

Secure Attachment and Perceived Social Support among High School Students: The Mediating Roles of Love and Social Intelligence

Lise Öğrencilerinde Güvenli Bağlanma ve Algılanan Sosyal Destek: Sevgi ve Sosyal Zekânın Aracı Rolü

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ABSTRACT: The perception of social support during adolescence is a primary interpersonal resource that is critical for effective stress management. Moreover, it has been associated with psychological well-being during this sensitive developmental period. Secure attachment, indicative of positive internal working models, has been found to be associated with elevated levels of perceived social support. Furthermore, it has been demonstrated to be closely linked to the character strengths of children and adolescents. The present study seeks to elucidate the interconnections between the perceived social support, secure attachment and love, and social intelligence character strengths in high school students. The rationale underpinning this study is that character strengths support both personal adjustment and functioning, as well as social bonds. This assertion is based on the aforementioned relationships. The aim of the study was to examine the mediating role of love and social intelligence in more detail. The study group consists of a total of 537 high school students. The results of the models indicate that adolescents who have a strong sense of connection with their parents and peers — as evidenced by high levels of character strengths such as love and social intelligence — perceive greater social support from their teachers.

Keywords: Perceived social support from teachers, secure attachment to parent, secure attachment to peers, love character strength, social intelligence character strength.

ÖZ: Algılanan sosyal destek ergenlik döneminde stresle başa çıkmada kritik öneme sahip birincil kişilerarası kaynaktır ve yaşamın bu hassas döneminde psikolojik iyi oluşla ilişkilidir. Olumlu içsel çalışma modellerinin bir yansıması olan güvenli bağlanma hem yüksek düzeyde algılanan sosyal desteğe sahip olmakla ilişkilidir hem de çocuk ve ergenlerin karakter güçleriyle yakından bağlantılıdır. Karakter güçleri ise hem kişisel uyumu ve işleyişi hem de sosyal bağları destekler. Bu ilişkilerden yola çıkarak, bu çalışmanın amacı lise öğrencilerinde algılanan sosyal destek, güvenli bağlanma ve sevgi ile sosyal zekâ karakter güçleri arasındaki ilişkileri ortaya koymaktır. Ayrıca, Model 1’de sevgi karakter gücünün ve Model 2’de sosyal zekâ karakter gücünün aracılık rolü araştırılmıştır. Bu bağlamda araştırmanın çalışma grubunu 537 lise öğrencisi oluşturmaktadır. Model 1 ve Model 2, ebeveynlerine ve akranlarına güvenli bir şekilde bağlanan ergenlerin öğretmenlerinden daha yüksek sosyal destek algılamalarında sevgi ve sosyal zekâ karakter güçlerinin de etkili olduğunu ortaya koymuştur.

Anahtar kelimeler: Arkadaşa güvenli bağlanma, ebeveyne güvenli bağlanma, öğretmenden algılanan sosyal destek, sevgi karakter gücü, sosyal zekâ karakter gücü.

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Throughout the human life cycle, particularly during adolescence, environmental factors such as perceived social support (PSS) maintain their significance in terms of mental health. A substantial body of research has been dedicated to the study of PSS, which is commonly defined as an individual's own judgment of satisfaction in interpersonal relationships. Research on young people has demonstrated a correlation between the levels of social support perceived by young people from the three main sources of support (family, friends, and teachers) (Helsen, Vollebergh & Meeus, 2000; Peker & Eroğlu, 2015; Tai, 2017; Yıldız & Eldeleklioğlu, 2024). Research has indicated that PSS in adolescence is associated with high self-esteem, increased school engagement and academic achievement (Araque, 2006), positive learning experiences and academic success (Deschamps, 2016), happiness and good health (Li & Liu, 2016). The extant literature examining the relationship between PSS and adolescent mental health suggests that there is an association between PSS and lower levels of depression (Ouyang et al., 2021), less non-suicidal self-harm and suicidal behaviours (Forster et al., 2020), and less emotional burnout (Romano et al., 2020). The disclosure of the factors elucidating PSS, which is associated with numerous salutary outcomes in the lives of adolescents, can furnish significant information for PSS studies to augment and support.

Secure Attachment and Perceived Social Support

The concept of PSS originates from the internal working models of self and others during early childhood, and is associated with secure attachment (SA) style (B. R. Sarason, Pierce, & I. G. Sarason, 1990). The study conducted by Sarason et al. (1991) demonstrated that both the perceived number of potential supporters and satisfaction with available support are associated with positive self-views. In their study on adolescents, Blain, Thompson & Whiffen (1993) discovered that individuals with an SA style who hold a positive view of themselves and a positive view of others exhibit higher levels of PSS.

Research conducted on a sample of adolescents exhibiting an SA style of attachment revealed that these individuals reported receiving elevated levels of social support from their family members and friends in comparison to those exhibiting other attachment styles (Blain et al., 1993; Kobak & Sceery, 1988). As Zimmermann (2004) asserted, adolescents exhibiting an SA style were characterised by the presence of emotionally intimate friendships and a detailed friendship concept, in contrast to those exhibiting a dismissive attachment style. Furthermore, the subjects reported feelings of integration within a larger social group, the presence of adequate emotion regulation skills in situations of conflict with close friends, and low levels of hostility and social anxiety (Zimmermann, 2004).

Research on securely attached adolescents has also indicated that they perceive higher levels of social support from their teachers in comparison to adolescents with other attachment styles (Cotterell, 1992; Tulviste & Rohner, 2010). In a study designed to examine these results in the literature on adolescents, the relationships between secure attachment to parents (SAParent) and peers (SAPeer) and PSS from family, friends, and teachers were examined. In light of the findings, it can be concluded that adolescents who have a secure attachment to their parents exhibited elevated levels of PSS from their family environment. In addition, it was determined that adolescents who

had SAPeer exhibited an increased perception of social support from friends and teachers (Yıldız & Eldeleklioğlu, 2024).

Love and Social Intelligence

Character strengths (CSs) have been demonstrated to facilitate both personal harmony and functioning, as well as social bonding (Booker & Perlin, 2020). Humanity, one of the six main virtues of the VIA Classification of Character Strengths and Virtues, encompasses interpersonal CSs, including the capacity to establish and sustain human relationships, such as cultivating friendships. CSs within the virtue of humanity, which are also termed humanity strengths, contribute significantly to the formation and strengthening of ties within the community (McGovern, 2012). The concept of CSs within humanity (love, kindness, and social intelligence) is typically highly correlated with the social aspect of life (Mo, 2019).

A study was conducted to examine the mediating effect of kindness CS on the relationship between SAParent and SAPeer and PSS from family, friends, and teachers in adolescents. This study was based on evidence from the literature on the impact of humanity strengths on positive social relationships. In light of the findings, it was determined that kindness fully mediated the association between SAParent and PSS from teachers, and partially mediated the association between SAPeer and PSS from teachers (Yıldız & Eldeleklioğlu, 2024). It is hypothesised that love and social intelligence, which are among the strengths exhibited by humans, such as kindness, may mediate the link between secure attachment and PSS in adolescents. A paucity of studies in the literature examines the link between the CSs of love and social intelligence on both secure attachment and PSS.

The notion of love, intimacy, and other enduring relationships has been linked to kinship ties, characterised by reciprocal exchanges and the distribution of resources (Macdonald, Patch, & Figueredo, 2016). A body of research has previously indicated an association between love CS in adolescents and both PSS and the perception of family support (Noronha, da Silva, & Rueda, 2018; Noronha, da Silva, & Dametto, 2019). A study on adults related to love CS and attachment reported that avoidant attachment style negatively predicted love CS (Lavy & Littman-Ovadia, 2011). The findings of a further study on adults indicate an association between insecure attachment and love (see Gilbert, McEwan, Matos & Rivis et al., 2011).

Social intelligence is defined as the ability to utilise social skills to fulfil interpersonal tasks and/or to comprehend oneself in relation to others (Kaukiainen et al., 1999). The results of a study examining the link between social intelligence and social support networks among young people indicate the presence of positive relationships between emotional and social intelligence and social support systems (Iruloh & Ukaegbu, 2015). A study was conducted to examine the relationship between social intelligence and attachment among a sample of young adults. The study found that higher scores on social intelligence were positively related to secure attachment, supporting emotional skills and emotional regulation later in life (Anwer et al., 2017). Furthermore, the findings of multiple studies on adolescents indicate that a secure attachment-related mood during early adolescence is associated with elevated levels of peer acceptance, emotion regulation, and autonomy, as well as enhanced social competence over time (Allen et al., 2000). According to Engels et al. (2001),

adolescents who report higher levels of parental attachment are more likely to demonstrate social competencies and are less likely to feel anxious about performing these competencies.

The Present Study

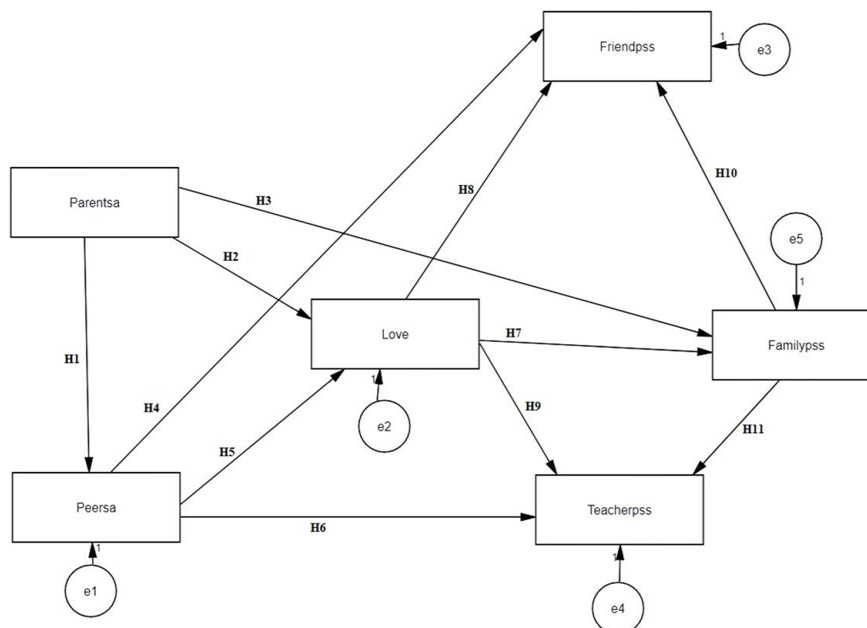
A review of the extant literature was conducted to examine the relationship between secure attachment, PSS, and CSs. In the extant literature on the prediction of CSs with social support, a study reported that older people's CSs have a direct impact on their social support (Noriega et al., 2022). However, the present study is unable to provide sufficient information about adolescence, a critical period in the development of both CSs and PSS. A study was conducted that demonstrated a correlation between secure attachment and CSs in adolescents. However, the study did not examine attachment to parents and peers in separate ways (Kerns et al., 2022). A review of the extant literature on the CSs of Turkish adolescents reveals a body of research indicating that love CS predicts family communication (Kabakçı & Stockton, 2022), closeness/compassion CS predicts SAPeer and subjective well-being in school (Ekşi et al., 2020), and kindness CS predicts PSS from teachers (Yıldız & Eldeleklioglu, 2024). A thorough examination of the extant literature reveals a paucity of research addressing the relationship between secure attachment, perceived social support (PSS), and social intelligence (CS). Furthermore, the interplay between love CS and PSS remains uncharted territory. The present study seeks to elucidate the inter-relationships between PSS, secure attachment, and love and social intelligence CSs among high school students.

Hypotheses

The proposed model, which is based on the hypothetical structural model 1, is presented in Figure 1.

Figure 1

Model 1: Love Mediates The Relation Between Secure Attachment to Parents And Peers And Perceived Social Support Received from Family, Friends And Teachers



Note. Familypss= Perceived social support received from the family, Friendpss= Perceived social support received from friends, Love= Love character strength , Parentsa=Secure attachment with parent, Peersa= Secure attachment with peers, Teacherpss= Perceived social support received from teachers.

Table 1 presents hypotheses in theoretical model 1.

Table 1

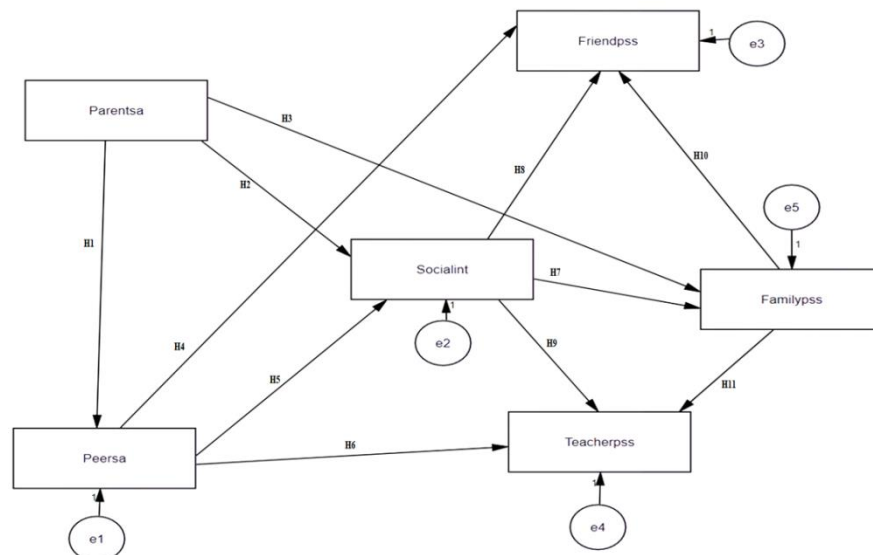
Model 1 Hypothesis

Hypothesis Nr.	Hypothesis
1	SAParent positively and significantly predicts SAPeer in high school students.
2	High school students' SAParent positively and significantly predicts love CS.
3	SAParent of high school students positively and significantly predicts the level of Familypss.
4	High school students' SAPeer positively and significantly predicts the level of Friendpss.
5	High school students' SAPeer positively and significantly predicts love CS.
6	High school students' SAPeer positively and significantly predicts the level of Teacherpss.
7	Love CS of high school students positively and significantly predicts the level of Familypss.
8	High school students' love CS positively and significantly predicts the level of Friendpss.
9	Love CS of high school students positively and significantly predicts the level of Teacherpss.
10	The level of Familypss positively and significantly predicts the level of Friendpss by high school students.
11	The level of Familypss by high school students positively and significantly predicts the level of Teacherpss.
12a	High school students' love CS plays a mediating role in the relationship between SAParent and Familypss.
12b	High school students' love CS plays a mediating role in the relationship between SAPeer and Friendpss.
12c	High school students' love CS plays a mediating role in the relationship SAPeer and Teacherpss.

The proposed model, which is based on the hypothetical structural model 2, is presented in Figure 2.

Figure 2

Model 2: Social Intelligence Mediates The Relation Between Secure Attachment to Parents And Peers And Perceived Social Support received from Family, Friends And Teachers



Note. Socialint= Social intelligence character strength

Table 2 presents the hypotheses in theoretical model 2:

Table 2

Model 2 Hypothesis

Hypothesis Nr.	Hypothesis
1	SAParent positively and significantly predicts SAPeer in high school students.
2	High school students' SAParent positively and significantly predicts social intelligence CS.
3	SAParent of high school students positively and significantly predicts the level of Familypss.
4	High school students' SAPeer positively and significantly predicts the level of Friendpss.
5	High school students' SAPeer positively and significantly predicts social intelligence CS.
6	High school students' SAPeer positively and significantly predicts the level of Teacherpss.
7	Social intelligence C of high school students positively and significantly predicts the level of Familypss.
8	High school students' social intelligence CS positively and significantly predicts the level of Friendpss.
9	Social intelligence CS of high school students positively and significantly predicts the level of Teacherpss.
10	The level of Familypss positively and significantly predicts the level of Friendpss by high school students.
11	The level of Familypss by high school students positively and significantly predicts the

	level of Teacherpss.
12a	High school students' social intelligence CS plays a mediating role in the relationship between SAParent and Familypss.
12b	High school students' social intelligenceCS plays a mediating role in the relationship between SAPeer and Friendpss.
12c	High school students' social intelligenceCS plays a mediating role in the relationship between Friendpss and Teacherpss.

Method

The present study seeks to examine the relationship between secure attachment and love and social intelligence CSs in order to ascertain their role in explaining the levels of perceived social support experienced by high school students (Fraenkel, Wallen, & Hyun, 2023).

Participants

The extant literature does not provide a simple rule for determining the sample size required for structural equation modeling. Moreover, power analyses conducted to determine the optimal sample size for structural equation modeling led researchers to recognise that they frequently operate with smaller samples in order to achieve sufficient statistical power (Loehlin & Beaujean, 2017). In order to address this confusion, researchers propose a sample size-to-parameter ratio of 20:1 for models where all results are continuous and normally distributed, and estimation methods are maximum likelihood (Kline, 2023). In light of the 17 parameters examined in this study, the minimum recommended sample size is 340. The study sample comprised 676 high school students from public high schools in Turkey. The data were obtained from students in grades 9, 10, 11 and 12 of these high schools (mean age = 15.72, standard deviation = 0.81). The administration of measurement tools was conducted online, a decision that was made in response to the global pandemic caused by the novel coronavirus. The final participant group comprised 134 male (25%) and 403 female (75%) students.

Data Collection Procedure

A total of ten high schools situated in the city centre were selected for inclusion in the study, with the selection process being random. The data was collected during the 2021-2022 academic year. The school principal and school psychological counsellors were also apprised of the fact that the three scales would be administered simultaneously and online. The application link for the scale was disseminated by school principals or school psychological counsellors via the Educational Informatics Network (EBA) and social communication channels. The online form was meticulously designed to facilitate the participation of students who had obtained their parents' consent. These students were instructed to access the scales by selecting the "I would like to volunteer" option. The participants did not receive any form of incentive for their participation in the study.

Measures

Demographic Information Form

This form, developed by the researchers, includes items about the age, gender, and grade of the students participating in this study.

Perceived Social Support Scale-Revised (PSSS-R)

In 1997, Yıldırım developed this scale for the purpose of evaluating individuals' perception of the social support they receive from their immediate social environment. Subsequently, in 2004, Yıldırım undertook a revision of the scale (PSSS-R). The scale, which comprises 50 items, is scored using a response format based on three-point Likert scales. The scale comprises three subscales: family support, friend support and teacher support. The scale comprises twenty items that measure family support, thirteen items that measure friend support, and seventeen items that measure teacher support. It is notable that each subscale of the scale contains one reverse-scored item. The scale's internal consistency coefficients were calculated as .91 for the total scale, .83 for family, .77 for friends, and .83 for teachers support (Yıldırım, 2004). In the present study, the internal consistency coefficients of the scale were calculated to be .90 for FamilyPSS, .81 for FriendPSS, and .93 for TeacherPSS.

Inventory of Parent and Peer Attachment-Revised (IPPA-R)

In 1987, Armsden and Greenberg developed an attachment inventory comprising 53 items designed for use in middle and late adolescence. The items are scored using a three-point Likert scale. The inventory was adapted to Turkish culture by Yavuz, Yüksel, and Göksan Yavuz (2018) using adolescents aged 15-17 years. The questionnaire comprises twenty-eight statements related to parental attachment and twenty-five related to peer attachment. Thirteen statements from the parent attachment part and seven statements from the peer attachment part of the inventory were reverse-coded. In terms of the inventory's internal consistency coefficients, it was determined that the Cronbach alpha coefficients of the scales assessing attachment to parents and attachment to peers were .89 (Yavuz et al., 2018). The inventory's internal consistency coefficients for this study were .93 regarding parental attachment and .69 regarding peer attachment. It is evident that an increase in the total scores is indicative of an enhanced level of secure attachment.

Values in Action Inventory of Character Strengths for Youth (VIA-Youth)

The inventory was devised by Peterson and Seligman (2004) with the objective of identifying six virtues and twenty-four CSs, as established by the VIA classification, in individuals between the ages of 10 and 17. The inventory in question comprises one hundred ninety-seven individual items. The items are scored using a five-point Likert scale. In 2013, Kabakçı adapted the inventory to Turkish culture with high school students. Each CS subscale can be employed as a stand-alone measure within the inventory, which comprises a total of fifty-four reverse-scored items (Kabakçı, 2013). The inventory demonstrated internal consistency coefficients exceeding .70, with the exception of curiosity (.64), modesty (.67), and judgment (.68) (Kabakçı, Ergene, & Doğan, 2019). In the present study, the sub-dimensions of the inventory employed for the assessment of the CSs of love and social intelligence were utilised exclusively. The

love CS component comprises nine items, while the social intelligence CS component consists of eight items. It has been determined that three items in the love CS part and two items in the social intelligence CS part of the inventory are reverse-coded. The study found internal consistency coefficients of .74 for love and .62 for social intelligence.

Data Analysis

Prior to the execution of the statistical analyses, it was imperative to ascertain whether any participants had completed the 676 application forms incorrectly or incompletely. Following the identification of 90 participants who had incorrectly completed the measurement tools, the decision was taken to exclude their data from the data pool. Subsequently, the data set was analysed in terms of the prerequisites of path analysis. The findings of this analysis indicated that the sample under scrutiny demonstrated a normal distribution. Furthermore, an investigation of the data in terms of extreme values revealed the necessity for the removal of 40 data points from the data set. Given that the data satisfied the assumption of multivariate normal distribution, a series of path model tests were conducted using the maximum likelihood (ML) estimation method with the statistical software. The study utilised a total of 5,000 bootstrap samples, with each sample possessing a 95% confidence interval. As stated by Hayes (2009), the presence of a non-zero confidence interval for an indirect effect indicates the presence of a statistically significant mediating effect. Subsequently, the mediating effects of the CSs of love and social intelligence were evaluated using a bootstrapping method (5000 bootstrapped samples with 95% bootstrap confidence intervals [CI]). In accordance with the classification proposed by Kline (2005), values with a standardized path coefficient below .10 are designated as having a small effect size, those around .30 are designated as having a medium effect size, and those above .50 are designated as having a large effect size (Cohen, 1988). In the present study, this classification was considered during the interpretation of the effect sizes.

Ethical Procedures

The study was granted approval on 2nd October 2020 by the Social and Human Sciences Research and Publication Ethics Committee of Bursa Uludağ University, conducted under the auspices of the 2020/07 number. Following a thorough evaluation of the proposal, the Bursa Provincial Directorate of National Education formally sanctioned the project on 5th March 2021.

Results

Descriptive Statistics

The means, standard deviations, and bivariate correlations between the principal study constructs were calculated. The findings are set forth in Table 3.

Table 3

Descriptive Statistics and Correlations among Principal Study Constructs

Variables	1.	2.	3.	4.	5.	6.	7.	<i>M</i>	<i>SD</i>	N
1. Love	1	.45**	.64**	.45**	.53**	.43**	.30**	3.66	.68	537
2. Socialint		1	.32**	.24**	.27**	.19**	.19**	3.84	.52	537
3. Parentsa			1	.34**	.82**	.23**	.30**	68.66	10.79	537
4. Peersa				1	.33**	.71**	.23**	63.32	4.43	537
5. Familypss					1	.28**	.33**	53.83	6.09	537
6. Friendpss						1	.18**	36.63	2.98	537
7. Teacherpss							1	41.31	7.64	537

Note **p < .01

As demonstrated in Table 3, both love and social intelligence are found to have statistically significant relationships with SAParent and SAPEer, as well as PSS from family, friends, and teachers.

Path Model

The path analysis was used first to test the first eleven hypotheses of Model 1. Analyses were repeated three times to achieve the final model. As a result of removing non-significant paths from the model, the fit indices were within the acceptable fit index values: RMSEA = .043, χ^2/df = 2.01, CFI = .995, GFI = .991, NFI=.990, TLI = .990, SRMR = .023. Except for the predictive power of PSS from the family on PSS from teachers, SAParent on PSS from the family, and SAPEer on PSS from friends, no predictive coefficients showed an increase. Figure 3 illustrates the final model (Model 1).

Figure 3
Final Model 1

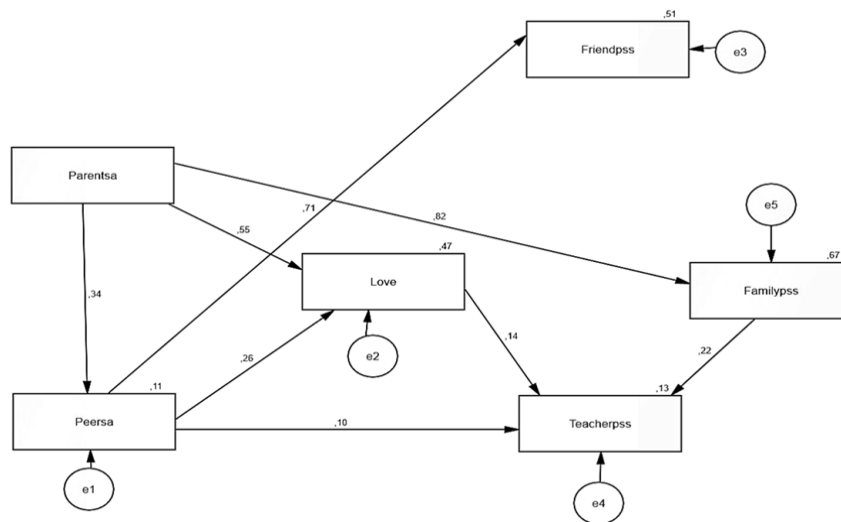


Table 4 illustrates the significance of the path coefficients identified between the variables.

Table 4

Unstandardised And Standardised Regression Coefficients Of Final Model 1 Parameters And Hypothesis Tests

Hypothesis	Pathways	RW	SE	SRW
H1	Parentsa → Peersa	.14*	.02	.34
H2	Parentsa → Love	.04*	.00	.55
H3	Parentsa → Familypss	.46*	.01	.82
H4	Peersa → Friendpss	.48*	.02	.71
H5	Peersa → Love	.04*	.01	.26
H6	Peersa → Teacherpss	.16*	.01	.10
H9	Love → Teacherpss	1.54*	.57	.14
H11	Familypss → Teacherpss	.28*	.01	.22

Note *p < .05

The results of the analysis provide substantiated evidence that validates the following hypotheses, as outlined in Table 4: 1., 2., 3., 4., 5., 6., 9., and 11.

Then, the method of path analysis was used to test the first eleven hypotheses of Model 2. Analyses were repeated three times to achieve the final model. As a result of removing non-significant paths from the model, the fit indices were within the acceptable fit index values: RMSEA = .043, χ^2/df = 2.08, CFI = .994, GFI = .991, NFI = .988, TLI = .986, SRMR = .024. With the exception of the predictive power of SAPeer on PSS from friends, no predictive coefficient demonstrated an increase.

Figure 4 illustrates the final model (Model 2).

Figure 4

Final Model 2

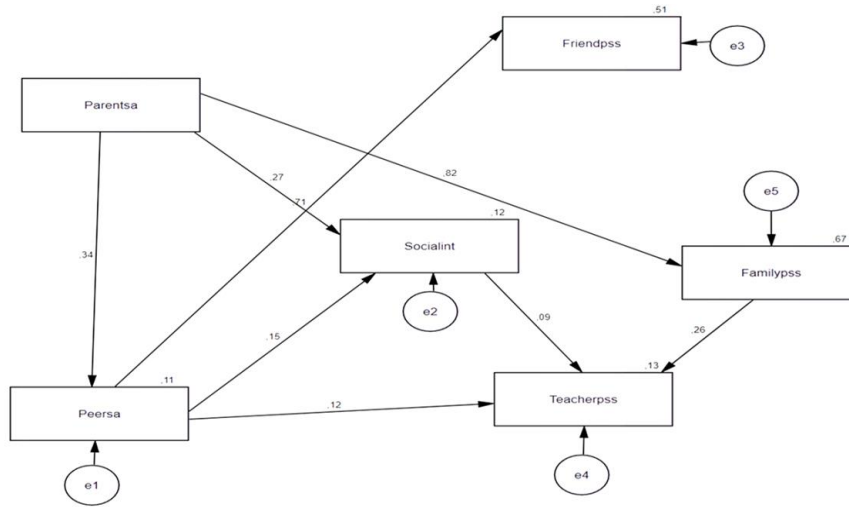


Table 5 illustrates the significance of the path coefficients identified between the variables.

Table 5

Unstandardised And Standardised Regression Coefficients of Final Model 2 Parameters And Hypothesis Tests

Hypothesis	Pathways →	RW	SE	SRW
H1	Parentsa → Peersa	.14*	.02	.34
H2	Parentsa → Socialint	.01*	.00	.27
H3	Parentsa → Familypss	.46*	.01	.82
H4	Peersa → Friendpss	.48*	.02	.71
H5	Peersa → Socialint	.02*	.01	.15
H6	Peersa → Teacherpss	.21*	.07	.12
H9	Socialint → Teacherpss	1.39*	.63	.10
H11	Familypss → Teacherpss	.33*	.05	.26

Note *p < .05

As evidenced in Table 5, the hypotheses posited in Model 2, namely 1., 2., 3., 4., 5., 6., 9., and 11., have been validated.

Mediation Tests

According to the ultimate Model 1, love serves as a partial mediator. Table 6 provides an overview of the total, direct, and indirect effects between the variables.

Table 6

Direct, Indirect and Total Effects in Model 1

Estimated Variables	Predictive variables	Direct SRW	95 % CI		Indirect SRW	95 % CI		Total SRW	95 % CI	
			Lower Bound	Upper Bound		Lower Bound	Upper Bound		Lower Bound	Upper Bound
Peersa ($R^2=.11$)	Parentsa	.34**	.27	.41	-	-	-	.34**	.27	.41
Familypss ($R^2=.67$)	Parentsa	.82*	.78	.85	-	-	-	.82*	.78	.85
Love ($R^2=.47$)	Parentsa	.55***	.48	.60	.09***	.19	.29	.64***	.58	.68
	Peersa	.26***	.20	.33	-	-	-	.26***	.20	.33
Friendpss ($R^2=.51$)	Parentsa	-	-	-	.24***	.19	.29	.24***	.19	.29
	Peersa	.71**	.67	.77	-	-	-	.71**	.67	.77
Teacherpss ($R^2=.13$)	Parentsa	-	-	-	.30**	.23	.37	.30**	.23	.37
	Peersa	.01***	.01	.19	.04***	.01	.07	.13**	.05	.22
	Familypss	.22**	.12	.32	-	-	-	.22**	.12	.32
	Love	.14***	.05	.24	-	-	-	.14***	.05	.24

Note * $p < .001$ ** $p < .01$ *** $p < .05$, 5000 bootstrap.

The results indicate that SAParent and SAPeer, which predict love CS, explain 47% of the variance in this variable. Among the variables examined, only SAParent was found to predict love CS in both direct and indirect ways. Evaluating the variables in terms of their total predictive power, it can be demonstrated that both variables exhibit statistically significant predictive power. Examining the total predictive power of the variables on love CS in terms of effect sizes, it can be seen that SAParent ($\beta = .64$, $p < .05$) has a large effect, whereas SAPeer has a small effect ($\beta = .26$, $p < .05$).

Table 6 indicates that SAParent and Peersa, Familypss, and love CS explain 13% of the variance in Teacherpss. Among the aforementioned variables, only SAPeer was found to predict the level of Teacherpss directly or indirectly. The total predictive powers of all variables were found to be statistically significant. Examining the effect sizes of the total predictive power of these variables on the level of Teacherpss, and it was found that SAParent ($\beta = .30$, $p < .01$) had a moderate effect, whereas the level of Familypss ($\beta = .22$, $p < .01$), SAPeer ($\beta = .13$, $p < .01$) and love CS ($\beta = .14$, $p < .05$) had a small effect.

The ultimate Model 2 indicates that social intelligence CS serves as a partial mediator. Table 7 presents all the effects between the variables, including the total effect, direct effect, and indirect effect.

Table 7

Direct, Indirect and Total Effects in Model 2

Estimated Variables	Predictive variables	Direct SRW	95 % CI		Indirect SRW	95 % CI		Total SRW	95 % CI	
			Lower Bound	Upper Bound		Lower Bound	Upper Bound		Lower Bound	Upper Bound
Peersa ($R^2=.11$)	Parentsas	.34**	.27	.41	-	-	-	.34**	.27	.41
Familypss ($R^2=.67$)	Parentsas	.82***	.78	.85	-	-	-	.82***	.78	.85
Socialint ($R^2=.12$)	Parentsas	.27**	.18	.35	.05**	.02	.09	.32**	.24	.40
	Peersas	.15***	.06	.23	-	-	-	.15***	.06	.23
Friendpss ($R^2=.51$)	Parentsas	-	-	-	.24***	.19	.29	.24***	.19	.29
	Peersas	.71**	.67	.77	-	-	-	.71**	.67	.77
Teacherpss ($R^2=.13$)	Parentsas	-	-	-	.28**	.21	.35	.28**	.21	.35
	Peersas	.12**	.04	.21	.01***	.00	.04	.14**	.05	.23
	Familypss	.26**	.17	.35	-	-	-	.26**	.17	.35
	Socialint	0.10***	0.02	0.20	-	-	-	0.10***	0.02	0.20

Note * $p < .001$ ** $p < .01$ *** $p < .05$, 5000 bootstrap.

Table 7 shows that SAParent and SAPeer, which predict social intelligence CS, explain 12% of the variance in this variable. Of the variables considered, only SAParent was found to predict social intelligence CS both directly and indirectly. Evaluating the variables in terms of their overall predictive power, it can be shown that both variables have statistically significant predictive power. When examining the overall predictive power of the variables on social intelligence CS in terms of effect sizes, it can be observed that SAParent ($\beta = .32$, $p < .01$) has a medium effect, whereas SAPeer ($\beta = .15$, $p < .05$) has a small effect.

It can be seen that SAParent and SAPeer, the level of Familypss, and social intelligence CS, which predict the level of Teacherpss, explain 13% of the variance in this variable. Among the variables considered, only SAPeer was found to predict the level of Teacherpss, both directly and indirectly. When evaluating the variables in terms of their overall predictive power, it can be shown that the predictive powers of all variables were statistically significant. The analysis of the total predictive power of the variables on the level of Teacherpss, as indicated by the effect sizes, shows that SAParent ($\beta = .28$, $p < .01$), the level of Familypss ($\beta = .26$, $p < .01$) and SAPeer ($\beta =$

.14, $p < .01$) have a small effect on the outcome in question. Moreover, social intelligence CS has a small effect ($\beta = .10$, $p < .05$).

Discussion

The present study aims to examine the relationships between SAParent and SAPeer, and Familypss, Friendpss, and Teacherpss. The present study has been meticulously designed to examine the mediating effects of love and social intelligence on CSs. The findings pertaining to the initial research question suggest that high school students' SAParent exerts a substantial influence on their love and social intelligence CSs, both directly and indirectly through their SAPeer. The findings of the second research question analysis indicate that high school students' level of SAPeer directly predicts love and social intelligence CSs. The findings of the third research question's analyses demonstrate that the critical factors of love and social intelligence among high school students predicted the Teacherpss at a notable level.

A review of the extant literature on the relationship between secure attachment and love CS reveals the existence of studies reporting results similar to those of the present study. Obeldone and Kerns (2020) discovered that secure attachment was a significant predictor of positive emotions, including love, in their study with pre-adolescents. This finding aligns with the results of the current study, thereby providing support for the current body of research in this area. Furthermore, the research conducted by Liu and Wang (2021) revealed that parental emotional warmth, attachment to parents, and attachment to peers are effective in the development of CS. Research results pertaining to the development of positive emotions and empathy also revealed findings consistent with this study. A study by Laible (2007) found that adolescents with secure attachment relationships with their parents and peers reported negative emotions less frequently and positive emotions more frequently on a daily basis. Furthermore, adolescents who reported secure attachment indicated a reduced tendency to express negative emotions and exhibited less aggressive behaviour compared to their peers with insecure attachment. The author further emphasised that peer attachment exhibits stronger direct relationships with all aspects of socio-emotional development than parental attachment. This finding is consistent with the present study, which reports that secure attachment with peers serves as a mediator (Laible, 2007). As posited by Sanchez-Jiménez et al. (2008), love can be conceptualised as a manifestation of the need for interpersonal proximity and emotional attachment. Positive internal working models acquired through secure attachment from responsive caregivers facilitate adolescents' evaluation of both themselves and the people around them as lovable and important, thereby laying the foundation for love CS. Furthermore, it has been demonstrated that adolescents who acquire positive internal working models from SAParent and have these models confirmed in their peer group also develop SAPeer. Positive internal working models, reinforced by secure attachment to both sources, may contribute to the more pronounced emergence of love CS in adolescents.

The extant literature supporting the present study's result on social intelligence CS indicates that secure attachment has a significant positive relationship with social intelligence and predicts it significantly (Alghamdi et al., 2016; Anwer et al., 2017). In a study conducted with Turkish adolescents, Baytemir (2016) found that increased SAPeer was associated with enhanced interpersonal competencies among adolescents.

Moreover, experimental studies by Bar-On (2000) and Bakermans-Kranenburg et al. (2011), in which insecure attachment style was demonstrated to have a negative effect on social intelligence, documented similar results. The meta-analysis study conducted by Benson, McWey and Ross (2006) posited the hypothesis that general social competence in adolescents is associated with parental attachment and the quality of their relationships with their closest friends. Furthermore, numerous studies have indicated that SAPeer predominantly fosters socio-emotional competence in adolescence (e.g., Laible, 2007; Markiewicz, Doyle & Brendgen, 2001). The results of the present study demonstrate a congruence with those of previous research, which has indicated that secure attachment with a parent is associated with higher levels of social intelligence. Adolescents who acquire social skills through modelling of such skills by their primary caregivers in a secure attachment relationship with their parents are better able to exhibit these social skills in their interpersonal relationships. It is evident that adolescents are capable of establishing a SAPeer, which has been shown to positively meet the need for intimacy and sharing, by utilising the internal working models they possess. This is facilitated by SAParent. The development of their social skills is evident in the secure relationship they have established with their parents, as well as in the safe environment of their peer relationships. Peer relationships are characterised by a greater degree of equality and mutuality in comparison to other types of relationships. Consequently, peer attachment relationships have the capacity to facilitate the cultivation of specific socio-emotional competencies in adolescents, including empathy and prosocial conduct. The development and emergence of love and social intelligence, which are classified as interpersonal CSs, is facilitated by the nurturing and secure environment characteristic of close friendship relationships.

When synthesising the findings of the present study with the results of the study on kindness under the virtue of humanity (Yıldız & Eldeleklioğlu, 2024), it can be concluded that secure attachment to parents predicts the character strength of love more strongly, while secure attachment to friends predicts the character strength of kindness more strongly. It can be interpreted that love is a more strongly predictor of perceived teacher support among the three character strengths. It is important to note that the current explanations regarding the synthesis of the results of these two studies, which were conducted on different samples, should be evaluated within the limitations of this study.

Research findings indicate that CSs play a pivotal role in fostering or sustaining social relationships, which are of significant importance across all life stages (Martinez Marti & Ruch, 2014; Noriega et al., 2022). In one of the studies on love and PSS, Noronha et al. (2019) revealed that love is one of the CSs predicting PSS received from family. Research findings that have yielded analogous results have demonstrated that love exerts a favourable influence on the academic performance and behaviour of students (Cloninger, 2008; Dennis, 2012; Golstein, 1998). In a study conducted by Ekşi et al. (2020), it was found that adolescents' self-perceived social ability (SAPeer) and their perceived level of closeness and compassion (CSs) were significantly predictive of their subjective well-being at school. The findings of the present study indicate a significant association between love CS and PSS from teachers. Consequently, it can be posited that students who contribute to a positive school climate receive more social support from their teachers or perceive the social support they receive more positively.

A review of extant literature indicates a significant positive association between higher levels of social intelligence and higher levels of PSS (Kalefeld, 2020; Rowsell et al., 2014). As posited by B. R. Sarason et al. (1985), the quality of supportive interpersonal relationships is significantly influenced by the individual's own capacity for effective relational functioning and social competence. Consequently, the finding that adolescents with high social intelligence possess superior social and relational skills may facilitate more positive experiences in their social relationships. In the context of the school environment, students who possess high social intelligence are able to cultivate successful relationships with their teachers, as well as establish positive relationships with their peers. It is hypothesised that students who demonstrate such behaviour may receive increased attention from their teachers, which could result in a more positive perception of their relationship with their teachers. This is predicated on the assumption that such students contribute positively to the school climate through the cultivation of positive interpersonal relationships and their more positive approach to their teachers.

It can be hypothesised that the absence of a substantial correlation between love and social intelligence, and the PSS received from family and friends in the present study, may be ascribed to the fact that the study was conducted under exceptional social circumstances (being in isolation due to the pandemic). During this period, the relationships of adolescents with their families, friends, and teachers may have been subject to varying degrees of disruption from each other. When securely attached, adolescents can begin to demonstrate love and social intelligence, along with other CSs, in their relationships with their peers in the school environment. In order to foster these positive traits, teachers may seek to provide additional guidance to these students. Alternatively, individuals may perceive their relationships with their teachers to be more nurturing as a result of their positive internal working models with secure attachment and their love and social intelligence CSs.

Conclusion

The findings of this study suggest that SA_{Peer} is associated with both love and social intelligence, whereas SA_{Parent} is related to these CSs directly and indirectly. Furthermore, it was revealed that love and social intelligence CSs fully mediated the relationship between SA_{Parent} and PSS from teachers, and partially mediated the relationship between SA_{Peer} and PSS from teachers. The significance of SA_{Parent} and SA_{Peer} in the development of love and social intelligence CSs is a salient factor in explaining the variance in PSS from teachers. The present study demonstrated that both emotional intelligence, a subtype of social intelligence, and perceived emotional support from teachers are negatively associated with school exhaustion (Romano et al., 2020). Consequently, there is a compelling argument for the integration of parental education into school-based prevention programs, with a view to establishing a secure connection with the parent. This connection is an essential component in the development of the child's emotional and social intelligence. In addition, the integration of emotional regulation and social skills training into the early years' education curriculum is recommended, with the objective of cultivating a secure friendship. By focusing on love and social intelligence in school-based prevention programmes, it is possible to enhance the PSS students from teachers, as well as to prevent the onset of school exhaustion and

similar mental health problems. A healthy and peaceful school environment is conducive to the development of adolescents' love and social intelligence CSs. Furthermore, adolescents from disadvantaged families can play a protective role in the emergence or exacerbation of mental health problems. It is therefore imperative that educators are equipped with the necessary guidance to recognise and utilise these character strengths. It is imperative that these CSs are incorporated into the training curricula of teacher training institutions. In addition, it is essential to ensure that teachers receive the requisite information through in-service training.

Limitations and Implications

Despite the significance of this study's contribution to the extant literature on the relationships between PSS, secure attachment, love and social intelligence in CSs, it is not without certain limitations. Firstly, the present study employed a correlational design and adopted a descriptive model. The cross-sectional design of the study precludes the possibility of making causal inferences and generalising the findings. Furthermore, the fact that the sample consists of predominantly female students, individuals studying in Anatolian high schools and those residing in a certain province also limits the generalisability of the results. The variables analysed in this study are limited to the measurements obtained from self-report instruments. It is imperative to exercise caution when interpreting the results pertaining to the internal reliability coefficient of the instrument utilised to assess social intelligence character strength, a pivotal variable in the study. This is due to the fact that the instrument exhibits a low internal reliability coefficient for this particular subscale.

The results of this study carry significant implications for researchers operating within the domain of perceived social support and educators who implement practices to augment perceived social support:

1. The validity of the present models can be tested for individuals with different demographic characteristics (age, being under institutional care, different family and school types, etc.). The enhancement of these studies through the utilisation of interview and observational methods, in conjunction with self-report measurement tools, has been demonstrated to be a highly effective approach.
2. Multilevel structural equation models facilitate the re-evaluation of relationships between relevant variables, taking into account a range of demographic characteristics of the participants.
3. In light of the documented positive and significant relationships between the social support perceived from teachers and students' character strengths of love and social intelligence in extant models, studies in which these character strengths are supported in educational environments can be planned.
4. The positive relationships between secure attachment to friends and the character strengths of love and social intelligence identified in the extant models can be used in peer bullying studies.

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All authors were responsible for the initial conceptualisation and design of the study. The responsibility for material preparation, data collection and analysis was assumed by the corresponding author. All authors contributed to the first draft of the article and provided feedback on earlier drafts. All authors have read and approved the final version of the article. All authors played an equal role in the drafting of the final article.

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Conflicts of Interest

The authors state that they have no conflicting interests in regard to this manuscript.

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