire et al., 2017). However, this concept can be directly related to how individuals evaluate their quality of life and whether they give it a positive and favorable assessment from a systemic and holistic perspective. As a result, psychological well-being can be associated with high self-esteem, positive disposition, and low levels of depressive symptoms (Emami Khotbesara et al., 2024; F., 2024).

From an evolutionary perspective, psychological well-being is related to terms of quality of life and mental health (Popescu, 2016; Sarafraz et al., 2019). In this sense, quality

of life is understood from a multidimensional perspective that addresses the most relevant dimensions of an individual's life (Cancino et al., 2016). This includes both material and non-material aspects, as explained in Maslow's hierarchy of needs - physiological, safety, love, and belonging to social groups. However, mental health concerning psychological well-being has only been associated with non-material factors with a distinct clinical interpretation. Some of these factors include establishing emotional relationships with significant others and nurturing and developing self-esteem, self-concept, or self-image (Latipun et al., 2019). The concept of psychological well-being considers the individual and social dimensions that individuals subjectively evaluate. Thus, many authors include questions related to social and emotional relationship domains (Latipun et al., 2019), as well as aspects related to family and work context simultaneously (Freedman et al., 2017; Páez-Gallego et al., 2020; Piñeiro-Cossio et al., 2021).

Although psychological well-being is generally understood as a personal effort for continuous self-improvement, with a clear aim of self-fulfillment in positive conditions, it should be noted that another conception exists. The subjective evaluation of well-being by individuals should be understood as the absence of problems and/or the presence of pleasant and satisfactory feelings (Freedman et al., 2017). The aforementioned conceptualizations inherit the classic components of subjective well-being, emphasizing life satisfaction, capacity development, and self-awareness.

However, Ryff (1989) proposed a model that, by bringing together aspects of all previous conceptualizations, has found special relevance within the scientific community. This model recognizes the subjective nature of psychological well-being, according to which individuals assess the variable based on their satisfaction level with the six dimensions constituting the model. Ryff and Singer (1996) proposed six dimensions for psychological well-being: 1) self-acceptance, including positive feelings about past experiences and acceptance of good and bad traits; 2) positive relations with others, including warm, trusting, and satisfying relationships with others, as well as empathy and guidance; 3) autonomy, including self-determination, independence, resistance to pressures, and an internal source of approval; 4) environmental mastery, including choosing and creating environments suitable for psychological needs and individual values; 5) purpose in life; 6) personal growth, indicating growth and openness to new experiences and

challenges (Ryff, 2018; Ryff & Singer, 2010). Ryff (2018) called this six-dimensional model the Integrated Model of Personal Development (IMPD), which influences happiness and subsequent perception of satisfaction with personal and professional goals achieved (Ryff, 2018).

In this regard, how adolescents value their peers and the power of the group is reflected in their evaluations of aspects related to their emotional relationships with family, peer groups, and self-acceptance. There is an undeniable relationship between psychological well-being and variables of self-concept and the quality of social relationships that adolescents establish with family, partners, and friends (Chen et al., 2017). Consequently, it is interesting to pay attention to this particular moment of maturity and consider the diversity of interests and issues that can be found in this specific stage of life.

One of the variables related to psychological well-being is attachment style. Notably, emotional experiences in childhood affect the type and quality of relationships that individuals experience in adolescence and adulthood. Therefore, a set of attachment theories provides important frameworks for examining the quality of close relationships throughout an individual's life (Cassidy & Shaver, 1999). Generally, based on a classified approach, widely developed from Bowlby's model, attachment based on security is defined as trust in the emotional availability and accessibility of primary figures perceived as a secure base to restore emotional balance in distressing and needed situations (Bowlby, 2008). Attachment characterized by anxiety is defined as a perceived inability to face challenges alone, which increases the desire for interpersonal closeness, love, and support despite maladaptive behavior of attachment figures (Griffin & Bartholomew, 1994). Finally, attachment related to avoidance is characterized by difficulties in interpersonal relationships, concerns about trusting people, and a significant emphasis on independence and autonomy, useful for avoiding feelings triggered by rejection by others (Bartholomew, 1990). According to Bowlby's developmental attachment theory (1980), early caregiving experiences generally become stable internal working models of attachment over time. They often guide individuals in seeking relationships, especially intimate ones, in the future (Simpson & Campbell, 2013). If attachment-related mental representations are positive, individuals can form secure attachments with sufficient self-esteem, emotional stability, and favorable perceptions of both self and others. These positively affect individuals' cognition, emotion regulation, and behavior, which in turn

positively influence their well-being (Simpson & Campbell, 2013; Cassidy et al., 1988).

Conversely, if attachment experiences with primary figures are insufficient to form secure internal working models, individuals may choose attachments defined by two types of insecure strategies (Simpson & Campbell, 2013). Typically, in individuals with anxious attachment (Simpson & Campbell, 2013; Chris Fraley, 2013; Fraley & Marks, 2011), hyperactivating strategies include a high need for care, constant search for closeness and protection, rumination, and intense worry about abandonment. In contrast, in individuals with avoidant attachment, deactivating strategies are characterized by high self-reliance, distance, emotional detachment, alienation from others, and suppression of attachment-related desires and thoughts (Cassidy & Shaver, 1999).

Attachment orientation may vary across an individual's lifespan (Chopik & Edelstein, 2014; Chopik et al., 2013). Specifically, adolescents and young adults experience more attachment anxiety, whereas older adults and middle-aged individuals experience less (after forming stable intimate relationships) (Chopik & Edelstein, 2014; Hudson et al., 2015). Furthermore, higher levels of attachment avoidance may be associated with changes in young adulthood (Chopik et al., 2013). The study by Nourialeagha et al. (2020) showed that avoidant-anxious attachment negatively correlates with gratitude and lower levels of psychological well-being. Secure attachment positively correlates with both outcomes (Nourialeagha et al., 2020).

Additionally, the literature widely supports the positive association between secure attachment and individual well-being, and researchers often focus their investigations on the subjective component of well-being (e.g., life satisfaction, positive and negative affect) rather than psychological components (Chen et al., 2017; Marrero-Quevedo et al., 2019; Molero et al., 2017). Specifically, Karreman and Vingerhoets (2012) found that anxious attachment is associated with lower levels of well-being, whereas secure and avoidant attachments are associated with higher levels of well-being (Karreman & Vingerhoets, 2012). In the study by Marrero et al. (2018), the correlation between secure attachment and positive dimensions of psychological well-being was positive, whereas the correlation between avoidant/anxious attachment and psychological well-being was negative (Marrero-Quevedo et al., 2019).

Another variable related to psychological well-being and attachment style is difficulty in emotion regulation, also known as emotional regulation disorder. Emotion regulation

refers to the processes through which individuals pay attention to their emotions, manage the intensity and duration of emotional arousal, and change the nature and meaning of emotional states in the face of stressful or distressing situations (Thompson, 1994; Verzeletti et al., 2016). Various models describe emotion regulation. One of them is Gross's emotion regulation process model (2002), based on two strategies: cognitive reappraisal and expressive suppression. Cognitive reappraisal is a preventive strategy (before the onset of emotions) that reduces the emotional impact of an emotion-evoking event by changing the interpretation and evaluation of the event. On the other hand, expressive suppression is a response-focused strategy (after the onset of emotions) aimed at suppressing experienced emotions (Gross, 2002). Another issue is Gratz and Roemer's (2004) model of emotion regulation, which conceptualizes emotion regulation as a multidimensional structure, including (a) awareness, understanding, and acceptance of emotions; (b) the ability to control impulsive behaviors and engage in goal-directed behaviors when experiencing negative emotions; (c) flexible use of non-avoidant and situation-appropriate strategies to modulate the intensity and duration of emotional responses to meet individual goals and situational demands; and (d) willingness to experience negative emotions in pursuit of meaningful activities in life (Gratz & Roemer, 2004). Problems in any of these areas may increase the risk of psychopathology or maladaptive behaviors (Verzeletti et al., 2016). Some studies support the relationship between emotion regulation and psychological well-being, while others support the relationship between attachment style and emotion regulation (new reference). For instance, Varezlaty et al. (2016) found that greater reliance on cognitive reappraisal was positively associated with better well-being outcomes for most indices, particularly life satisfaction, perceived social support, and positive affect. In contrast, expressive suppression was associated with lower well-being levels for all indices, including mental health, emotional loneliness, and negative affect (Verzeletti et al., 2016).

Psychological well-being during adolescence is crucial and one of the most important determinants of mental health in adulthood. Previous research has supported the relationship between psychological well-being and attachment style, suggesting that close relationships can serve as a protective factor for long-term emotional stability and psychological well-being (Karreman & Vingerhoets, 2012; Marrero-Quevedo et al., 2019; Molero et al., 2017;

Nourialegha et al., 2020; Stevenson et al., 2019). Additionally, studies have shown that emotion regulation variables predict academic, interpersonal, and emotional well-being outcomes (Ivcevic & Eggers, 2021; Karreman & Vingerhoets, 2012; Simpson & Campbell, 2013; Stevenson et al., 2019; Verzeletti et al., 2016). The aim of this research is to explain this relationship by examining the mediating role of emotion regulation. The results of this study, in addition to identifying the role of some factors related to adolescents' mental health, can be useful in explaining how psychological well-being and attachment style are related. Therefore, the main objective of this research is to determine the mediating role of emotion regulation in the relationship between psychological well-being and attachment style.

2. Methods and Materials

2.1. Study Design and Participants

The present study is an applied research conducted using a descriptive-correlational method with a structural model approach. The research population included all adolescents studying in the second secondary school level in Tehran during the 2020-2021 academic year. The research sample consisted of 400 individuals selected through cluster sampling. To select the sample, first, one district was randomly chosen from the 22 districts of Tehran. Then, five high schools were randomly selected from that district. Subsequently, two classes were randomly chosen from each selected high school. The objectives of the research were explained, and consent was obtained from the sample members for participation in the research. The participants were then assessed using the specified questionnaires.

2.2. Measures

2.2.1. Psychological Well-being

This scale was developed by Carol Ryff in 1989. It includes 84 items and 6 factors. Participants respond to the items on a 6-point scale (from strongly disagree to strongly agree). Forty-seven items are scored directly, and thirty-seven items are reverse-scored. Ryff used measures such as the Bradburn Affective Balance Scale (1969), Neugarten Life Satisfaction Index (1965), and Rosenberg Self-Esteem Scale (1965) to examine the validity of the instrument and its relationship with measures assessing personality traits, which are also considered indicators of psychological well-being. The correlation results of Ryff's test with each of the aforementioned scales were acceptable, thus indicating the

construct validity of the instrument (Ryff, 1989). Cronbach's alpha obtained in Ryff's study (1989) for self-acceptance was 0.93, positive relations with others 0.91, autonomy 0.86, environmental mastery 0.90, and personal growth 0.87. In Iran, a study conducted with a student sample assessed internal consistency using Cronbach's alpha, yielding results for environmental mastery 0.77, personal growth 0.78, positive relations with others 0.77, purpose in life 0.70, self-acceptance 0.71, autonomy 0.78, and overall score 0.82. The validity of this scale was also estimated to be appropriate (Sarafraz et al., 2019).

2.2.2. Attachment Styles

This scale includes self-assessment of relationship-building skills and self-description of attachment formation styles towards close attachment figures. It consists of 18 items rated on a 5-point Likert scale, ranging from "does not describe me at all" to "completely describes me." Factor analysis identified three subscales, each containing six items:

Dependence (D): Measures the extent to which individuals trust and rely on others, assessing their perceived availability in times of need.

Closeness (C): Measures comfort in emotional intimacy and closeness.

Anxiety (A): Assesses fear of having a relationship.

Collins and Read (1990) based their questionnaire items on descriptions in the Hazan and Shaver Adult Attachment Questionnaire regarding the three main attachment styles. The Anxiety subscale (A) corresponds to anxious-ambivalent attachment, the Closeness subscale (C) corresponds to secure attachment, and the Dependence subscale (D) can be considered almost the opposite of avoidant attachment. Scoring for the questionnaire assigns values from 0 to 4 for options 1 to 5, respectively. Questions 1, 6*, 8*, 13, 12, 17* measure secure attachment. Questions 5*, 2, 16*, 14, 7, 18* assess avoidant attachment, and questions 3, 4, 9, 10, 11, 15 measure ambivalent/anxious attachment. Questions marked with an asterisk are reverse-scored. The scores of the six items in each subscale are summed to obtain the subscale score. Collins and Read

(1990) reported the reliability of the questionnaire using Cronbach's alpha as 0.80. Pakdaman (2001) reported the test-retest reliability with a one-month interval on 105 boys and girls in Tehran as 0.95 (Nourialeagha et al., 2020).

2.2.3. Difficulties in Emotion Regulation

This 36-item scale was designed by Gratz and Roemer (2004). It provides a total score and six subscale scores related to different aspects of difficulties in emotion regulation. The subscales include: non-acceptance of emotions, inability to engage in goal-directed behaviors, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. Responses are given on a 5-point Likert scale (1 = almost never to 5 = almost always). The reliability and validity of this scale were examined in a sample of 479 undergraduate students. The scale showed good internal consistency in the total score (Cronbach's alpha = 0.93) and all subscales (alpha > 0.80). Heidari et al. (2009) assessed the reliability and validity of this scale in Iran. The reliability was calculated using Cronbach's alpha and split-half methods, yielding values of 0.84 and 0.76, respectively, indicating good reliability. Aminian (2009) also calculated the reliability of this questionnaire using Cronbach's alpha and split-half methods, reporting values of 0.86 and 0.80, respectively, indicating acceptable reliability coefficients for the emotion regulation questionnaire (Malekzadeh et al., 2024).

2.3. Data analysis

The collected data were entered into SPSS version 24 and analyzed using AMOS version 22 through structural equation modeling.

3. Findings and Results

The subjects of this study were 400 students, consisting of 224 girls and 176 boys. The results of the mean, standard deviation, skewness, and kurtosis of the research variables are presented in Table 1.

Table 1

Descriptive Statistics of Research Variables in Students

Variable	Component	Mean	Standard Deviation	Skewness	Kurtosis
Psychological Well-being	Environmental Mastery	47.59	11.73	0.16	-0.12
	Personal Growth	44.50	11.55	0.16	-0.40
	Positive Relations with Others	46.90	11.57	0.47	0.52
	Purpose in Life	46.31	11.09	0.15	0.27
	Self-Acceptance	45.28	10.84	-0.16	0.40
Attachment	Autonomy	44.89	11.87	0.40	0.83
	Dependence	12.96	5.05	0.16	-0.02
	Closeness	13.24	4.77	-0.02	0.22
Difficulties in Emotion Regulation	Anxiety	12.15	5.25	0.20	-0.02
	Non-Acceptance of Emotions	18.90	5.05	-0.06	-0.13
Regulation	Difficulty in Goal-Directed Behavior	20.30	4.60	-0.31	-0.48
	Impulse Control Difficulties	19.97	4.61	-0.29	-0.37
	Lack of Emotional Awareness	20.29	4.29	-0.30	-0.73
	Limited Access to Emotion Regulation Strategies	21.18	3.98	-0.23	-0.37
	Lack of Emotional Clarity	19.64	5.03	-0.15	-0.20

Before analyzing the data using structural equation modeling, the normality assumption of the data was tested using the Kolmogorov-Smirnov test, as shown in [Table 2](#).

The results of the model fit indices for the final research model are presented in [Table 3](#).

Table 2

Kolmogorov-Smirnov Test

Variable	Component	Test Statistic	p
Psychological Well-being	-	0.532	0.703
Attachment	Dependence	0.361	0.641
	Closeness	0.346	0.635
	Anxiety	0.298	0.617
Difficulties in Emotion Regulation	-	0.199	0.579

Table 3

Fit Indices

Index Type	Index Name	Abbreviation	Value	Acceptable Fit
Absolute Fit Indices	Chi-Square	-	948.00	-
	Goodness of Fit Index	GFI	0.88	> 0.80
Comparative Fit Indices	Adjusted Goodness of Fit Index	AGFI	0.85	> 0.80
	Comparative Fit Index	CFI	0.96	> 0.90
Parsimony Fit Indices	Root Mean Square Error of Approximation	RMSEA	0.059	< 0.10

Based on the results in [Table 3](#), all the fit indices of the final research model indicate that the model has a suitable fit. The results of the model fitting predicting adolescents' psychological well-being based on attachment style with the

mediating role of emotion regulation, along with the standardized path coefficients, are presented in [Error! Reference source not found.](#)

Figure 1

Model with T-Values

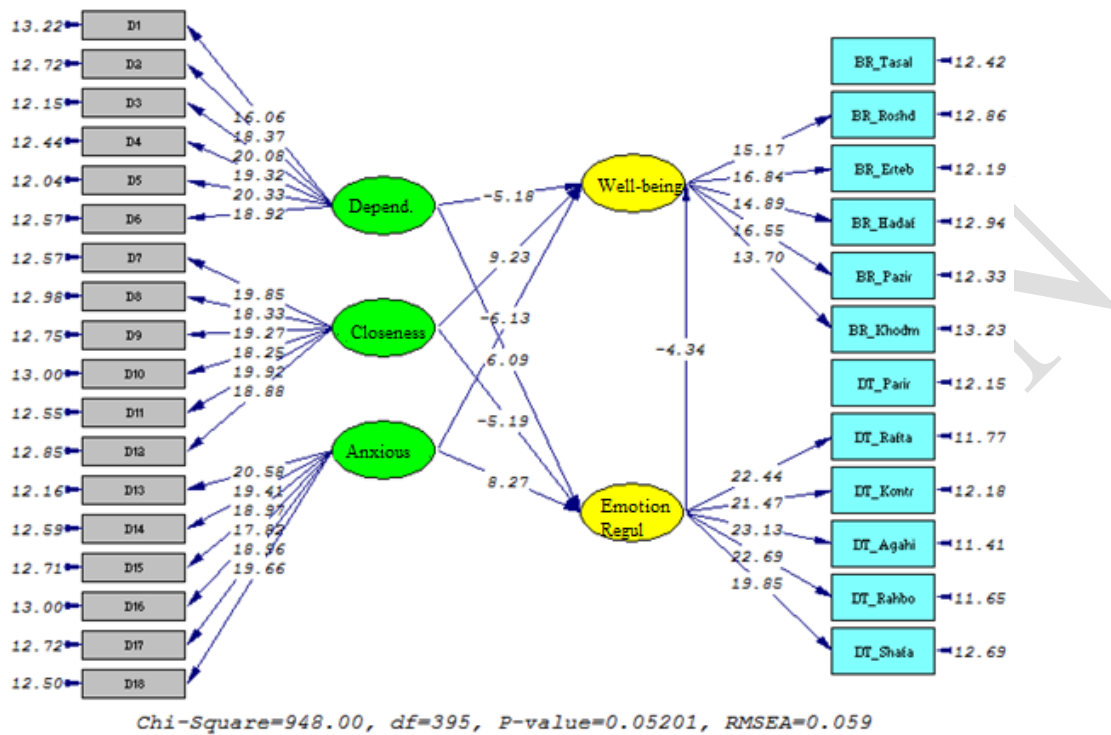


Table 4

Path Coefficients and t-Values

Pathway	Path Coefficient	t-value	Status
Dependence --> Emotion Regulation	0.32	6.09	Accepted
Closeness --> Emotion Regulation	-0.41	-5.19	Accepted
Anxiety --> Emotion Regulation	0.57	8.27	Accepted
Dependence --> Psychological Well-being	-0.40	-5.18	Accepted
Closeness --> Psychological Well-being	0.64	9.23	Accepted
Anxiety --> Psychological Well-being	-0.53	-6.13	Accepted
Emotion Regulation --> Psychological Well-being	-0.32	-4.34	Accepted

According to the results of the standardized path coefficients in Figure 1, all paths are significant. Therefore, the results of the indirect effects of the model predicting psychological well-being based on attachment style with the mediating role of emotion regulation are presented in Figure 1.

4. Discussion and Conclusion

Emotion regulation mediates between psychological well-being and attachment style, meaning that attachment style can indirectly enhance psychological well-being by reducing emotional dysregulation. This finding aligns with the results of other studies (Ivcevic & Eggers, 2021;

Karreman & Vingerhoets, 2012; Simpson & Campbell, 2013; Stevenson et al., 2019; Verzeletti et al., 2016). A study by Stevenson et al. (2019) evaluated the fundamental relationship between attachment criteria, emotion regulation, and mindfulness, providing a two-factor solution. The mediation analyses indicated that coping with failure was a significant mediator between resilient mental functioning and five scales of psychological well-being, as well as between distressed emotional functioning and all six scales (Stevenson et al., 2019).

These results suggest that emotional experiences in childhood affect the type and quality of relationships individuals form in adulthood. Thus, a set of attachment theories provides essential frameworks for examining the

quality of close relationships throughout a person's life. During adolescence, the hierarchy of attachment figures (Bowlby, 1980, 2008) gradually shifts as young people increasingly direct their attachment behaviors and concerns towards peers rather than parents. Although parents are typically never fully replaced as attachment figures, they slowly become what Weiss (1982) called "attachment figures in reserve." By the end of this period, in early adulthood, most people turn to a single romantic partner who becomes a primary attachment figure for many years, if not for life. During this transition, many adolescents alter their perceptions and feelings about themselves, experimenting with a range of exploratory behaviors that may be developmentally functional but nevertheless carry a significant risk of harm (Baumrind, 1987).

One of the significant challenges of social sciences and psychology in the 21st century is promoting the well-being of children and adolescents while emphasizing the preservation of their human rights. Given that well-being levels change throughout the life cycle and adolescents report lower levels of life satisfaction compared to other developmental stages, the experiences adolescents gain in interacting with others may lead to conscious and unconscious deficiencies in expressing their emotions. Adolescents, due to differences in attachment styles, show unique profiles in psychological well-being and specific symptoms and problems related to their emotions. Secure attachment is believed to lead to the development of adaptive methods for coping with negative emotions and a sense of self-efficacy, resulting in better psychological well-being. In contrast, insecure groups do not experience a desirable sense of security. Anxious-ambivalent adolescents report the highest levels of symptoms, weakest self-concepts, and highest levels of problematic or risky behaviors. Although avoidant adolescents show symptomatology nearly equal to their anxious counterparts, the two insecure groups differ significantly and predictably. Avoidant adolescents are significantly less hostile and depressed, perform better academically, have lower social competence, are less likely to have romantic relationships, and are less involved in delinquent behaviors and substance use compared to anxious adolescents. Indeed, avoidant adolescents did not differ from their secure peers in most risky or problematic behaviors and were significantly less likely than secure adolescents to have engaged in sexual activity or substance use. Thus, the three attachment types exhibited distinct adaptation patterns, theoretically related to differences in how these types experience, express, and regulate negative emotions.

Anxious infants, observed to strike out at their caregivers in strange situations, may display problematic behaviors as a means of venting their hostile emotions. Although both insecure groups experience high levels of negative emotions compared to secure individuals and appear motivated to engage in risky or problematic behaviors to express or cope with these negative feelings, only anxious adolescents possess the social skills necessary to involve peers in these behaviors. Consequently, anxious adolescents participate in problematic behaviors due to a specific set of emotional and social characteristics.

Bowlby (1969, 1982), in his attachment theory, focused on the infant's relationship with the attachment figure closest to them. If the child had a secure bond with the attachment figure, it predicted socialization, adherence to parental norms, effective emotion regulation, and psychological well-being. Conversely, if the bond between the child and the attachment figure was insecure, the likelihood of poor social relationships, poor emotional regulation, and psychological disorders increased (Bowlby, 2008).

5. Limitations & Suggestions

The limitations of the present study include: it being correlational in nature and having all the limitations associated with this research method. The sample size was small, and the study was conducted on a group of healthy individuals. Based on the results, it is suggested that officials and planners for adolescent students consider the findings of this study and similar research to design programs aimed at enhancing their psychological well-being. Additionally, therapists can enhance adolescents' psychological well-being through workshops that increase positive cognitive emotion regulation strategies and reduce negative ones. Given the limitations of this study, future research should include adolescents with psychological problems. Overall, to ensure the reliability of these findings, it is recommended that this study be repeated and its results compared with the present findings.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors equally contributed to this article.

References

- Baumrind, D. (1987). A developmental perspective on adolescent risk taking in contemporary America. *New directions for child and adolescent development*, 1987(37), 93-125. <https://doi.org/10.1002/cd.23219873706>
- Bowlby, J. (1980). By ethology out of psycho-analysis: An experiment in interbreeding. *Animal Behaviour*, 28(3), 649-656. [https://doi.org/10.1016/S0003-3472\(80\)80125-4](https://doi.org/10.1016/S0003-3472(80)80125-4)
- Bowlby, J. (2008). *A secure base: Parent-child attachment and healthy human development*. Basic books. https://scholar.google.com/scholar?q=related:NUu99Jux5FwJ:scholar.google.com/&scioq=A+secure+base:+Parent-child+attachment+and+healthy+human+development.&hl=en&as_sdt=0,5
- Cancino, N., González, C., Gallardo, I., & Estrada, C. (2016). EVALUATION OF A CONCEPTUAL QUALITY OF LIFE MODEL BUILT FROM DATA. *Acta colombiana de psicología*, 19(1), 310-321. http://www.scielo.org.co/scielo.php?pid=S0123-91552016000100013&script=sci_arttext
- Carneiro, L. S., Fernandes, H. M., & Vasconcelos-Raposo, J. (2019). Psychological well-being in adolescence. *Motricidade*, 15, 66-66. <https://search.proquest.com/openview/cb633f90661c6c8b938f691f2020bfa2/1?pq-origsite=gscholar&cbl=616555>
- Cassidy, J., & Shaver, P. R. (1999). *Handbook of attachment: Theory, research, and clinical applications*. Rough Guides. https://books.google.com/books?hl=en&lr=lang_en&id=haEfq-nKqjgC&oi=fnd&pg=PA3&dq=Handbook+of+attachment:+Theory,+research,+and+clinical+applications.&ots=Tn2N_hcomP&sig=Sq4oTvDYCuyMgTg8ZZAFXowID4s
- Chen, W., Zhang, D., Pan, Y., Hu, T., Liu, G., & Luo, S. (2017). Perceived social support and self-esteem as mediators of the relationship between parental attachment and life satisfaction among Chinese adolescents. *Personality and individual differences*, 108, 98-102. <https://doi.org/10.1016/j.paid.2016.12.009>
- Chopik, W. J., & Edelstein, R. S. (2014). Age Differences in Romantic Attachment Around the World. *Social Psychological and Personality Science*, 5(8), 892-900. <https://doi.org/10.1177/1948550614538460>
- Chopik, W. J., Edelstein, R. S., & Fraley, R. C. (2013). From the Cradle to the Grave: Age Differences in Attachment From Early Adulthood to Old Age. *Journal of personality*, 81(2), 171-183. <https://doi.org/10.1111/j.1467-6494.2012.00793.x>
- Emami Khotbesara, Z., Mahdian, H., & Bakhshpour, A. (2024). Comparing the Effectiveness of Academic Buoyancy and Psychological Capital Training on Academic Procrastination in Female High School Students [Research Article]. *Iranian Journal of Educational Sociology*, 7(3), 149-160. <https://doi.org/10.61838/kman.ijes.7.3.18>
- F., A. (2024). Self-Compassion and Psychological Wellbeing Among Patients With Hepatitis-C: Social Support as Moderator. *Pakistan Journal of Psychological Research*, 39(1), 173-194. <https://doi.org/10.33824/pjpr.2024.39.1.11>
- Freedman, V. A., Carr, D., Cornman, J. C., & Lucas, R. E. (2017). Aging, mobility impairments and subjective wellbeing. *Disability and Health Journal*, 10(4), 525-531. <https://doi.org/10.1016/j.dhjo.2017.03.011>
- Freire, C., Ferradás, M. d. M., Núñez, J. C., & Valle, A. (2017). Estructura factorial de las Escalas de Bienestar Psicológico de Ryff en estudiantes universitarios. *European journal of education and psychology*, 10(1), 1-8. <https://doi.org/10.1016/j.ejeps.2016.10.001>
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology and behavioral assessment*, 26, 41-54. <https://link.springer.com/article/10.1023/b:joba.0000007455.08539.94>
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39(3), 281-291. <https://doi.org/10.1017/S0048577201393198>
- Hudson, N. W., Fraley, R. C., Chopik, W. J., & Heffernan, M. E. (2015). Not all attachment relationships develop alike: Normative cross-sectional age trajectories in attachment to romantic partners, best friends, and parents. *Journal of research in personality*, 59, 44-55. <https://doi.org/10.1016/j.jrp.2015.10.001>
- Ivcevic, Z., & Eggers, C. (2021). Emotion Regulation Ability: Test Performance and Observer Reports in Predicting Relationship, Achievement and Well-Being Outcomes in Adolescents. *International journal of environmental research and public health*, 18(6).
- Karreman, A., & Vingerhoets, A. J. J. M. (2012). Attachment and well-being: The mediating role of emotion regulation and resilience. *Personality and individual differences*, 53(7), 821-826. <https://doi.org/10.1016/j.paid.2012.06.014>
- Latipun, L., Diny Rezki, A., & Nida, H. (2019, 2019/03). Relation Social Support and Psychological Well-Being among Schizophrenic Patients: Self-Care as Mediation variable? Proceedings of the 4th ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2018),
- Malekzadeh, I., Emadi, S. Z., & naghsh, z. (2024). The Effectiveness of Group Schema Therapy on Cognitive Emotion Regulation and Emotional Behavior Regulation in Mothers with Children with Learning Disabilities. *Psychology of Exceptional Individuals*, 14(53), 201-227. <https://doi.org/10.22054/jpe.2023.71499.2524>

- Marrero-Quevedo, R. J., Blanco-Hernández, P. J., & Hernández-Cabrera, J. A. (2019). Adult attachment and psychological well-being: The mediating role of personality. *Journal of Adult Development*, 26, 41-56. <https://link.springer.com/article/10.1007/s10804-018-9297-x>
- Molero, F., Shaver, P. R., Fernández, I., & Recio, P. (2017). Attachment insecurities, life satisfaction, and relationship satisfaction from a dyadic perspective: The role of positive and negative affect. *European Journal of Social Psychology*, 47(3), 337-347. <https://doi.org/10.1002/ejsp.2276>
- Nourialeagha, B., Ajilchi, B., & Kisely, S. (2020). The mediating role of gratitude in the relationship between attachment styles and psychological well-being. *Australasian Psychiatry*, 28(4), 426-430. <https://doi.org/10.1177/1039856220930672>
- Páez-Gallego, J., Gallardo-López, J. A., López-Noguero, F., & Rodrigo-Moriche, M. P. (2020). Analysis of the Relationship Between Psychological Well-Being and Decision Making in Adolescent Students [Original Research]. *Frontiers in psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01195>
- Park, M. J., Scott, J. T., Adams, S. H., Brindis, C. D., & Irwin, C. E., Jr. (2014). Adolescent and Young Adult Health in the United States in the Past Decade: Little Improvement and Young Adults Remain Worse Off Than Adolescents. *Journal of Adolescent Health*, 55(1), 3-16. <https://doi.org/10.1016/j.jadohealth.2014.04.003>
- Piñeiro-Cossio, J., Fernández-Martínez, A., Nuviala, A., & Pérez-Ordás, R. (2021). Psychological Wellbeing in Physical Education and School Sports: A Systematic Review. *International journal of environmental research and public health*, 18(3).
- Popescu, G. H. (2016). The effect of mandatory prolonged detention on the mental health of asylum seekers and refugees. *American Journal of Medical Research*, 3(2), 188-194. <https://www.cceol.com/search/article-detail?id=649237>
- Ryff, C. D. (2018). Well-Being With Soul: Science in Pursuit of Human Potential. *Perspectives on Psychological Science*, 13(2), 242-248. <https://doi.org/10.1177/1745691617699836>
- Ryff, C. D., & Singer, B. (2010). Psychological Well-Being: Meaning, Measurement, and Implications for Psychotherapy Research. *Psychotherapy and psychosomatics*, 65(1), 14-23. <https://doi.org/10.1159/000289026>
- Sarafraz, M. R., Chavoshi, H., & Alinaghi, M. (2019). Social networks and students: educational performance, psychological well-being, and mental health. *International Journal of School Health*, 6(3), 1-6. https://intjsh.sums.ac.ir/article_45587.html
- Sarfika, R., Zein, G. F., Andreni, R., Refnandes, R., & Saifudin, I. M. M. Y. (2024). Comparing Parenting Styles: Their Influence on Adolescent's Internet Addiction. *Healthcare in Low-resource Settings*, 12(1). <https://doi.org/10.4081/hls.2023.11932>
- Simpson, A., & Campbell, L. (2013). *The Oxford Handbook of Close Relationships*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195398694.001.0001>
- Stevenson, J. C., Millings, A., & Emerson, L.-M. (2019). Psychological well-being and coping: The predictive value of adult attachment, dispositional mindfulness, and emotion regulation. *Mindfulness*, 10(2), 256-271. <https://link.springer.com/article/10.1007/s12671-018-0970-8>
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development*, 25-52. <https://www.jstor.org/stable/1166137>
- Verzeletti, C., Zammuner, V. L., Galli, C., & Agnoli, S. (2016). Emotion regulation strategies and psychosocial well-being in adolescence. *Cogent Psychology*, 3(1), 1199294. <https://doi.org/10.1080/23311908.2016.1199294>
- Xu, S. (2024). The Impact of Educational Environment and Educational Strategies on Adolescents' Interpersonal Relationships. *Journal of Education Humanities and Social Sciences*, 29, 242-247. <https://doi.org/10.54097/cf971611>
- Zare Mazloom, M., Ardelt, M., Asadi, S., & Dehghani, F. (2024). Parents' Wisdom and Adolescents' Cognitive, Social, and Emotional Developmental Qualities. *Journal of Family Issues*. <https://doi.org/10.1177/0192513X231155650>