

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

Elsa Lumia Da Costa^{1*}, S.G. Jadhav²

ABSTRACT

Emotional intelligence of adolescents is associated with social support and perceived stress. Limited research has explored the combined, and interaction effects of these two variables on emotional intelligence of adolescents. The aim of the present study was to investigate (1) the relationship between social support, perceived stress and emotional intelligence; (2) the controlled effects of social support, perceived stress and sociodemographic variables on emotional intelligence; and (3) the interaction effect of social support and perceived stress on emotional intelligence. The Interpersonal Support Evaluation List (ISEL-12), Perceived Stress Scale (PSS-10) and Brief Emotional Intelligence Scale (BEIS-10) were utilized for data collection in a sample of 1242 adolescents (10-to-19 years). Results show that emotional intelligence and social support were positively correlated, and they were inversely correlated with perceived stress. Emotional intelligence was independently predicted by social support, lower perceived stress, progression in stages of adolescence (age) and rural residence, but not by gender and family type. The effect of perceived stress on emotional intelligence was moderated by social support. At very high levels of social support, perceived stress did not impact adolescents' emotional intelligence. However, as levels of social support decreased, the negative influence of perceived stress on emotional intelligence proportionately increased. Findings identify predictors of emotional intelligence, and suggest that the negative effect of perceived stress on emotional intelligence is greater among adolescents with lower social support. This research highlights the importance of social support networks, during adolescence, and the need to impart developmental-substage-appropriate education in emotional intelligence, stress management and interpersonal skills.

Keywords: *Social Support, Perceived Stress, Emotional Intelligence, Adolescents*

Emotional intelligence is the ability to effectively appraise and regulate emotions in self and others, and to utilize emotions adaptively (Davies et al., 2010). Social support encompasses the appraisal and receipt of emotional, informational or tangible aid and a sense of belongingness, from interpersonal relationships (Cohen et. al., 1985) While, perceived stress is the level to which an individual appraises situations in their life to be stressful (Cohen et al., 1983). Throughout the lifespan, emotional intelligence, social

¹Department of Studies in Psychology, Karnatak University, Dharwad, Karnataka, India.

²Department of Psychology, Karnatak Arts College, Dharwad, Karnataka, India.

*Corresponding Author

Received: April 03, 2025; Revision Received: September 26, 2025; Accepted: September 30, 2025

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

support, and perceived stress interact with one another in complex ways to shape diverse health outcomes.

Among children, the relationship between perceived stress and post-stress growth was mediated by social support and moderated by emotional intelligence (Zhang et al., 2022). In another study among children, social support was positively affected by emotional intelligence, and negatively by stress (Lee & Hwang, 2016). Furthermore, social support was identified as an indirect mediator between stress and self-esteem. Among early adolescents, social support mediated the effect of social-emotional competence on depression and aggression; as well as the effect of emotional intelligence on positive and negative affect (Kang et al., 2022; Zhao et al., 2019). Social support also acted as a moderator and mediator of the link between perceived stress and physical health symptom patterns (Yarcheski & Mahon, 1999). In early and middle adolescents, emotional intelligence mediated the effect of social support on hope and cyber-bullying victimization (Kwok et al., 2024; Elkady, 2019). Perceived stress moderated the effect of emotional intelligence on life satisfaction (Schoeps et al., 2019). Social support mediated the association between perceived stress and depression (Zhang et al., 2014). Social support mediated and moderated the role of emotional intelligence on suicidal ideation – which is highly correlated with stress (Galindo-Domínguez & Iglesias, 2023); and among depressed adolescents, emotional intelligence moderated the relationship between stress and suicidal ideation (Abdollahi et al., 2016). Among middle adolescents, stress (particularly, adaptability and stress management) and social support (particularly practical family support) predicted verbal intelligence and grade-point average (GPA) scores (Hogan et al., 2010). Among few middle and mostly late adolescents, emotional intelligence explained social support, despite the effects of personality; and was promoted as a teachable skill for career readiness (Fabio et al., 2011).

During the course of adolescence, social support and emotional intelligence mutually influenced each other's development (Rowse et al., 2014). Similarly, throughout early, middle and late adolescences, social support (especially from family support) and emotional intelligence (particularly emotional clarity and emotional repair) interact with one another to determine life satisfaction levels and well-being (Azpiazu et al., 2023; Lopez-Zafra et al., 2019; Ruvalcaba-Romero, 2017; Kong et al., 2012). In studies that included all stages of adolescence, emotional intelligence and perceived stress mediated the relationships between physical activity and perceived stress, and emotional intelligence and health-related quality of life (HRQOL), respectively; and both mediated the relationship between physical activity and HRQOL (Li et al., 2024). Emotional intelligence was negatively associated with stress and social anxiety among (Cejudo et al., 2018). Perceived stress serially mediated the relationship between emotional intelligence and problematic social media use (Arrivillaga et al., 2022).

Similarly in late adolescents and adults, social support and emotional intelligence (EI) were independent predictors of well-being and subjective happiness (Hidalgo-Fuentes et al., 2024); social support mediated the relationship between emotional intelligence and life satisfaction (Gallagher & Vella-Brodrick, 2008); and perceived stress mediated the relationship between EI and life satisfaction and happiness (Ruiz-Aranda et al., 2013). Among college students, greater social support was associated with lower stress, higher emotional intelligence, life satisfaction, better academic performance, and lesser alcohol consumption (Whitney, 2010). Among university students, social support mediated the relationship between emotional intelligence and post-traumatic stress symptoms; EI and life satisfaction; and the longitudinal association between EI and well-being, while perceived

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

stress did not (Hofman et al., 2016; Kong et al., 2012; Malinauskas & Malinauskiene, 2020). Among young adults, psychological social support mediated the relationship between EI and distress. Among adults, emotional intelligence was also inversely related to stress, and social support mediated this association (Ullah et al., 2023).

The developmental period of adolescence (10-to-19-years) is influential in determining adult mental health outcomes (Raphael, 2013). Moreover, globally about 50% of mental health disorders in the population occur before the age of 18 years, making this an incredibly sensitive period and ideal for effective early intervention (Solmi et al., 2022; Viner et al., 2017; Backes & Bonnie, 2019). The protective role of emotional intelligence and social support; and the deleterious impact of stress perception, on mental health outcomes in childhood, adolescence and adulthood, are well established. Thus, improving social support networks, imparting stress management and emotional intelligence skills-education during adolescence could be a sustainable intervention option with potential to influence lifetime health outcomes.

The present study aims at assessing the effects of social support, perceived stress and sociodemographic variables on emotional intelligence of adolescents; and to assess the interaction between social support and perceived stress in predicting emotional intelligence. The effects of social support and stress on emotional intelligence of adolescents have been widely documented, however their interaction effect remains unexplored (Azpiazu et al., 2023; Li et al., 2024, Sarrionandia et al., 2018; Cejudo et al., 2018).

Objectives of the study

- Measure the correlation between social support, perceived stress and emotional intelligence of adolescents.
- Assess the effect of social support and perceived stress on emotional intelligence amidst sociodemographic effects.
- Evaluate the interaction between social support and perceived stress in influencing emotional intelligence of adolescents.

METHODOLOGY

Sample

Purposive sampling technique was used to recruit research participants from educational institutes. The final sample comprised of 1242 adolescents between the ages 10 to 19 years from the general population in South Goa, India. They represented three stages of adolescence, early (10 to 13 years) ($n=408$); middle (14 to 16 years) ($n=433$); and late (17 to 19 years) ($n=401$) adolescence. Of the total respondents, 52.4% were females ($n=651$). In terms of area of residence, 31% of adolescents belonged to urban regions, while 69% represented rural residence. A total of 66.2% of the participants were from nuclear families, while 33.8% were from joint family households.

Instruments

Data was collected on self-report questionnaires consisting of a brief sociodemographic schedule and three psychometric tests. These measures were as follows:

1. **Sociodemographic Form.** Research participants reported their gender, age, urban/rural residence status and nuclear/joint family type. In the present study, age was computed as an ordinal variable representing early, middle and late stages of adolescence, and is referred to as 'progression in stages of adolescence'.

2. **Interpersonal Support Evaluation List (ISEL-12)**. by Sheldon Cohen et. al. (1985) was constructed to measure an individual's evaluation of their interpersonal support. This questionnaire yields a total score of social support perception by summing scores on three subscales: 1) appraisal support, 2) belonging support, and 3) tangible support. The ISEL-12 has twelve items such as: 'There is someone I can turn to for advice about handling problems with my family'; 'If I were stranded 10 miles from home, there is someone I could call who could come and get me'. Responses to each item were scaled on a 4-point Likert scale, with 1 for 'definitely false', 2 for 'probably false', 3 for 'probably true', and 4 for 'definitely true'. Six items were reverse scored, and the sum of 12 items yielded the total score of social support. Responses on this scale in the present study had a Cronbach's alpha ($\alpha=.756$) suggesting good reliability.
3. **Perceived Stress Scale (PSS-10)**. This psychometric tool was developed by Cohen et al. (1983). It measures the degree to which an individual appraises situations in their life as stressful, and is an outcome measure of one's experienced levels of stress. Respondents must indicate their level of perceived stress in the past month on 10 items. Sample items include: 'In the last month, how often have you felt confident about your ability to handle personal problems?'; 'In the last month, how often have you found that you could not cope with all the things that you had to do?' Each item is scaled on a 5-point Likert scale, with responses as follows: 0 - never, 1 – almost never, 2 – sometimes, 3 – fairly often, and 4 - very often. Four items were reverse-scored, and the sum of the total ten items yielded final score of perceived stress. The Cronbach's alpha ($\alpha=0.733$) indicated good reliability of responses in the present study.
4. **Brief Emotional Intelligence Scale (BEIS-10)**. is a psychometric measurement tool of emotional intelligence (EI) developed by Davies et. al. (2010). This scale measures processing of emotions on 5 dimensions of the ability model of EI by Mayer & Salovey (1997; 1990). The scale provides a total score of EI and sub-scores on 1) appraisal of own emotions, 2) appraisal of others' emotions, 3) regulation of own emotions, 4) regulation of others' emotions, and 5) utilization of emotions. This psychometric tool contains ten items, such as: 'I easily recognise my emotions as I experience them'; 'I can tell how people are feeling by listening to the tone of their voice' and 'I use good moods to help myself keep trying in the face of obstacles'. Response on each item was scored on a 5-point Likert scale ranging from 1 for 'strongly disagree' to 5 for 'strongly agree'. Summing all scores yielded the total score of emotional intelligence. The Cronbach's alpha for this scale in the current study is $\alpha=0.751$, suggesting good reliability.

Procedure

Prior to commencement, the study received ethical approval from the institutional doctoral committee. Participants were recruited from nine educational establishments. Ethical guidelines were strictly adhered to throughout the data collection process. Participants were debriefed in their classrooms about the purpose of study, and their rights as research participants. Consent forms for parent/guardians and assent forms for adolescent respondents, were distributed to each participant. The following day, participants with signed informed consent and assent forms were included in the study. Questionnaires were group-administered, and instructions were clearly dictated. No time limit was set, but completion took under one hour.

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

Hypotheses

- **H1 1.** Social support, perceived stress, and emotional intelligence will be significantly correlated.
- **H1 2.** Social support and perceived stress will predict emotional intelligence, despite effects from sociodemographic factors.
- **H1 3.** The interaction of social support and perceived stress will significantly influence emotional intelligence.

Data Processing and Analysis

Data was analyzed using IBM SPSS Version 25.00. For cases with missing responses, listwise deletion was undertaken. Scale reliability coefficients were obtained by computing Cronbach's alpha (α) tests. Pearson's bivariate correlations (r) with two-tailed tests of significance were used for correlation analysis. The level of statistical significance was set at ($p < .05$).

For regression analyses, dummy variables ($k - 1$) were created for gender (0 female and 1 male), residence (0 urban and 1 rural), and family type (0 nuclear and 1 joint). Progression in stages of adolescence or age was treated as an ordinal variable (1 for early; 2 for middle; and 3 for late adolescents). General linear regression models were run for testing the effect of a single explanatory variable on the outcome variable. To test the effect of more than one explanatory variable, we utilized multiple linear regression models. We report the effect size beta (β) and its p -value (p) for each explanatory variable, and the R , adjusted R^2 ($_{adj}R^2$), F statistic and p -value (p) of the whole regression. Semi-partial correlation coefficients of each explanatory variable were squared (sr^2) to measure the percentage of variance in the outcome that was uniquely contributed by that explanatory variable. Confidence intervals were set at 95%. Tolerance statistics and the Durbin-Watson values indicated no multicollinearity and no auto-correlation, respectively.

PROCESS macro procedure v4.2 on SPSS was utilized to assess interaction effects (Hayes, 2022). Model 1 for moderation was selected. The focal predictor and moderator were mean centered prior to analysis. Confidence intervals were set at 95%, and 5000 bootstrap samples were selected. We report the beta coefficients (β) and their p -value (p) for the focal predictor, the moderator, and the interaction term; and the R , R^2 , F statistic and p -value (p) of the whole regression. The Johnson-Neyman output was used to identify the better suited moderator in the interaction; to examine and plot the conditional effects of the predictor on the outcome, at different levels of the moderator; to indicate the level of moderator at which the focal predictor significantly affects the outcome; and the regions wherein interaction effects are significant.

RESULTS

Table 1. Pearson's bivariate correlation coefficients of social support, perceived stress and emotional intelligence of adolescents

	Emotional Intelligence	Perceived stress
Social Support	.307**	-.421**
Perceived stress	-.207	1

***. Correlation is significant at the 0.01 level (2-tailed).*

Emotional intelligence was positively correlated with social support ($r = .307$, $p < .01$) and inversely correlated with perceived stress ($r = -.207$, $p < .01$). Although, statistically

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

significant the correlation coefficients indicated a weak relationship. Perceived stress had a moderate inverse correlation with social support ($r = -.421, p < .01$). In other words, higher emotional intelligence was associated with greater social support and lower perceived stress; while, higher perceived stress was associated with lower social support. Thus, the hypothesis H1 1. stating ‘social support, perceived stress, and emotional intelligence will be significantly correlated’ has been accepted.

Table 2. Results of general linear and multiple linear regression models explaining emotional intelligence of adolescents.

	Explanatory Variables	β	p	sr^2	R	$adjR^2$	F	p
1	Social support	.307	.000	.094	.307	.093	128.69	.000
2	Perceived stress	-.207	.000	.042	.207	.042	55.527	.000
3	Social support	.265	.000	.057	.320	.101	70.547	.000
	Perceived stress	-.100	.001	.008				
4	Social support	.256	.000	.052	.350	.117	24.769	.000
	Perceived stress	-.161	.000	.018				
	Progression in stages of adolescence	.139	.000	.017				
	Residence	.068	.020	.006				
	Gender	-.044	.129	.002				
	Family type	-.044	.128	.002				

Outcome Variable – Emotional Intelligence

Table 2 presents the results of two general and two multiple linear regression models examining emotional intelligence as the outcome. Model 1 and 2 indicate that social support ($\beta = .307, adjR^2 = .093$) and perceived stress ($\beta = -.207, adjR^2 = .042$) were significant predictors of emotional intelligence. In the multiple linear regression model 3, social support ($\beta = .265, sr^2 = .057$) and stress ($\beta = -.100, sr^2 = .008$) independently predicted emotional intelligence ($R = .320, adjR^2 = .101, F = 70.547, p < .000$), albeit with lower effect size. Together, social support and perceived stress explained 10.1% variance in emotional intelligence.

Similarly in model 4, sociodemographic variables were entered along with social support and perceived stress to examine their combined influence on emotional intelligence, and the unique independent variance contributed by each variable. Social support ($\beta = .256, sr^2 = .052$) and perceived stress ($\beta = -.161, sr^2 = .018$) explained emotional intelligence with greater independent variance despite sociodemographic effects ($R = .350, adjR^2 = .117, F = 24.769, p < .000$). Findings support the hypothesis H1 2. stating ‘social support and perceived stress will predict emotional intelligence, despite effects from sociodemographic factors.

Social support predicted higher emotional intelligence, while perceived stress predicted lower emotional intelligence, despite the effects of sociodemographic characteristics. With regards to sociodemographic factors, effect of age - measured as ordinal stages of adolescence - independently influenced an increase in emotional intelligence ($\beta = .139, sr^2 = .017$). As stages of adolescence progressed, emotional intelligence increased, with older adolescents reporting higher emotional intelligence than younger adolescents. Furthermore, adolescents residing in urban regions reported significantly lower emotional intelligence compared to rural residents ($\beta = .068, sr^2 = .006$). Gender and nuclear/joint family status did not independently influence emotional intelligence in this model.

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

To investigate whether social support and perceived stress interact to impact emotional intelligence, we carried out a moderation analysis on SPSS using PROCESS macro model 1. Results of the model with the interaction effect are reported in Table 3.

Table 3. Moderation analysis examining the interaction between social support and perceived stress in influencing emotional intelligence of adolescents.

Explanatory Variables	β	t	p	R	R^2	F	p
constant	36.740	195.291	.000				
Social Support	.273	8.776	.000	.325	.106	48.901	.000
Stress	-.100	-3.460	.000				
Interaction Term	.007	2.267	.023				

Outcome Variable – Emotional Intelligence

Social support ($\beta=.273$, $p<.000$), perceived stress ($\beta=-.100$, $p<.000$) and their interaction ($\beta=.007$, $p=.023$) significantly impacted emotional intelligence, $R=.325$, $R^2=.106$; $F=48.901$, $p<.000$. Tests of highest order unconditional interactions were used to assess the interaction effect beyond main effects. The change in R^2 (ΔR^2) due to the interaction was statistically significant ($\Delta R^2=.004$, $F=5.139$, $p=.024$). Thereby supporting the hypothesis H1 3. that, the interaction of social support and perceived stress will significantly influence emotional intelligence.

The Jonhson-Neyman tests identified social support moderated the effect of perceived stress on emotional intelligence. Among adolescents with low social support, the negative impact of perceived stress on emotional intelligence was greater, compared to adolescents with high social support. These conditional effects of perceived stress on emotional intelligence at mean +/- one standard deviation of social support are reported in Table 4.

Table 4. Results of Johnson-Neyman test examining the conditional effects of perceived stress on emotional intelligence at mean +/- standard deviations of social support.

Social Support levels	Perceived Stress β	Standard Error	t	p	Lower Limit C.I.	Upper Limit C.I.
-20.9483	-.257	.076	-3.380	.001	-.406	-.10
-19.198	-.244	.071	-3.449	.001	-.382	-.105
-17.448	-.230	.065	-3.525	.000	-.359	-.102
-15.698	-.217	.060	-3.608	.000	-.336	-.099
-13.948	-.204	.055	-3.698	.000	-.313	-.096
-12.198	-.191	.050	-3.793	.000	-.290	-.092
-10.448	-.178	.046	-3.890	.000	-.268	-.088
-8.698	-.165	.041	-3.981	.000	-.246	-.084
-6.948	-.152	.037	-4.049	.000	-.225	-.078
-5.198	-.139	.034	-4.070	.000	-.206	-.072
-3.448	-.126	.031	-4.003	.000	-.187	-.064
-1.698	-.112	.030	-3.804	.000	-.170	-.054
.052	-.099	.029	-3.447	.001	-.156	-.043
1.802	-.086	.029	-2.950	.003	-.144	-.029
3.552	-.073	.031	-2.379	.018	-.133	-.013
<u>*4.817</u>	<u>-.064</u>	<u>.032</u>	<u>-1.962</u>	<u>.050</u>	<u>-.127</u>	<u>.000</u>
5.302	-.060	.033	-1.807	.071	-.125	.005

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

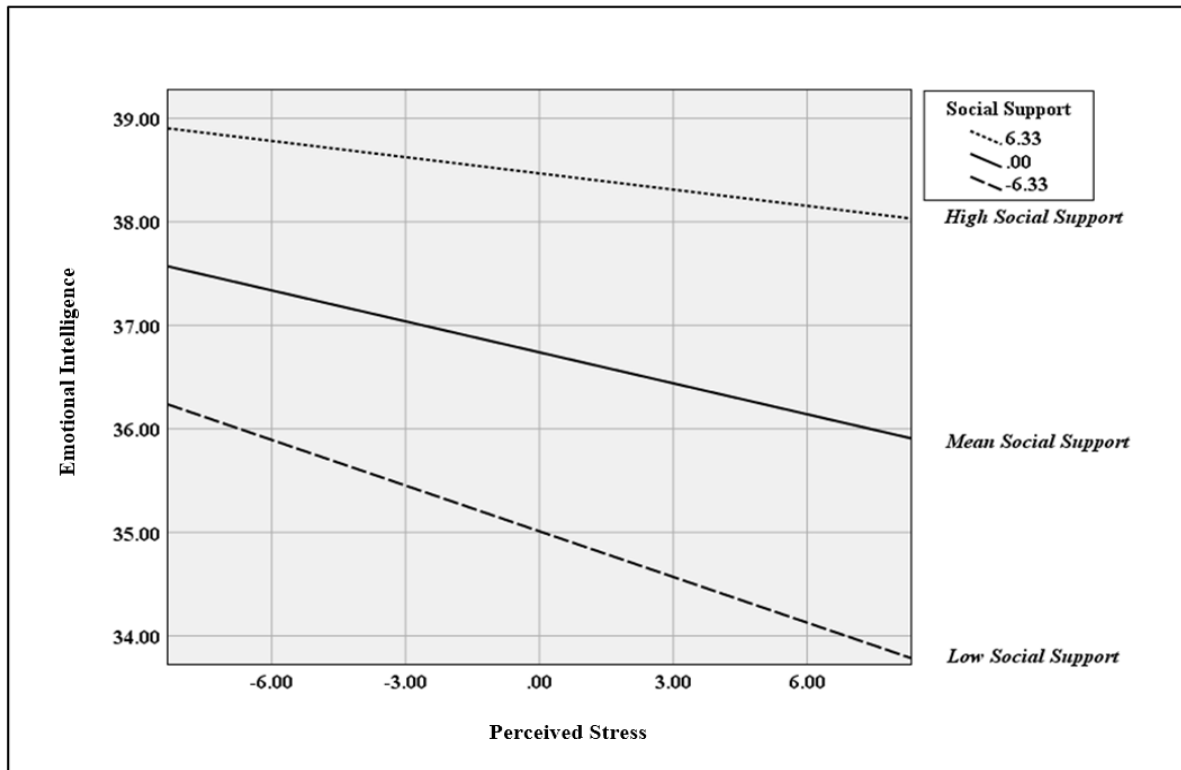
7.052	-.047	.036	-1.287	.198	-.118	.025
8.802	-.034	.040	-.840	.401	-.113	.045
10.552	-.021	.044	-.465	.642	-.108	.067
12.302	-.008	.049	-.154	.878	-.104	.089
14.052	-.006	.054	.104	.918	-.100	.111

Outcome Variable - Emotional Intelligence

*** Johnson-Neyman: Moderator Value**

The Johnson-Neyman significance regions indicate that adolescents in the first quartile (25.50%) of social support levels, did not experience a significant effect ($p > .05$) of perceived stress on emotional intelligence. In adolescents who reported Q2 to Q4 lower range (74.50%) of social support levels, perceived stress significantly and negatively impacted emotional intelligence. Perceived stress became a significant predictor of emotional intelligence when social support was 4.82 and lower. As social support levels decreased, the effect size of perceived stress on emotional intelligence increased. These conditional effects of perceived stress on emotional intelligence at three levels of social support were graphed on a scatter plot. Regression lines were fit through the scatter of each social support level. Figure 1 illustrates the conditional effects of stress on emotional intelligence at high, mean and low social support.

Figure 1. Regression lines illustrating the conditional effects of perceived stress on emotional intelligence at varying levels of social support.



As indicated by the slopes of the regression lines in Figure 1, the relationship between perceived stress and emotional intelligence was linear at all levels of social support. The fit line of high social support however, was close to flat - as corroborated by the Johnson-Neyman significance ranges, and the coefficients in Table 4. The negative slope of mean social support was slightly steeper compared to high support, suggesting emergence of

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

significant effects of perceived stress on emotional intelligence at mean levels of social support. The regression line of low social support was very steep in comparison to high and mean social support levels. This fit line demonstrates the increasingly negative effect of perceived stress on emotional intelligence, especially among adolescents with low social support.

DISCUSSION

Empirical data in the present study indicates that social support protects adolescents from the negative effects of perceived stress on emotional intelligence. This study is the first to provide evidence of (1) social support as a moderator of the relationship between perceived stress and emotional intelligence; and (2) the independent effect of social support and perceived stress on emotional intelligence of 10-to-19-year-old adolescents, despite sociodemographic factors. Other findings which were consistent with prior research are discussed.

The negative impact of perceived stress on emotional intelligence was greater among adolescents who reported low levels social support compared to those with higher social support. In other words, the relationship between adolescents' perceived stress and emotional intelligence was dependent on the level of social support. Perceived stress did not impact emotional intelligence of adolescents who reported very high social support (first quartile Q1). In adolescents who reported slightly high, mean and lower levels of social support however, perceived stress significantly impacted emotional intelligence incrementally. These conditional effects of perceived stress on emotional intelligence at various levels of social support were observed among a sample comprising early, middle and late adolescents.

Existing evidence has demonstrated a similar role of social support in multiplying the effects of the association between life satisfaction and emotional intelligence in adolescents reporting moderate and high levels of social support (Lopez-Zafra et al., 2019). Similarly, social support has been repeatedly identified as a moderator of stress (Soman et al., 2016; Cohen, 2004; Glozah, 2013). Lopez-Zafra et al. (2019) support mediated the relationship between EI and life satisfaction. Furthermore, the role of social support in buffering the impact of stress on physical health has long been established (Cohen & Wills, 1985; Hostinar & Gunnar, 2015). This study is the first to report this interaction with emotional intelligence as the outcome.

Corroborating earlier studies among adolescents, social support and emotional intelligence were positively correlated (Hidalgo-Fuentes et al., 2024; Azpiazu et al., 2023; Lopez-Zafra et al., 2019; Metaj-Macula, 2017; Singh, 2023); while, inverse correlations were observed between perceived stress and emotional intelligence (Kartol et al., 2024; Arrivillaga et al., 2022) and perceived stress and social support (Sabellano et al., 2024; Maggo & Dutt, 2023; McLean et al., 2022; Anjum & Singh, 2021). Snyder (1999) opined that emotionally intelligent individuals have access to richer social support networks to help reduce stress.

In line with prior research among adolescents, social support predicted higher emotional intelligence (Azpiazu et al., 2023) and perceived stress predicted lower emotional intelligence (Li et al., 2024, Sarrionandia et al., 2018; Cejudo et al., 2018). In the present study, social support and perceived stress were independent predictors of emotional intelligence despite effects from sociodemographic factors. Other than social support and low perceived stress, progression in stages of adolescence (age) and rural residence

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

predicted emotional intelligence of adolescents. Gender and nuclear/joint family type did not influence emotional intelligence when the above variables were adjusted.

The effect of age - measured as ordinal stages of adolescence - independently predicted greater emotional intelligence. In other words, as stages of adolescence progressed, emotional intelligence increased, with older adolescents reporting higher emotional intelligence than younger adolescents. These findings are consistent with prior studies among adolescents wherein age was linearly associated with increased emotional intelligence (Megías-Robles et al., 2024; Azpiazu et al., 2023; Nayak, 2014). Other studies showed no effects of age (Alumran & Punamäki, 2008; Harrod & Scheer, 2005) as well as mixed results depending on the dimension of emotional intelligence (Costa et al., 2021).

Adolescents residing in urban regions reported significantly lower emotional intelligence compared to rural residents. A prior study among middle and late adolescents reported no significant relationship between emotional intelligence and location of residence (Harrod & Scheer, 2005), while in another study, urban adolescents had greater emotional intelligence levels than those living in rural areas (Nayak, 2014). Further research is needed to ascertain influences of one's locality on emotional intelligence.

In accordance with some prior research, no gender difference in emotional intelligence was observed (Salavera et al., 2017; Das & Tripathy, 2015; Nasir et al., 2011). However, a bulk of evidence suggests that adolescent girls tend to have higher emotional intelligence levels compared to male counterparts (Furqani & Furqani, 2020; Megías-Robles et al., 2024; Nayak, 2014; Alumran & Punamäki, 2008; Harrod & Scheer, 2005; Ciarrochi et al., 2001). Other evidence has demonstrated mixed results, with girls reporting higher in some dimensions of EI, while boys scored higher in other dimensions of EI (Costa et al., 2021).

Nuclear or joint family status did not independently influence emotional intelligence in this model. These findings are inconsistent with results from studies undertaken in India by (Raj, 2018; Kondiba & Hari, 2018; Shafiq & Khan, 2015) which found that adolescents from nuclear families had higher emotional intelligence than adolescents from joint families. While Ahangar and Khan (2017) found contrary results, with adolescents from joint families reporting greater EI abilities.

CONCLUSION

Emotional intelligence of adolescents was predicted by greater social support, lower perceived stress, age and rural residence. The effect of perceived stress on emotional intelligence was moderated by social support levels.

REFERENCES

- Abdollahi, A., Carlbring, P., Khanbani, M., & Ghahfarokhi, S. A. (2016). Emotional intelligence moderates perceived stress and suicidal ideation among depressed adolescent inpatients. *Personality and Individual Differences, 102*, 223–228. <https://doi.org/10.1016/j.paid.2016.07.015>
- Ahangar, M. M., & Khan, M. A. (2017). Emotional intelligence of adolescents of nuclear and joint Families- a comparative study. *International Journal in Management and Social Science, 5*(1), 156–162. https://www.academia.edu/38630852/Emotional_Intelligence_of_Adolescents_of_Nuclear_and_Joint_Families_A_Comparative_Study
- Alumran, J. I., & Punamäki, R. (2008). Relationship between gender, age, academic achievement, emotional intelligence, and coping styles in Bahraini adolescents.

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

- EBSCOhost. https://openurl.ebsco.com/EPDB%3Aagd%3A1%3A20785345/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aagd%3A32779257&crl=c&link_origin=scholar.google.co.in
- Anjum, R., & Singh, D. (2020). Investigating the relationship between social support and stress among adolescents. *Shodh Sanchar Bulletin*, 11(41), 81–85. https://www.researchgate.net/publication/355337541_Investigating_The_Relationship_Between_Social_Support_And_Stress_Among_Adolescents
- Arrivillaga, C., Rey, L., & Extremera, N. (2021). A mediated path from emotional intelligence to problematic social media use in adolescents: The serial mediation of perceived stress and depressive symptoms. *Addictive Behaviors*, 124, 107095. <https://doi.org/10.1016/j.addbeh.2021.107095>
- Azpiazu, L., Antonio-Agirre, I., Fernández-Zabala, A., & Escalante, N. (2023). How Does Social Support and Emotional Intelligence Enhance Life Satisfaction Among Adolescents? A Mediational Analysis Study. *Psychology research and behavior management*, 16, 2341–2351. <https://doi.org/10.2147/PRBM.S413068>
- Backes, E. P., & Bonnie, R. J. (2019, May 16). *Adolescent Development*. The Promise of Adolescence - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK545476/>
- Cejudo, J., Rodrigo-Ruiz, D., López-Delgado, M. L., & Losada, L. (2018). Emotional Intelligence and Its Relationship with Levels of Social Anxiety and Stress in Adolescents. *International Journal of Environmental Research and Public Health*, 15(6), 1073. <https://doi.org/10.3390/ijerph15061073>
- Ciarrochi, J., Chan, A. Y., & Bajgar, J. (2001). Measuring emotional intelligence in adolescents. *Personality and Individual Differences*, 31(7), 1105–1119. [https://doi.org/10.1016/s0191-8869\(00\)00207-5](https://doi.org/10.1016/s0191-8869(00)00207-5)
- Cohen S. (2004). Social relationships and health. *The American psychologist*, 59(8), 676–684. <https://doi.org/10.1037/0003-066X.59.8.676>
- Cohen S., Mermelstein R., Kamarck T., & Hoberman, H.M. (1985). Measuring the functional components of social support. In Sarason, I.G. & Sarason, B.R. (Eds), *Social support: theory, research, and applications*. The Hague, Netherlands: Martinus Nijhoff. https://link.springer.com/chapter/10.1007/978-94-009-5115-0_5
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin*, 98(2), 310. <https://psycnet.apa.org/journals/bul/98/2/310/>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396.
- Costa, H., Saavedra, F., & Fernandes, H. M. (2021). Emotional intelligence and well-being: Associations and sex- and age-effects during adolescence. *Work*, 69(1), 275–282. <https://doi.org/10.3233/wor-213476>
- Das, P. P. P., & Tripathy, S. (2015). Role of Emotional intelligence on aggression: A comparison between adolescent boys and girls. *Psychology and Behavioral Sciences*, 4(1), 29–35. <https://doi.org/10.11648/j.pbs.20150401.15>
- Davies, K., Lane, A. M., Devonport, T. J., & Scott, J. A. (2010). Validity and Reliability of a Brief Emotional Intelligence Scale (BEIS-10). *Journal of Individual Differences*, 31(4), 198–208. <https://doi.org/10.1027/1614-0001/a000028>
- Elkady, A. a. M. (2019). *The Mediating Role of Emotional Intelligence in the Relationship between Perceived Social Support and Cyber-Bullying Victimization among Adolescents in Egypt*. <https://perrjournal.com/index.php/perrjournal/article/view/166>
- Furqani, Z. N. N. (2020). The role of emotional intelligence in adolescent development. *Proceedings of the 4th ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2018)*. <https://doi.org/10.2991/assehr.k.200120.058>

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

- Galindo-Domínguez, H., & Iglesias, D. L. (2023). Emotional intelligence and suicidal ideation in adolescents: The mediating and moderating role of social support. *Revista De Psicodidáctica (English Ed)*, 28(2), 125–134. <https://doi.org/10.1016/j.psicoe.2023.02.001>
- Gallagher, E. N., & Vella-Brodrick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and Individual Differences*, 44(7), 1551–1561. <https://doi.org/10.1016/j.paid.2008.01.011>
- Glozah, F. N. (2013). Effects of academic stress and perceived social support on the psychological wellbeing of adolescents in Ghana. *Open Journal of Medical Psychology*, 02(04), 143–150. <https://doi.org/10.4236/ojmp.2013.24022>
- Harrod, N. R., & Scheer, S. D. (2004). An exploration of adolescent emotional intelligence in relation to demographic characteristics. *Adolescence*, 40(159), 503–512. https://www.researchgate.net/profile/Scott-Scheer/publication/7500241_An_exploration_of_adolescent_emotional_intelligence_in_relation_to_demographic_characteristics/links/62a9f07ea920e8693ef64abf/An-exploration-of-adolescent-emotional-intelligence-in-relation-to-demographic-characteristics.pdf?__cf_chl=tk=SWLB0ZQjn89ZkCx_SvCZSF4N8gcTtrHxujj5M8.HBOc-1741968722-1.0.1.1-_h4coof8ZOSKUb8X89Ie_AWbKNeEevVIWWE6aOfVnw
- Hayes, A. F. (2022). *Introduction to Mediation, Moderation, and Conditional Process Analysis A Regression-Based Approach (Vol. 3)*. The Guilford Press. - References - Scientific Research Publishing. (n.d.). <https://www.scirp.org/reference/referencespapers?referenceid=3495201>
- Hidalgo-Fuentes, S., Martínez-Álvarez, I., Sospedra-Baeza, M. J., Martí-Vilar, M., Merino-Soto, C., & Toledano-Toledano, F. (2024). Emotional Intelligence and Perceived Social Support: Its Relationship with Subjective Well-Being. *Healthcare*, 12(6), 634. <https://doi.org/10.3390/healthcare12060634>
- Hofman, N. L., Hahn, A. M., Tirabassi, C. K., & Gaher, R. M. (2016). Social support, emotional intelligence, and posttraumatic stress disorder symptoms. *Journal of Individual Differences*, 37(1), 31–39. <https://doi.org/10.1027/1614-0001/a000185>
- Hogan, M. J., Parker, J. D. A., Wiener, J., Watters, C., Wood, L. M., & Oke, A. (2010). Academic success in adolescence: Relationships among verbal IQ, social support and emotional intelligence. *Australian Journal of Psychology*, 62(1), 30–41. <https://doi.org/10.1080/00049530903312881>
- Hostinar, C. E., & Gunnar, M. R. (2015). Social Support Can Buffer against Stress and Shape Brain Activity. *AJOB neuroscience*, 6(3), 34–42. <https://doi.org/10.1080/21507740.2015.1047054>
- Kang, Y., Ha, J., Ham, G., Lee, E., & Jo, H. (2022). A structural equation model of the relationships between social-emotional competence, social support, depression, and aggression in early adolescents in South Korea. *Children and Youth Services Review*, 138. <https://www.sciencedirect.com/science/article/abs/pii/S0190740922001347>
- Kartol, A., Üztemur, S., Griffiths, M. D., & Şahin, D. (2024). Exploring the interplay of emotional intelligence, psychological resilience, perceived stress, and life satisfaction: A cross-sectional study in the Turkish context. *BMC Psychology*, 12(1). <https://doi.org/10.1186/s40359-024-01860-0>
- Kondiba, B.V. & Hari, K.S. (2018). Emotional maturity among joint family and nuclear family children [Research paper]. *The International Journal of Indian Psychology*, 6(2), 109–112. https://ijip.in/wp-content/uploads/ArticlesPDF/article_8113079397616423a4afcad743cff57b.pdf
- Kong, F., Zhao, J., & You, X. (2012). Emotional intelligence and life satisfaction in Chinese university students: The mediating role of self-esteem and social support. *Personality*

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

- and Individual Differences*, 53(8), 1039–1043. <https://doi.org/10.1016/j.paid.2012.07.032>
- Kwok, S. Y. C. L., Gu, M., & Lai, K. Y. (2024). A longitudinal study of perceived social support from friends and hope in adolescents: emotional intelligence as the mediator. *Current Psychology*, 43(25), 21518–21529. <https://doi.org/10.1007/s12144-024-05875-z>
- Lee, C. S., & Hwang, Y. K. (2016). The effects of hope, emotional intelligence, and stress on the self-esteem of rural elementary school students in Korea: The mediating effect of social support. *Indian Journal of Science and Technology*, 9(26). <https://doi.org/10.17485/ijst/2016/v9i26/97278>
- Li, Q., Li, L., Li, C., & Wang, H. (2024). The association between moderate-to-vigorous physical activity and health-related quality of life in Chinese adolescents: the mediating roles of emotional intelligence and perceived stress. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1477018>
- Lopez-Zafra, E., Ramos-Álvarez, M. M., Ghoudani, K. E., Luque-Reca, O., Augusto-Landa, J. M., Zarhouch, B., Alaoui, S., Cortés-Denia, D., & Pulido-Martos, M. (2019). Social Support and Emotional intelligence as Protective Resources for Well-Being in Moroccan Adolescents. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01529>
- Maggo, V., & Dutt, S. (2023). Impact of perceived social support and perceived stress on positive & negative affect among adults. *The International Journal of Indian Psychology*, 11(4). <https://ijip.in/wp-content/uploads/2023/10/18.01.059.20231104.pdf>
- Malinauskas, R., & Malinauskiene, V. (2020). The Relationship between Emotional Intelligence and Psychological Well-Being among Male University Students: The Mediating Role of Perceived Social Support and Perceived Stress. *International Journal of Environmental Research and Public Health*, 17(5), 1605. <https://doi.org/10.3390/ijerph17051605>
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–34). Basic Books.
- McLean, L., Gaul, D., & Penco, R. (2022). Perceived Social Support and Stress: a Study of 1st Year Students in Ireland. *International journal of mental health and addiction*, 1–21. Advance online publication. <https://doi.org/10.1007/s11469-021-00710-z>
- Megías-Robles, A., Gutiérrez-Cobo, M. J., Fernández-Berrocal, P., Gómez-Leal, R., & Cabello, R. (2024). The development of ability emotional intelligence during adolescence. *Personality and Individual Differences*, 224, 112642. <https://doi.org/10.1016/j.paid.2024.112642>
- Metaj-Macula, A. (2017). The Relationship between Emotional Intelligence and Perceived Social Support. *Journal of Educational and Social Research*, 7(1), 168–172. <https://doi.org/10.5901/jesr.2017.v7n1p168>
- Nasir, F., & Munaf, S. (2011). Emotional Intelligence and Academics of Adolescents: A Correlational and gender Comparative Study. *EBSCOhost*. https://openurl.ebsco.com/EPDB%3Aagd%3A5%3A15027045/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aagd%3A88424897&crl=c&link_origin=scholar.google.co.in
- Nayak, M. (2014). Impact of culture linked gender and age on emotional intelligence of higher secondary school adolescents. *International Journal of Advancements in Research and Technology*, 3(9), 64-79.

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

- Raj, P. A., S. J. (2018). Relationship between emotional intelligence and adjustment of Ho Tribe High School students in Jharkhand. *Research and Reflections on Education*, 16(4). <https://www.sxcejournal.com/oct-dec-2018/paper3.pdf>
- Raphael, D. (2013). Adolescence as a gateway to adult health outcomes. *Maturitas*, 75(2), 137–141. <https://doi.org/10.1016/j.maturitas.2013.03.013>
- Rowell, H. C., Ciarrochi, J., Deane, F. P., & Heaven, P. C. L. (2014). Emotion identification skill and Social Support during Adolescence: A Three-Year longitudinal study. *Journal of Research on Adolescence*, 26(1), 115–125. <https://doi.org/10.1111/jora.12175>
- Ruiz-Aranda, D., Extremera, N., & Pineda-Galán, C. (2013). Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: the mediating effect of perceived stress. *Journal of Psychiatric and Mental Health Nursing*, 21(2), 106–113. <https://doi.org/10.1111/jpm.12052>
- Ruvalcaba-Romero, N. A., Fernández-Berrocal, P., Salazar-Estrada, J. G., & Gallegos-Guajardo, J. (2017). Positive emotions, self-esteem, interpersonal relationships and social support as mediators between emotional intelligence and life satisfaction. *Journal of Behavior Health & Social Issues*, 9(1), 1–6. <https://doi.org/10.1016/j.jbhsi.2017.08.001>
- Sabellano, K. G. M., Amac, J. M., Balbarino, J. C., Cano, J. B., Comonal, K. N., Cordero, E. J. B., Desoasido, J. M. M., Manigos, K. N. G., Molos, Z. M. E., Rodriguez, G. S., Torrejas, S. E., Clamores, K. J. M., & Pelandas, A. M. O. (2024). The Relationship between Perceived Social Support and Adolescent Stress among Grade 12 Students. *International Journal of Research and Innovation in Social Science*, VIII(IV), 3067–3074. <https://doi.org/10.47772/ijriss.2024.804286>
- Salavera, C., Usán, P., & Jarie, L. (2017). Emotional intelligence and social skills on self-efficacy in Secondary Education students. Are there gender differences? *Journal of Adolescence*, 60(1), 39–46. <https://doi.org/10.1016/j.adolescence.2017.07.009>
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/dugg-p24e-52wk-6cdg>
- Sarrionandia, A., Ramos-Díaz, E., & Fernández-Lasarte, O. (2018). Resilience as a mediator of emotional intelligence and Perceived stress: A Cross-Country Study. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02653>
- Schoeps, K., Montoya-Castilla, I., & Raufelder, D. (2019). Does stress mediate the association between emotional intelligence and life satisfaction during adolescence? *Journal of School Health*, 89(5), 354–364. <https://doi.org/10.1111/josh.12746>
- Shafiq, M., & Khan, R. (2015). Emotional maturity among adolescents: A comparative study of nuclear and joint families. *Researchpaedia*, 3(2). https://www.academia.edu/29453322/Emotional_Maturity_Among_Adolescents_A_Comparative_Study_of_Nuclear_And_Joint_Families
- Singh, K. (2024). The impact of social support and emotional intelligence on impulsiveness in young adults. *International Journal of Indian Psychology*, 11(3), 638–653. <https://ijip.in/wp-content/uploads/2023/07/18.01.061.20231103.pdf>
- Snyder, C. R. (1999). *Coping: The psychology of what works*. Clarendon Press.
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., De Pablo, G. S., Shin, J. I., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2021). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, 27(1), 281–295. <https://doi.org/10.1038/s41380-021-01161-7>
- Soman, S., Bhat, S. M., Latha, K. S., & Praharaj, S. K. (2016). Gender Differences in Perceived Social Support and Stressful Life Events in Depressed Patients. *East Asian*

Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents

archives of psychiatry : official journal of the Hong Kong College of Psychiatrists = Dong Ya jing shen ke xue zhi : Xianggang jing shen ke yi xue yuan qi kan, 26(1), 22–29. <https://pubmed.ncbi.nlm.nih.gov/27086757/>

- Ullah, M. S., Akhter, S., Aziz, M. A., & Islam, M. (2023). Social support: mediating the emotional intelligence-academic stress link. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1218636>
- Viner, R. M., Allen, N. B., & Patton, G. C. (2017). Puberty, developmental processes, and health interventions. In *The World Bank eBooks* (pp. 107–118). https://doi.org/10.1596/978-1-4648-0423-6_ch9
- Whitney, C. (2010). Social supports among college students and measures of alcohol use, perceived stress, satisfaction with life, emotional intelligence, and coping. *The Journal of Student Wellbeing*, 4(1), 49–67. <https://doi.org/10.21913/jsw.v4i1.588>
- Yarcheski, A., & Mahon, N. E. (1999). The Moderator-Mediator Role of Social Support in Early Adolescents. *Western Journal of Nursing Research*, 21(5), 685–698. <https://doi.org/10.1177/01939459922044126>
- Zhang, B., Yan, X., Zhao, F., & Yuan, F. (2014). The relationship between perceived stress and adolescent depression: the roles of social support and gender. *Social Indicators Research*, 123(2), 501–518. <https://doi.org/10.1007/s11205-014-0739-y>
- Zhang, L., Roslan, S., Zaremohzzabieh, Z., Jiang, Y., Wu, S., & Chen, Y. (2022). Perceived Stress, Social Support, Emotional Intelligence, and Post-Stress Growth among Chinese Left-Behind Children: A Moderated Mediation Model. *International Journal of Environmental Research and Public Health*, 19(3), 1851. <https://doi.org/10.3390/ijerph19031851>
- Zhao, J., Cai, D., Yang, C., Shields, J., Xu, Z., & Wang, C. (2019). Trait emotional intelligence and young adolescents' positive and negative affect: the mediating roles of personal resilience, social support, and prosocial behavior. *Child & Youth Care Forum*, 49(3), 431–448. <https://doi.org/10.1007/s10566-019-09536-2>

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Da Costa, E.L. & Jadhav, S.G. (2025). Social Support Moderates the Effect of Perceived Stress on Emotional Intelligence of Adolescents. *International Journal of Indian Psychology*, 13(3), 4587-4601. DIP:18.01.421.20251303, DOI:10.25215/1303.421