JAREN 2024;10(2):102-109
doi:10.55646/jaren.2024.71473

Examining of Secure Avoidant Anxious-Ambivalent Attachment Styles and Life Satisfaction among Adolescents Using Structural Equation Modeling

Ergenlerde Güvenli Kaçınan Kaygılı-Kararsız Bağlanma Tarzları ve Yaşam Doyumunun Yapısal Eşitlik Modellemesi Kullanılarak İncelenmesi

Sibel Arpacı, Türkan Kadiroğlu

ABSTRACT

***Aim**: To examine the relationship between secure, avoidant, anxious-ambivalent attachment styles and life satisfaction in adolescents.*
***Methods**: In the research, Structural Equation Modeling (SEM) was used. The research was carried out between February 2022 and April 2022 with students receiving education in a province located in the east region of Turkey. The schools were stratified according to the school type. One school from each school type was selected using the simple random sampling method. For the collection of the data a Descriptive Information Form, Three-Dimensional Attachment Styles Scale, and Life Satisfaction Scale were used (n=510).*
***Results**: The research found that the average age of the adolescents was 15.82 ± 1.24; 57.1% were female, 38.6% had five or more siblings, and 82.9% lived with their families. The study determined that the SEM was compatible. The model fit indices were χ2/Sd = 2.193, GFI = 0.92, AGFI = 0.91, IFI = 0.91, CFI = 0.91, and RMSEA = 0.04. In the model, a significant and positive relationship was found between the secure attachment style and life satisfaction (β2 =.564; p <.001). Secure, avoidant, and anxious–ambivalent attachment styles explained 36.6% (R2 = 0.366; p < 0.001) of life satisfaction.*
***Conclusion**: This study found that secure, avoidant, anxious-ambivalent attachment styles significantly predict life satisfaction. It is crucial to conduct national and international projects to support the secure attachment style in adolescents.*

***Keywords:** Adolescent, Life satisfaction, Nursing, Attachment*

ÖZ

***Amaç**: Ergenlerde güvenli, kaçınan, kaygılı-kararsız bağlanma stilleri ile yaşam doyumu arasındaki ilişkiyi incelemektir.*
***Yöntem**: Araştırmada Yapısal Eşitlik Modellemesi (YEM) kullanılmıştır. Çalışma, Şubat 2022 ile Nisan 2022 tarihleri arasında Türkiye'nin doğu bölgesinde yer alan bir ilde eğitim gören öğrencilerle gerçekleştirilmiştir. Okullar, okul türüne göre tabakalandırılmıştır. Her okul türünden bir okul basit tesadüfi örnekleme yöntemi kullanılarak seçilmiştir. Verilerin toplanmasında Tanımlayıcı Bilgi Formu, Üç Boyutlu Bağlanma Tarzları Ölçeği ve Yaşam Doyumu Ölçeği (n=510) kullanılmıştır.*
***Bulgular**: Araştırmada ergenlerin yaş ortalaması 15,82 ± 1,24, %57,1'i kadın, %38,6'sı beş ve daha fazla kardeşe sahip ve %82,9'u ailesiyle birlikte yaşadığı bulunmuştur. Çalışmada YEM'in uyumlu olduğu belirlenmiştir. Model uyum indeksleri χ2/Sd = 2,193, GFI = 0,92, AGFI = 0,91, IFI = 0,91, CFI = 0,91 ve RMSEA = 0,04'dür. Modelde güvenli bağlanma stili ile yaşam doyumu arasında anlamlı ve pozitif bir ilişki bulunmuştur (β2 =.564; p <.001). Güvenli, kaçınan ve kaygılı-kararsız bağlanma biçimleri yaşam doyumunun %36.6'sını (R2 = 0.366; p < 0.001) açıklamıştır.*
***Sonuç**: Bu çalışma, güvenli, kaçınank,a ygılı-kararsız bağlanma stillerinin yaşam doyumunu önemli ölçüde yordadığını bulmuştur. Ergenlerde güvenli bağlanma stilini desteklemek için ulusal ve uluslararası projelerin yürütülmesi büyük önem taşımaktadır.*

***Anahtar kelimeler:** Ergen, Yaşam doyumu, Hemşirelik, Bağlanma*

Received/Geliş: 23.03.2023
Accepted/Kabul: 30.11.2023
Published Online: 30.08.2024

Cite as: Arpacı S, Kadiroğlu T. Examining of secure avoidant anxious-ambivalent attachment styles and life satisfaction among adolescents using structural equation modeling. Jaren. 2024;10(2):102-109.

T. Kadiroğlu
Atatürk Üniversitesi, Hemşirelik Fakültesi, Hemşirelik Bölümü, Erzurum, Türkiye
turkankadiroglu@gmail.com
ORCID: 0000-0002-3703-7478

S. Arpacı 0000-0001-6821-1531
Atatürk Üniversitesi, Hemşirelik Fakültesi, Hemşirelik Bölümü, Erzurum, Türkiye

INTRODUCTION

Attachment styles become complex as a person's feelings, thoughts, behavior, and reactions change during adolescence. While the social environment is limited to the family during infancy, peer relationships gain importance in adolescence [1]. During adolescence, the adolescent individual tries to adapt to the individuals selected as role models and to the society in which they live socially, culturally, economically, etc. Furthermore, the need for independence increases as the adolescent experiences various physiological, psychological, and emotional changes and becomes aware that they are an individual on their own. Consequently, adolescents show attachment behavior toward new and other individuals [2].

Adolescence is the pre-adulthood period, which is shaped by the person's previous life experiences and where differentiations are seen in established relationships. Attachment behavior, which is mostly directed to parents during infancy, shifts to peer groups and other people with whom they are emotionally close during adolescence, and as a result, different types of attachment behaviors emerge. Adolescence, which is a period in which many physical, psychological and spiritual changes are experienced, the adolescent attaches importance to emotional relationships and it is seen that the attachment relationship he establishes has a permanent and serious effect [3,4,5].

Bowlby divides attachment into two: secure and insecure attachment. Individuals with secure attachment style have self-esteem and a positive view of others. They feel comfortable with intimacy and interdependence, establish a positive self-model, and handle stress through appropriate support or self-management. Conversely, individuals with insecure attachment style typically show "protest" (behaviors such as reacting to separation with withdrawal, not seeking help for stress, and not seeing others as well-intentioned). While secure attachment style is a protective factor against psychopathological problems, insecure attachment style is closely related to numerous problems of internalization, particularly during adolescence [4,5]. The avoidant and anxious–ambivalent attachment styles also emerged along with secure attachment style [6,7,8]. In avoidant attachment style, individuals are distrustful of others, reluctant to establish closeness, and have problems with social adaptation [7]. They display acts of distraction and disorientation, defensively diverting their attention from attachment-related feelings and thoughts [6]. In anxious–ambivalent attachment style, individuals consider themselves worthless, want to be in constant interaction with other individuals, but sometimes avoid interaction due to potential harm. Furthermore, studies indicate a close relationship between avoidant and anxious–ambivalent attachment styles and abuse and traumatic experiences [8].

On the other hand, life satisfaction refers to having positive ideas about one's own life. Life satisfaction, which is a subjective concept, varies according to the definition of an individual, since each individual's perspective on their own life is different [9]. Factors such as past life experiences, cultural values, restrictions in life, individual characteristics, and attachment styles can affect life satisfaction [10].

This research aimed to examine the relationship between secure, avoidant, anxious-ambivalent attachment styles and life satisfaction in adolescents using Structural Equation Modeling (SEM).

Hypothesis$_1$: There is a significant relationship between the level of secure attachment styles of adolescents and their life satisfaction.

Hypothesis$_2$: There is a significant relationship between the avoidant attachment styles of adolescents and their life satisfaction.

Hypothesis$_3$: There is a significant relationship between the anxious–ambivalent attachment styles of adolescents and their life satisfaction.

METHODS

Design

This research in the type of model analysis examined the relationship between attachment styles and life satisfaction in adolescents using SEM. SEM is a confirmatory model, it details possible relationships between variables and estimates measurement errors. SEM excels at testing complex models and can perform many analyzes at once [11]. The research was conducted between February 1, 2022 and April 30, 2022 with students studying in high schools affiliated to the Ministry of National Education of a province in the Eastern Anatolia Region of Turkey.

Samples and settings

The population of the research comprised 13,020 students between the ages of 14 and 18 studying at high schools affiliated to the Ministry of National Education of the province where the research was conducted in the academic year 2021–2022. The sample size of the study was determined through the sample calculation method with a known population. In this method, the formula n = [N.t2.p.q]/[d2(N−1)+t2.p.q] was used. The number of adolescents to be sampled was found to be at least 373. The high schools in which the research was conducted were stratified according to the school type. One high school from each school type was selected using the simple random sampling method. A total of four high schools were included in the study. Subsequently, adolescents studying at these high schools were stratified according to the grade level (9, 10, 11, and 12). One class from each class level was selected through the simple random sampling method. Consequently, the study achieved a sufficient sample size by reaching 510 adolescents in the study.

Inclusion criteria for the research: Those included in the study were adolescents between the ages of 14 and 18, without mental disabilities, who could speak Turkish, and who gave both their own and parents' consent to participate in the study.

Measures

In this study, data were collected using the Descriptive Information Form, Three-Dimensional Attachment Styles Scale (TDASS), and Life Satisfaction Scale (LSS).

Descriptive Information Form: This form was created by the researchers [12]. This form included the descriptive characteristics of adolescents—age, gender, number of siblings, place of residence, class level, year-end grade point average, smoking habits, sports habits, chronic disease status, and time spent in front of the screen. This form consists of ten questions.

Three-Dimensional Attachment Styles Scale: TDASS was developed by Erzen (2016) to determine adolescents' attachment styles. The scale includes three subdimensions, which are secure attachment (a total of five items, including items 4, 7, 10, 13, and 16), avoidant attachment (a total of seven items, including items 1, 3, 5, 9, 12, 15, and 18), and anxious–ambivalent attachment (a total of six items including 2, 6, 8, 11, 14, and 17). TDASS comprises 18 items in total. It is a 5-point Likert scale. Since the scale has two negative and one positive subdimension, there is no total score evaluation. Cronbach's alpha was 0.60 for the secure attachment subdimension, 0.71 for the anxious–ambivalent attachment subdimension, and 0.80 for the avoidant attachment subdimension [13].

Life Satisfaction Scale: Diener et al. developed the LSS in 1984. Yetim (1993) adapted the scale to the Turkish population. The LSS comprises five items in total. It is a 7-point Likert scale (1: I strongly disagree, 2: I disagree, 3: I partially disagree, 4: I am indecisive, 5: I partially agree, 6: I agree, and 7: I totally agree). The scale's total score was evaluated. With an increase in the score, life satisfaction also increases. The Cronbach's alpha of LSS was 0.84 [14].

Data collection

A separate program was determined for each high school to collect research data. Within the scope of the program, data were collected in the presence of the guidance counselor of the relevant class without disrupting the education-teaching processes of adolescents. The questionnaires were distributed to the adolescents who volunteered for the study after informing them about the study. Filling out the questionnaires took an average of 15–20 minutes for each adolescent.

Data analysis

The study used the SPSS 22.0 and AMOS V 24.0 statistical package programs for the statistical analysis of the data obtained from the study. The skewness and kurtosis coefficients were presented to determine the conformity of the data to the normal distribution, and the percentile and frequency distributions were presented to determine the descriptive properties. Maximum likelihood estimation was established to determine the relationships between variables. The following fit indices were included: adjusted chi-square statistic (x^2/Sd), fit index (GFI), adjusted fit index (AGFI), comparative fit index (CFI), root mean square errors of approximation (RMSEA), and incremental fit index (IFI). To ensure the validity of the measurement tools, the study conducted the confirmatory factor analysis (concordance indices) and convergent validity (AVE). To ensure the reliability of the measurement tools, Cronbach's alpha coefficient value was evaluated. The significance level (p) for the statistical tests was 0.05.

Ethic

The study obtained approval from the Ethics Committee of a university (Number: 2020-5/21, Date: 11.05.2021) and permission from the relevant Provincial Ministry of National Education (Number: E-78971437-20-40517379). Before the data collection of the study, the adolescents received information about the study and provided their written consent. The parents provided their written consent with a consent form that was delivered to them through the adolescents. The study excluded the adolescents whose parents did not provide consent to participate in the study.

RESULTS

The study found that the average age of the adolescents participating in the study was 15.82 ± 1.24; 57.1% were female, 38.6% had five or more siblings, 82.9% lived with their families, 7.1% had chronic diseases, 29.4% were 10th grade students, 42.5% of the adolescents' current year-end grade point average was in the range of 85–100 points. By examining individual habits of the adolescents, the study determined that 8.8% of them smoked, 56.9% did not play sports, and 22% had a screen time of more than three hours a day (Table 1). The mean scores of the adolescents participating in the study was determined as 17.94±3.73 for secure attachment, 17.91±6.28 for avoidant attachment, and 18.14±5.18 for anxious- ambivalent attachment and LSS 17.03±7.67.

The study established and tested the SEM to determine the relationship between secure, avoidant, anxious-ambivalent attachment styles, which are the independent variables of the study, and life satisfaction, which is the dependent variable. The study comprised a sample of 510. The skewness of the variables was −0.962–0.773; the kurtosis value was in the range of −1.337–0.000. The study found that there was −0.09–0.40 (<0.70) correlation for dependent and independent variables, a tolerance of 0.88–0.95 (>0.10), and a variance inflation factor (VIF) value of 1.05–1.12 (<10). There were no outliers in the Mahalanobis distance and p1/p2 values. The Cronbach's alpha coefficients of the measurement tools were between 0.60 and 0.84 (Table 2).

According to the LSS confirmatory factor analysis, the fit indices were x^2/Sd = 4.121, RMSEA = 0.07, CFI = 0.98, GFI =0.98, AGFI = 0.95, and IFI = 0.98.

Table 1. Distribution of Descriptive Characteristics of Adolescents (N=510)

Descriptive Characteristics	n	%
Age (year)*	15.82±1.24	
Gender		
Female	291	57.1
Male	219	42.9
Number of siblings		
1-2	59	11.6
3	135	26.5
4	119	23.3
5 or more	197	38.6
Living Place		
Family	423	82.9
Dorm	87	17.1
Chronic Disease Status		
Yes	36	7.1
No	474	92.9
School Level		
9	123	24.1
10	150	29.4
11	114	22.4
12	123	24.1
Year-End Grade Point		
0-69 points	78	15.3
70-84 points	215	42.2
85-100 points	217	42.5
Smoking Habit (Last month)		
Yes	45	8.8
No	465	91.2
Sports Habit (Last month)		
Yes	220	43.1
No	290	56.9
Screen Time (Daily)		
0-1 hour	133	26.1
1-2 hour	157	30.8
2-3 hour	108	21.2
More than 3 hours	112	22.0

**Mean±Standart Deviation*

The study determined that the standardized path coefficients of the LSS were statistically significantly distributed in the range of 0.55–0.81. According to the confirmatory factor analysis of the TDASS, the fit indices were x^2/Sd = 2.355, RMSEA = 0.05, CFI = 0.90, GFI = 0.94, AGFI =0.92, and IFI = 0.91. The standardized path coefficients of the TDASS subdimensions were statistically significant, in the range of 0.09–0.71. The mean variance values, which could explain the convergent validity of the measurement tools, were in the range of 0.21–0.51 (Table 2).

The study determined that the assumption analyses were provided and the measurement tools were valid and reliable. Furthermore, the study determined that the model created in line with the hypotheses was compatible, and the model fit indices were χ^2/Sd = 2.193, GFI = 0.92, AGFI = 0.91, IFI = 0.91, CFI = 0.91, and RMSEA = 0.04 (Table 2).

In the model, a significant and positive relationship was found between the secure attachment style and life satisfaction (β_2 = 0.564; p < 0.001). A significant and negative relationship was determined between the avoidant attachment style and life satisfaction (β_2 = −0.131; p = 0.05). A significant and negative correlation was found between the anxious–ambivalent attachment style and life satisfaction (β_2 = −0.294; p < 0.001). Secure, avoidant, and anxious–ambivalent attachment styles explained 36.6% (R^2 = 0.366; p < 0.001) of life satisfaction (Figure 1; Table 3).

Table 2. Fit Index Values of the Model

Fit Index	Research Model	Normal Value	Acceptable Value
χ^2 / sd	2.193	<2	<5
GFI	0.92	>0.95	>0.90
AGFI	0.91	>0.95	>0.90
IFI	0.91	>0.95	>0.90
CFI	0.91	>0.95	>0.90
RMSEA	0.04	<0.05	<0.08

GFI: Goodness of fit index, AGFI: Adjusted goodness of fit index, IFI: Incremental fit index, CFI: Comparative fit index, RMSEA: Root mean square error of approximation.

DISCUSSION

In this research, a complex research problem investigated systematically and comprehensively in a single process by modeling the relationships between dependent (life satisfaction) and independent variables (secure, avoidant, anxious-ambivalent attachment styles). Also, traditional regression analyzes ignore possible measurement errors in independent variables. In the current research, errors in the observed variables taken into account using SEM [11,15].

Presupposition tests should be appropriate to perform the SEM analysis. For the SEM, a sample size of more than 200 is considered a large sample size [15]. This study reached a large sample size with a sample number of 510. For the normal distribution of the variables, the required skewness value ought to be between −2 and +2, and the kurtosis value ought to be between −10 and +10 [11]. In this study, the skewness value was −0.962–0.773, and the kurtosis value was in the range of −1.337–0.000. Multiple normal distributions were provided for the variables.

Numerous parameters were examined for the multi collinearity between the variables. In the field of nursing, correlation, tolerance, and VIF are among the reviewed values [16,17,18]. In the study, there was a−0.09–0.40 (<0.70) correlation between dependent and independent variables, tolerance of 0.88–0.95 (>0.10), and a VIF value of 1.05–1.12 (<10). According to these value ranges, the results determined that there was no multicollinearity between the dependent and independent variables. For outliers, the study examined the Mahalanobis distance and p1/p2 values, and there were no outliers.

Table 3. The Relationship Between LSS and TDASS

Dependent variable	Independent variables	β0	β1	Standard error	Critical rate	R^2	p
LSS	Avoidant attachment	-0.186	-0.131	0.088	-2.112	0.366	0.035
	Anxious-Ambivalent attachment	-0.752	-0.294	0.189	-3.985		<0.001
	Secure attachment	0.126	0.564	0.19	0.939		<0.001

β0= Non-standardized regression coefficient. β1= Standardized regression coefficient.
R^2= Coefficient of determination

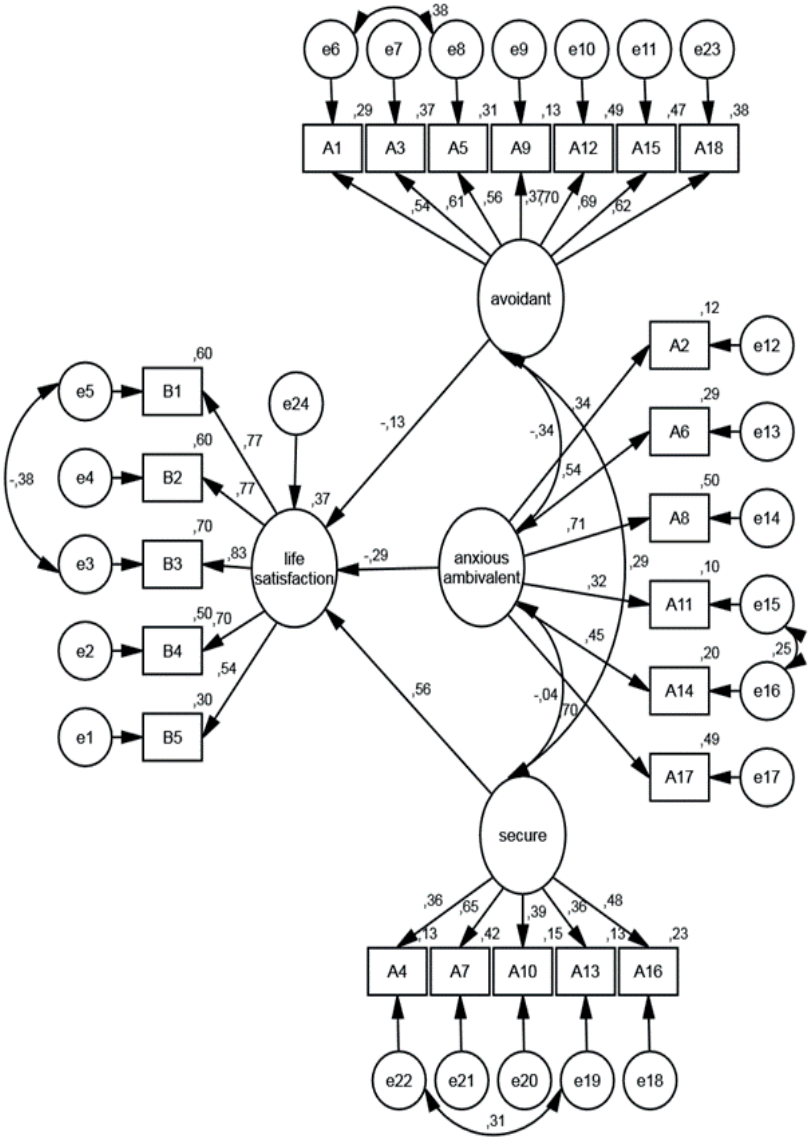

Figure 1. Structural Equation Model of the Research
A: Substances of TDASS, B: Substances of LSS

Before testing the SEM model, the Cronbach's alpha to evaluate the reliability of the variables was performed [15]. The tests of the measurement tools were 0.60–0.84. Upon evaluating the reliability coefficients of the variables, researchers found that the variables were above the limit values and the model variables were reliable.

In the TDASS confirmatory factor analysis, the fit indices were $x^2/Sd = 2.355$, GFI = 0.94, AGFI = 0.92, IFI = 0.91, CFI = 0.90, and RMSEA = 0.05, and the structure of the scale was confirmed [15]. The standardized path coefficients of the subdimensions of the scale were significant and in the range of 0.09–0.71.

In the LSS confirmatory factor analysis, the structure of the scale was confirmed as the fit indices were $x^2/Sd = 4.121$, GFI = 0.98, AGFI = 0.95, IFI = 0.98, CFI = 0.98, and RMSEA = 0.07 [15]. The standardized path coefficients of the scale were significant and distributed in the range of 0.55–0.81.

The AVE values of the scales were in the range of 0.21–0.51; while the convergent validity value of the LSS was above the limit value (AVE > 0.50), it was below the limit value for TDASS. According to the literature, one can accept low AVE values when there is construct reliability [19]. Accordingly, considering that the construct reliability of the measurement tools is provided by the Cronbach's alpha, and

construct validity is ensured by the confirmatory factor analysis, one can interpret that the convergent validity of the variables is ensured.

The results determined that the model created in line with the hypotheses was compatible and the model fit indices were $x^2/Sd = 2.193$, GFI = 0.92, AGFI =0.91, IFI= 0.91, CFI = 0.91, and RMSEA = 0.04 and acceptable [15].

In the model, a significant and positive relationship was found between the secure attachment style and life satisfaction, and the H_1 hypothesis was accepted. Secure attachment is an element that supports the positive progress and development of the adolescent [20]. Adolescents can both establish close relationships with others and maintain their independence, which is one of the important characteristics of adolescence [21]. A significant and negative relationship was found between the avoidant attachment style and life satisfaction, and the H_2 hypothesis was accepted. Adolescents with an avoidant attachment style feel others as rejecting and unreliable. At the same time, adolescent does not consider himself worthless, worthy of the love and support of others [21]. A significant and negative relationship was found between the anxious–ambivalent attachment style and life satisfaction, and the H_3 hypothesis was accepted. In the anxious–ambivalent attachment style, adolescents have a negative attitude towards self-love and being loved because there is a sense of worthlessness. They also obsessively view others as worthy of being loved [21]. Considering all these, adolescents' attachment styles form a mental model that directs their relationships, operates continuously and affects their life satisfaction considerably. Additionally, the study determined that secure, avoidant, and anxious–ambivalent attachment styles significantly explain 36.6% ($R^2 = 0.366$; $p < 0.001$) of life satisfaction. This level remarkably reveals the effect of attachment styles on life satisfaction.

CONCLUSIONS

The fit indices of the SEM model, which was established to determine the relationship between adolescents' secure, avoidant, and anxious–ambivalent attachment styles and life satisfaction, are at acceptable values. In the model, a significant and positive relationship was found between the secure attachment style and life satisfaction. The secure, avoidant, and anxious–ambivalent attachment styles remarkably predict (36.6%) of life satisfaction. It is crucial to conduct national and international projects to support the secure attachment style in adolescents. Nurses and nursing candidates should gain awareness of the importance of attachment styles during adolescence.

Author contribution
Study conception and design: SA, TK; data collection: SA, TK; analysis and interpretation of results: SA, TK; draft manuscript preparation: SA, TK. All authors reviewed the results and approved the final version of the manuscript.

Ethical approval
The study was approved by the Ataturk University Faculty of Nursing Ethics Committee (Protocol no. 2020-5/21/11.05.2021).

Funding
The authors declare that the study received no funding.

Conflict of interest
The authors declare that there is no conflict of interest.

Yazar katkısı
Araştırma fikri ve tasarımı: AA, BB ve CC; veri toplama: AA, BB ve CC; sonuçların analizi ve yorumlanması: AA ve BB; araştırma metnini hazırlama: AA, BB ve CC. Tüm yazarlar araştırma sonuçlarını gözden geçirdi ve araştırmanın son halini onayladı.

Etik kurul onayı
Bu araştırma için Atatürk Üniversitesi Hemşirelik Fakültesi Etik Kurulundan onay alınmıştır (Karar no: 2020-5/21/11.05.2021).

Finansal destek
Yazarlar araştırma için finansal bir destek almadıklarını beyan etmiştir.

Çıkar çatışması
Yazarlar herhangi bir çıkar çatışması olmadığını beyan etmiştir.

REFERENCES

1. Atkinson L. Reactive Attachment Disorder and attachment theory from infancy to adolescence: review, integration, and expansion. Attach Hum Dev. 2019; 21(2): 205-17. **[Crossref]**

2. Decarli A, Pierrehumbert B, Schulz A, Schaan VK, Vögele C. Disorganized attachment in adolescence: Emotional and physiological dysregulation during the Friends and Family Interview and a conflict interaction. Dev Psychopathol. 2022; 34(1): 431-45. **[Crossref]**
3. Barkale Şahin S. Hamarta E. Ergenlerin duygusal özerklik ve yaşam doyumlarının bağlanma stilleri açısından incelenmesi. Ahmet Keleşoğlu Eğitim Fakültesi Dergisi. 2022; 4(1): 146-57. **[Crossref]**
4. Garrett PM. Social work and the 'social doctor': Bowlby, social reproduction and 'common sense'. The British Journal of Social Work. 2023; 53(1): 587-603. **[Crossref]**
5. Kerns KA, Obeldobel CA, Kochendorfer LB, Gastelle M. Attachment security and character strengths in early adolescence. Journal of Child and Family Studies. 2023; 32: 2789-803. **[Crossref]**
6. Pallini S, Morelli M, Chirumbolo A, Baiocco R, Laghi F, Eisenberg N. Attachment and attention problems: A meta-analysis. Clin Psychol Rev. 2019; 74: 101772. **[Crossref]**
7. Spruit A, Goos L, Weenink N, et al. The relation between attachment and depression in children and adolescents: A multilevel meta-analysis. Clin Child Fam Psychol Rev. 2020; 23(1): 54-69. **[Crossref]**
8. Golshani S, Najafpour A, Hashemian SS, et al. Individuals with major depressive disorder report high scores of insecure-avoidant and ınsecure-anxious attachment styles, dissociative identity symptoms, and adult traumatic events. Healthcare. 2021; 9(9): 1169. **[Crossref]**
9. Hatano K, Hihara S, Nakama R, Tsuzuki M, Mizokami S, Sugimura K. Trajectories in sense of identity and relationship with life satisfaction during adolescence and young adulthood. Dev Psychol. 2022; 58(5): 977-89. **[Crossref]**
10. Waters TE, Yang R, Finet C, Verhees MW, Bosmans G. An empirical test of prototype and revisionist models of attachment stability and change from middle childhood to adolescence: A 6-year longitudinal study. Child Dev. 2022; 93(1): 225-36. **[Crossref]**
11. Collier JE. Applied structural equation modeling using AMOS: Basic to advanced techniques. New York: Routledge; 2020. 366 p.
12. Dehghanpouri H, Chavoshi SR, Lotfi Yamchi K. Investigating social factors affecting students' social vitality, mental health and life satisfaction from the perspective of experts (a qualitative study). Two Quarterly Journal of Contemporary Sociological Research. 2021; 10(18): 175-208. **[Crossref]**
13. Erzen E. Üç boyutlu bağlanma stilleri ölçeği. İnönü Üniversitesi Eğitim Fakültesi Dergisi. 2016; 17(3): 1-21.
14. Yetim Ü. Life satisfaction: A study based on the organization of personal projects. Social Indicators Research. 1993; 29(3): 277-89. **[Crossref]**
15. Kanadlı S. Sosyal bilimlerde R ile meta-analiz ve meta-analitik yapısal eşitlik modellemesi. 3rd ed. Ankara: Pegem Yayıncılık; 2021.
16. Mottaghi S, Poursheikhali H, Shameli L. Empathy, compassion fatigue, guilt and secondary traumatic stress in nurses. Nurs Ethics. 2020; 27(2): 494-504. **[Crossref]**
17. Lee JY, Lee MH. Structural model of retention intention of nurses in small- and medium-sized hospitals: Based on herzberg's motivation-hygiene theory. Healthcare. 2022; 10(3): 502. **[Crossref]**
18. Yoon S, Kim HY, Kim SR. A prediction model of health-related quality of life in young adult patients with stroke. J Clin Nurs. 2021; 30(13-14): 2023-2035. **[Crossref]**
19. Heckler CE, Hatcher L. A step-by-step approach to using the sas system for factor analysis and structural equation modeling. Technometrics. 1996; 38(3): 296-7. **[Crossref]**
20. Kerstis B, Åslund C, Sonnby K. More secure attachment to the father and the mother is associated with fewer depressive symptoms in adolescents. Ups J Med Sci. 2018; 123(1): 62-7. **[Crossref]**
21. Shaver PR, Hazan C, Bradshaw D. Love as attachment: the integration of three behavioral systems. In: Forslund T, Duschinsky R, editors. Attachment Theory and Research: A Reader. Hoboken, NJ: Wiley-Blackwell; 2021. p. 74-90.