

The Effectiveness of Assertiveness Skills Training on Emotional Self-Awareness and Interpersonal Difficulties among Male High School Students

Mehdi. Arastehfard¹, Rajabali. Mohammadzadeh^{2*}, Zahra. Asnafy¹

¹ Master of Educational Psychology, Department of Psychology, Farvardin Institute of Higher Education, Ghaemshahr, Iran

² Assistant Professor, Department of Psychology, Payame Noor University, Tehran, Iran

* Corresponding author email address: r.mohammadzadeh@pnu.ac.ir

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ABSTRACT

The present study was conducted to investigate the effectiveness of assertiveness skills training on emotional self-awareness and interpersonal difficulties among male high school students in Babol County. This study employed a quasi-experimental design using a pretest-posttest control group framework. The statistical population consisted of male students enrolled in the second cycle of secondary education (high school) in Babol County. A total of 40 students were randomly assigned to either an experimental group ($n = 20$) or a control group ($n = 20$). Participants completed the Emotional Self-Awareness Questionnaire developed by Grant et al. and the Interpersonal Difficulties Questionnaire developed by Engels (2005). The experimental group received assertiveness skills training, while the control group received no intervention. At the end of the intervention, both groups completed the questionnaires again as a posttest measure. The data were analyzed using multivariate and univariate analyses of covariance (MANCOVA and ANCOVA). The findings indicated that assertiveness skills training had a statistically significant effect on both emotional self-awareness and interpersonal difficulties. Based on the eta-squared values, the strongest effect was observed for interpersonal difficulties, accounting for approximately 58% of the variance, followed by emotional self-awareness, accounting for approximately 44% of the variance. The results suggest that assertiveness skills training increased emotional self-awareness and reduced interpersonal difficulties among male high school students in Babol County.

Keywords: Assertiveness Skills, Interpersonal Difficulties, Self-Awareness, Students.

1. Introduction

Adolescence is a critical developmental period characterized by substantial cognitive, emotional, social, and behavioral changes. During this stage,

individuals encounter numerous challenges associated with identity formation, emotional adjustment, peer relationships, and academic demands. Successful navigation of these developmental tasks requires the acquisition of psychological competencies that facilitate emotional

understanding, adaptive social functioning, and effective interpersonal communication. Among these competencies, emotional self-awareness and interpersonal functioning have emerged as essential determinants of psychological well-being, academic success, and social adjustment. Deficits in these areas may contribute to emotional distress, maladaptive behaviors, and difficulties in establishing and maintaining healthy relationships (Prima et al., 2026; Zong & Yang, 2025).

Emotional self-awareness refers to an individual's ability to recognize, understand, evaluate, and accurately interpret personal emotional states and their influence on thoughts and behaviors. It is considered one of the foundational components of emotional intelligence and serves as a prerequisite for effective emotion regulation, decision-making, and social adaptation. Individuals with high emotional self-awareness are better able to identify their feelings, understand the causes of emotional experiences, and use emotional information constructively when responding to environmental challenges. Research has consistently demonstrated that emotional self-awareness contributes positively to psychological adjustment, academic achievement, social competence, and overall well-being (Salehi, 2022; Shamsizadeh et al., 2022).

Recent studies have emphasized the growing importance of emotional competencies in educational settings. As educational systems increasingly recognize the significance of social and emotional learning, emotional self-awareness has become a central target of interventions aimed at improving students' psychological and academic outcomes. For example, AI-enhanced social-emotional learning frameworks have been shown to improve students' emotional well-being, engagement, and social functioning by fostering greater awareness and management of emotions (Zong & Yang, 2025). Similarly, investigations of elementary and secondary school students have demonstrated that emotional and social learning experiences contribute substantially to motivation, academic engagement, and psychosocial adjustment (Prima et al., 2026).

The importance of emotional self-awareness extends beyond academic functioning. A growing body of evidence indicates that emotional awareness plays a significant role in the development and maintenance of adaptive emotion regulation strategies. Effective emotion regulation enables individuals to manage emotional experiences appropriately and reduce vulnerability to psychological difficulties. Studies have reported significant associations between

emotional self-awareness, resilience, cognitive emotion regulation, and mental health outcomes among adolescents and young adults (Wang, 2026; Zhu et al., 2025). Likewise, difficulties in understanding and managing emotions have been linked to a variety of psychological and behavioral problems, including anxiety, substance use, interpersonal conflicts, and emotional dysregulation (Lawlor et al., 2021; Margherio et al., 2020).

Another important psychological construct during adolescence is interpersonal difficulties. Interpersonal difficulties refer to persistent challenges individuals experience in social interactions, communication, relationship formation, emotional expression, and conflict resolution. These difficulties may manifest in various contexts, including peer relationships, family interactions, classroom participation, and broader social environments. Adolescents experiencing interpersonal difficulties often report greater loneliness, social anxiety, lower self-esteem, and poorer psychological adjustment compared to their peers. Since adolescence is a period characterized by increasing reliance on peer relationships and social acceptance, interpersonal functioning becomes a critical factor influencing developmental outcomes (Bartholomew et al., 2019; Norberg et al., 2020).

Research has highlighted the detrimental consequences of interpersonal difficulties across multiple domains of functioning. Individuals who struggle with social communication and relationship management are more likely to experience emotional distress, academic difficulties, and psychological maladjustment. Aftab demonstrated that interpersonal difficulties play a mediating role in the relationship between experiential avoidance and symptoms of anxiety and depression, suggesting that impaired interpersonal functioning may exacerbate emotional vulnerability (Aftab, 2016). Similarly, studies have shown that elevated interpersonal difficulties are associated with maladaptive personality characteristics, impaired social adjustment, and increased risk for various psychological disorders (Bartholomew et al., 2019; Norberg et al., 2020).

Given the importance of emotional self-awareness and interpersonal functioning, identifying effective interventions that can simultaneously improve both constructs is a priority for researchers and educators. One intervention that has received considerable attention is assertiveness skills training. Assertiveness refers to the ability to express thoughts, feelings, beliefs, and needs directly, honestly, and respectfully while simultaneously respecting the rights of

others. Assertive individuals are capable of communicating effectively, setting boundaries, expressing disagreement appropriately, and managing interpersonal interactions confidently. Assertiveness is considered a core life skill that promotes psychological well-being, social competence, and healthy interpersonal relationships (Mousavizadeh, 2017).

Assertiveness occupies an intermediate position between passive and aggressive communication styles. Passive individuals often suppress their emotions and opinions to avoid conflict, whereas aggressive individuals may disregard the rights and feelings of others in pursuit of their own goals. Assertive communication, by contrast, enables individuals to advocate for themselves while maintaining mutual respect and positive social interactions. Through assertive behaviors, adolescents can improve self-expression, strengthen self-confidence, and develop healthier relationships with peers, teachers, and family members (Mousavizadeh, 2017; Smithe, 2015).

Several theoretical perspectives support the potential effectiveness of assertiveness training for improving emotional and interpersonal functioning. Social learning theory suggests that communication behaviors can be acquired and strengthened through observation, modeling, rehearsal, and reinforcement. Cognitive-behavioral approaches further propose that modifying maladaptive beliefs and behavioral patterns can enhance social competence and emotional regulation. Assertiveness training programs typically incorporate role-playing, behavioral rehearsal, feedback, cognitive restructuring, and problem-solving exercises designed to improve communication effectiveness and interpersonal confidence. Through repeated practice, individuals learn to identify their emotions more accurately and communicate them constructively, thereby enhancing both emotional self-awareness and interpersonal functioning (Haroon Rashidi & Abdehpour Sabzeghabaei, 2020; Nazarali et al., 2020).

Empirical evidence supports the effectiveness of assertiveness interventions in educational settings. Smithe reported that life skills training significantly increased assertive behavior among female students, highlighting the role of communication-based interventions in promoting adaptive social behaviors (Smithe, 2015). Haroon Rashidi and Abdehpour Sabzeghabaei found that problem-solving skills training effectively improved assertiveness and reduced shyness among students with learning disorders, suggesting that interpersonal competencies can be enhanced through structured educational interventions (Haroon Rashidi & Abdehpour Sabzeghabaei, 2020). Similarly,

Nazarali and colleagues demonstrated that assertiveness training delivered through group counseling significantly improved students' social skills, supporting the utility of assertiveness-based approaches for strengthening interpersonal competence (Nazarali et al., 2020).

Research has also demonstrated broader psychological benefits associated with assertiveness skills. Mohammad Hosseini reported that assertiveness training significantly improved mental health and self-efficacy, indicating that assertiveness contributes not only to interpersonal functioning but also to positive psychological adjustment (Mohammad Hosseini, 2023). These findings are consistent with contemporary research suggesting that self-efficacy and emotional competencies play important roles in adaptive functioning across educational and social contexts (Wang, 2026). Enhanced self-efficacy may increase adolescents' willingness to engage in social situations, communicate effectively, and manage interpersonal challenges constructively.

The relevance of assertiveness training has become even more apparent in contemporary social environments characterized by increasing digital communication and social media engagement. Modern adolescents frequently navigate complex social interactions both online and offline, creating additional demands on emotional awareness and interpersonal competence. Excessive social media engagement and fear of missing out have been linked to emotional distress and social challenges among young people, highlighting the need for interventions that strengthen emotional regulation and interpersonal skills (Tandon et al., 2021). Assertiveness training may help adolescents develop healthier communication patterns and greater confidence in managing social relationships within these evolving contexts.

Furthermore, emerging technological developments have underscored the importance of socio-emotional competencies in youth populations. Recent investigations examining artificial intelligence applications in educational and psychological support systems have emphasized that emotional awareness, self-regulation, and interpersonal competence remain central determinants of student well-being despite technological advances (Deep et al., 2026). Technology-based interventions may facilitate learning and support, but fundamental psychological skills such as emotional self-awareness and assertive communication continue to play indispensable roles in healthy development and social adaptation.

The relationship between emotional self-awareness and interpersonal functioning is particularly noteworthy. Adolescents who possess greater awareness of their emotions are often better equipped to communicate effectively, understand social cues, and navigate interpersonal situations successfully. Conversely, deficits in emotional awareness may contribute to misunderstandings, ineffective communication, and interpersonal conflict. Studies have demonstrated significant associations between emotional self-awareness, social well-being, and relationship quality among adolescents (Shamsizadeh et al., 2022). Consequently, interventions that improve emotional self-awareness may also contribute to reductions in interpersonal difficulties.

Although previous research has independently examined emotional self-awareness, interpersonal difficulties, and assertiveness skills, relatively few studies have investigated the simultaneous effects of assertiveness training on both emotional self-awareness and interpersonal difficulties among male high school students. Given the developmental significance of adolescence, the increasing complexity of social interactions, and the documented benefits of assertiveness skills, further investigation is warranted. Understanding whether assertiveness training can simultaneously enhance emotional self-awareness and reduce interpersonal difficulties may provide valuable evidence for educational psychologists, counselors, and school-based mental health professionals seeking effective interventions for adolescent populations.

Therefore, the present study aimed to investigate the effectiveness of assertiveness skills training on emotional self-awareness and interpersonal difficulties among male high school students in Babol County.

2. Methods and Materials

2.1. Study Design and Participants

This applied research employed a quasi-experimental design with a pretest–posttest control group structure. The study population consisted of male students enrolled in the second cycle of secondary education (high school) in Babol County during the 2023–2024 academic year. Following the initial screening process and considering the study inclusion criteria, 40 male students were selected through purposive sampling. The participants were then randomly assigned to either an experimental group ($n = 20$) or a control group ($n = 20$). After selection, participants were allocated to the study groups using random assignment procedures to

minimize selection bias and ensure internal validity. Efforts were made to maintain homogeneity between the two groups regarding demographic characteristics such as age, gender, and general physical characteristics. The experimental group participated in an assertiveness skills training program, whereas the control group received no intervention during the study period. Both groups completed the study measures before and after the intervention.

2.2. Measures

Emotional self-awareness was assessed using the Emotional Self-Awareness Questionnaire developed by Grant and colleagues. The instrument consists of 33 items designed to evaluate individuals' awareness, recognition, understanding, and management of their emotional experiences. Responses are recorded on a five-point Likert scale ranging from "Never" to "Very Much," with higher scores indicating greater emotional self-awareness. The questionnaire comprises five subscales, including Recognition (6 items), Identification (5 items), Transformation/Expression (7 items), Environmental Orientation (10 items), and Problem Solving (5 items). Recognition assesses the ability to identify one's current emotional state, whereas Identification measures the capacity to describe emotions accurately. The Transformation subscale evaluates the ability to express emotions effectively, Environmental Orientation examines the tendency to analyze personal experiences and emotional reactions, and Problem Solving assesses the use of emotional information in decision-making processes. The validity of the instrument has been confirmed by expert review and previous psychometric studies. Reliability analyses have demonstrated satisfactory internal consistency, with a Cronbach's alpha coefficient of 0.79 reported for the overall scale.

Interpersonal difficulties were measured using the Questionnaire of Interpersonal Difficulties in Adolescence (QIDA), developed by Engels, Hidalgo, and Menéndez in 2005 and subsequently standardized for the Iranian population by Shokri and colleagues. The instrument is a 29-item self-report measure designed to assess difficulties encountered in various interpersonal situations. Participants rate their level of agreement with each statement on a five-point Likert scale. The original questionnaire includes five dimensions: Assertiveness, Public Speaking, Family Relationships, Close Friendships, and Interpersonal Responsibility/Self-Control. Due to cultural considerations

and the objectives of the present study, only four dimensions—Assertiveness, Public Speaking, Family Relationships, and Close Friendships—were utilized. Higher scores on each subscale indicate greater interpersonal difficulties in the corresponding domain. Previous psychometric evaluations have reported acceptable reliability coefficients, with Cronbach's alpha values of 0.80 for Assertiveness, 0.73 for Public Speaking, 0.66 for Family Relationships, and 0.56 for Close Friendships. The overall scale has demonstrated strong internal consistency, with a Cronbach's alpha coefficient of 0.88. Evidence from previous studies supports the validity and reliability of the questionnaire for assessing interpersonal difficulties among adolescents.

2.3. Intervention

The participants in the experimental group received a structured assertiveness skills training program designed to enhance effective communication, emotional expression, self-confidence, and interpersonal competence. The intervention was conducted in a group format and included sessions focused on understanding personal rights, recognizing passive, aggressive, and assertive communication styles, expressing opinions and emotions appropriately, learning refusal skills, managing criticism, handling interpersonal conflicts, improving self-expression, and developing effective social interaction strategies. Through role-playing exercises, behavioral rehearsal, group discussions, feedback, and practical assignments, participants were encouraged to practice assertive behaviors in real-life situations. The training emphasized respect for oneself and others, emotional regulation during social interactions, and the development of healthy interpersonal relationships. The control group did not receive any

psychological training during the intervention period. Following completion of the program, both groups participated in the posttest assessment.

2.4. Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including means and standard deviations, were calculated to summarize participant characteristics and study variables. Prior to hypothesis testing, the assumptions underlying covariance analysis, including normality of distribution, homogeneity of variances, and homogeneity of regression slopes, were evaluated. To examine the overall effect of assertiveness skills training on emotional self-awareness and interpersonal difficulties simultaneously, multivariate analysis of covariance (MANCOVA) was employed while controlling for pretest scores. Subsequently, univariate analyses of covariance (ANCOVA) were conducted to determine the specific effects of the intervention on each dependent variable. Statistical significance was evaluated at the 0.05 level.

3. Findings and Results

A total of 40 male high school students participated in the study and completed all stages of the research. The participants were randomly assigned to an experimental group ($n = 20$) and a control group ($n = 20$). All participants were enrolled in the second cycle of secondary education in Babol County during the 2023–2024 academic year. The groups were matched as closely as possible in terms of demographic characteristics, including age and educational level, and no participant withdrew from the study during the intervention period.

Table 1

Descriptive Statistics for Emotional Self-Awareness and Interpersonal Difficulties in the Experimental Group

Variable	Time	Minimum	Maximum	Mean	SD
Emotional Self-Awareness	Pretest	75	98	87.50	7.77
Emotional Self-Awareness	Posttest	97	124	107.55	6.97
Interpersonal Difficulties	Pretest	92	117	104.65	5.65
Interpersonal Difficulties	Posttest	78	105	89.75	7.52

The descriptive findings presented in Table 1 indicate notable changes in both study variables following the intervention. The mean score of emotional self-awareness in the experimental group increased from 87.50 ($SD = 7.77$) at

pretest to 107.55 ($SD = 6.97$) at posttest, suggesting a substantial improvement in students' awareness and understanding of their emotional experiences. In contrast, the mean score of interpersonal difficulties decreased from

104.65 (SD = 5.65) at pretest to 89.75 (SD = 7.52) at posttest, indicating a reduction in interpersonal problems after participation in the assertiveness skills training program.

Before conducting the main analyses, the assumptions of multivariate analysis of covariance were examined. The Shapiro–Wilk test was used to assess the normality of the distribution of the dependent variables. Results showed that

all significance values exceeded 0.05, indicating that the distributions of emotional self-awareness and interpersonal difficulties did not significantly deviate from normality. Therefore, the assumption of normality was met, and the data were considered appropriate for subsequent parametric analyses, including MANCOVA and ANCOVA.

Table 2

Multivariate and Univariate Analysis of Covariance Results for the Effects of Assertiveness Skills Training

Analysis	Variable	F	df	p	Partial η^2
Pillai's Trace	Combined Variables	39.782	2, 35	< .001	0.694
ANCOVA	Emotional Self-Awareness	27.950	1, 36	< .001	0.437
ANCOVA	Interpersonal Difficulties	49.063	1, 36	< .001	0.577

The multivariate analysis revealed a statistically significant overall effect of the intervention on the combined dependent variables, Pillai's Trace = 0.694, $F(2, 35) = 39.782$, $p < .001$, indicating that assertiveness skills training significantly influenced students' emotional self-awareness and interpersonal difficulties. Follow-up univariate analyses demonstrated that the intervention had a significant positive effect on emotional self-awareness, $F(1, 36) = 27.950$, $p < .001$, $\eta^2 = 0.437$, and a significant negative effect on

interpersonal difficulties, $F(1, 36) = 49.063$, $p < .001$, $\eta^2 = 0.577$. The effect size estimates indicated that approximately 43.7% of the variance in emotional self-awareness and 57.7% of the variance in interpersonal difficulties were attributable to the intervention. These findings support the main hypothesis of the study and demonstrate that assertiveness skills training effectively enhanced emotional self-awareness while reducing interpersonal difficulties among male high school students.

Table 3

Bonferroni Post Hoc Comparisons Between Experimental and Control Groups

Variable	Group Comparison	Mean Difference	p
Emotional Self-Awareness	Experimental vs. Control	16.071	< .001
Interpersonal Difficulties	Experimental vs. Control	-16.971	< .001

The Bonferroni post hoc comparisons presented in Table 3 demonstrated significant differences between the experimental and control groups on both outcome variables following the intervention. For emotional self-awareness, the experimental group obtained significantly higher adjusted mean scores than the control group (Mean Difference = 16.071, $p < .001$). Regarding interpersonal difficulties, the experimental group reported significantly lower adjusted mean scores compared with the control group (Mean Difference = -16.971, $p < .001$). These findings indicate that students who participated in the assertiveness skills training program exhibited greater emotional self-awareness and fewer interpersonal difficulties than those who did not receive the intervention. Collectively, the results provide strong evidence for the effectiveness of assertiveness skills training in promoting emotional

competence and improving interpersonal functioning among male high school students.

4. Discussion

The present study aimed to investigate the effectiveness of assertiveness skills training on emotional self-awareness and interpersonal difficulties among male high school students in Babol County. The findings demonstrated that assertiveness skills training significantly increased emotional self-awareness and significantly reduced interpersonal difficulties among students in the experimental group compared with the control group. The multivariate analysis revealed a significant overall effect of the intervention on the dependent variables, while the univariate analyses indicated that the intervention accounted for approximately 43.7% of the variance in emotional self-

awareness and 57.7% of the variance in interpersonal difficulties. These findings support the main hypothesis of the study and suggest that assertiveness skills training is an effective intervention for enhancing emotional functioning and improving interpersonal relationships among adolescents.

One of the major findings of the present study was the significant increase in emotional self-awareness among students who participated in the assertiveness training program. Emotional self-awareness is a fundamental psychological competency that enables individuals to identify, understand, evaluate, and appropriately express their emotions. Adolescence is often characterized by emotional fluctuations and increased social sensitivity, making the development of emotional awareness particularly important during this developmental period. The observed improvement in emotional self-awareness suggests that assertiveness training provides adolescents with opportunities to explore their emotional experiences, recognize their feelings, and communicate them more effectively.

The effectiveness of assertiveness training in enhancing emotional self-awareness can be explained through several psychological mechanisms. Assertiveness training encourages individuals to pay attention to their internal emotional states before expressing their thoughts and feelings. During training sessions, participants learn to distinguish between different emotions, identify personal needs, and communicate these experiences clearly and respectfully. Such processes naturally require increased reflection on emotional experiences and contribute to greater emotional awareness. As adolescents become more skilled at recognizing and articulating their emotions, they develop a stronger understanding of their emotional responses and their influence on behavior.

The findings regarding emotional self-awareness are consistent with previous research emphasizing the importance of emotional competencies in educational settings. Shamsizadeh et al. reported significant relationships between emotional self-awareness, social well-being, and the quality of interpersonal relationships among students, suggesting that greater emotional awareness contributes positively to psychosocial adjustment (Shamsizadeh et al., 2022). Similarly, Salehi demonstrated that self-awareness skills training improved positive emotion regulation among adolescent students, indicating that interventions focused on self-understanding can strengthen emotional functioning (Salehi, 2022). The current

findings extend this body of evidence by showing that assertiveness skills training, although primarily designed to improve communication behaviors, can also facilitate significant improvements in emotional self-awareness.

The present results are also supported by contemporary research examining emotion regulation and emotional functioning. Wang found that self-efficacy and healthy behavioral patterns contribute to improved emotion regulation among university students (Wang, 2026). Likewise, Zhu and colleagues reported that cognitive emotion regulation plays a mediating role in psychological adjustment and resilience among students (Zhu et al., 2025). Since assertiveness training promotes self-confidence, effective communication, and emotional expression, it may indirectly strengthen emotion regulation capacities, thereby enhancing emotional self-awareness. Furthermore, studies examining emotional difficulties have consistently shown that deficits in emotional awareness are associated with maladaptive outcomes and psychological distress (Lawlor et al., 2021; Margherio et al., 2020). Consequently, improvements in emotional self-awareness observed in the present study may represent an important protective factor for adolescents' mental health.

Another important finding of the present study was the significant reduction in interpersonal difficulties among students who received assertiveness skills training. Interpersonal difficulties involve challenges in communication, relationship formation, social interaction, self-expression, and conflict management. Adolescence is a period during which peer acceptance, social belonging, and interpersonal competence become increasingly important. Therefore, interventions that reduce interpersonal difficulties may have far-reaching implications for students' social adjustment and psychological well-being.

The reduction in interpersonal difficulties observed in the present study can be understood through the core objectives of assertiveness training. Assertiveness skills teach individuals how to communicate their thoughts and feelings openly while respecting the rights and perspectives of others. Through role-playing, behavioral rehearsal, feedback, and social practice, students learn to express disagreement appropriately, establish personal boundaries, make requests confidently, and respond effectively to interpersonal challenges. These skills directly address many of the factors that contribute to interpersonal difficulties, including communication anxiety, social avoidance, fear of rejection, and ineffective conflict management.

The current findings are consistent with previous studies emphasizing the effectiveness of assertiveness-based interventions in improving social functioning. Smithe found that life skills training significantly increased assertive behavior among students, demonstrating that communication skills can be strengthened through structured educational programs (Smithe, 2015). Similarly, Nazarali and colleagues reported that assertiveness training significantly enhanced students' social skills and interpersonal competence (Nazarali et al., 2020). Haroon Rashidi and Abdehpour Sabzeghabaei further demonstrated that skills-based interventions improved assertiveness while reducing shyness among students, supporting the notion that assertiveness training can reduce barriers to effective social interaction (Haroon Rashidi & Abdehpour Sabzeghabaei, 2020). The findings of the present study align closely with these investigations and provide additional evidence that assertiveness training contributes to more adaptive interpersonal functioning among adolescents.

The substantial effect size observed for interpersonal difficulties suggests that assertiveness skills training may be particularly beneficial for improving social adjustment. One possible explanation is that interpersonal problems often arise from deficits in communication rather than from a lack of social opportunities. Adolescents who struggle to express themselves effectively may experience misunderstandings, social anxiety, peer rejection, or conflict. Assertiveness training directly targets these communication deficits by teaching practical skills that can be immediately applied in everyday interactions. As students become more confident and competent in their social exchanges, interpersonal difficulties naturally decrease.

The findings are also consistent with research highlighting the importance of interpersonal functioning for psychological adjustment. Aftab demonstrated that interpersonal difficulties mediate the relationship between experiential avoidance and symptoms of depression and anxiety, suggesting that interpersonal problems contribute significantly to emotional distress (Aftab, 2016). Similarly, Norberg and colleagues found that elevated interpersonal problems distinguish individuals experiencing greater psychological and behavioral difficulties (Norberg et al., 2020). Bartholomew and colleagues likewise reported associations between interpersonal difficulties and maladaptive personality characteristics (Bartholomew et al., 2019). The reduction of interpersonal difficulties observed in the present study may therefore contribute not only to

improved social functioning but also to broader psychological well-being.

Another noteworthy aspect of the findings is the interconnected relationship between emotional self-awareness and interpersonal functioning. Emotional self-awareness and interpersonal competence are not independent constructs; rather, they influence and reinforce one another. Individuals who better understand their emotions are generally more capable of communicating effectively, interpreting social situations accurately, and responding appropriately to interpersonal challenges. Conversely, successful interpersonal interactions provide opportunities for emotional expression and self-reflection, which further strengthen emotional awareness. The simultaneous improvement of both variables in the present study supports theoretical models emphasizing the reciprocal relationship between emotional and social competencies.

The findings can also be interpreted within the framework of contemporary social-emotional learning theories. Social-emotional learning programs seek to develop self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Recent studies have shown that interventions emphasizing emotional and social learning significantly improve student engagement, emotional well-being, and adaptive functioning (Prima et al., 2026; Zong & Yang, 2025). Assertiveness training shares many characteristics with social-emotional learning interventions, including emotional recognition, communication skill development, empathy, and relationship management. Therefore, the positive outcomes observed in the present study are consistent with broader evidence supporting social-emotional skill development among adolescents.

The findings also have relevance within the context of contemporary technological and social challenges facing adolescents. Modern students increasingly navigate digital environments characterized by social media interactions, online communication, and constant social comparison. Research has suggested that these environments may contribute to emotional challenges and social stressors among young people (Tandon et al., 2021). At the same time, emerging technologies designed to support student well-being continue to emphasize the importance of emotional and interpersonal competencies as foundational developmental skills (Deep et al., 2026). Assertiveness training may therefore serve as an important preventive intervention that equips adolescents with the skills necessary

to navigate both traditional and digital social environments effectively.

Furthermore, the positive effects of assertiveness training on emotional self-awareness and interpersonal difficulties may partially be explained by improvements in self-efficacy. Previous research has shown that assertiveness interventions contribute to greater confidence and psychological adjustment (Mohammad Hosseini, 2023). As students become more confident in their ability to communicate effectively and manage social situations, they may become more willing to engage in interpersonal interactions, express emotions openly, and address social challenges constructively. This increased self-efficacy may create a positive cycle in which successful social experiences reinforce emotional awareness and interpersonal competence.

5. Conclusion

Overall, the findings of the present study provide strong evidence that assertiveness skills training is an effective intervention for promoting emotional self-awareness and reducing interpersonal difficulties among male high school students. The results are consistent with theoretical perspectives emphasizing the importance of communication skills, emotional competence, and social functioning during adolescence and align with previous empirical studies demonstrating the benefits of assertiveness and social-emotional interventions across educational settings.

Several limitations should be considered when interpreting the findings of the present study. First, the study was conducted exclusively among male high school students from a single geographical region, which may limit the generalizability of the findings to female students, other age groups, or students from different cultural and educational contexts. Second, the sample size was relatively small, which may have reduced the statistical power and external validity of the findings. Third, all measures were based on self-report questionnaires, making the results susceptible to response biases such as social desirability and self-perception errors. Finally, the study assessed outcomes only immediately after the intervention and did not include a long-term follow-up period to determine the stability of the observed effects over time.

Future studies should replicate the present research with larger and more diverse samples, including students from different educational levels, cultural backgrounds, and geographical regions. Researchers may also examine the

effectiveness of assertiveness training among female students and compare gender differences in intervention outcomes. Longitudinal investigations incorporating multiple follow-up assessments would provide valuable information regarding the durability of treatment effects. Additionally, future research could explore potential mediating and moderating variables, such as self-esteem, resilience, social support, emotion regulation, and self-efficacy, to better understand the mechanisms through which assertiveness training influences emotional and interpersonal functioning.

The findings suggest that assertiveness skills training can be incorporated into school counseling programs, life-skills education courses, and preventive mental health initiatives for adolescents. School counselors, psychologists, and educators may utilize assertiveness-based interventions to strengthen students' emotional awareness, communication abilities, and interpersonal relationships. Educational policymakers should consider integrating structured assertiveness and social-emotional learning programs into secondary school curricula to promote students' psychosocial development. Workshops and training sessions for parents and teachers may also help create supportive environments that encourage healthy emotional expression, effective communication, and positive interpersonal interactions among adolescents.

Authors' Contributions

Authors equally contributed to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

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

References

- Aftab, R. (2016). The Mediating Role of Interpersonal Difficulties in the Relationship between Experiential Avoidance and Depression and Anxiety. *Applied Psychology Quarterly*, 4(40), 523-542.
- Bartholomew, M. E., Smith, B., & Johnson, S. L. (2019). Explaining Interpersonal Difficulty via Implicit and Explicit Personality Correlates of Mania Risk. *Journal of affective disorders*, 246, 248-251. <https://doi.org/10.1016/j.jad.2018.12.036>
- Deep, P. D., Ghosh, N., & Natoli, A. P. (2026). Artificial Intelligence for Supporting College Students with Attention-Deficit/Hyperactivity Disorder: Cognitive, Emotional, and Ethical Perspectives. *International Journal on Social and Education Sciences*, 8(1), 1-17. <https://doi.org/10.46328/ijonses.5915>
- Haroon Rashidi, H., & Abdehpour Sabzeghabaei, E. (2020). The Effectiveness of Problem-Solving Skills Training on Assertiveness and Shyness in Students with Learning Disorders. *Journal of Learning Disabilities*, 1(4), 133-152.
- Lawlor, C., Vitoratou, S., Hepworth, C., & Jolley, S. (2021). Self-Reported Emotion Regulation Difficulties in Psychosis: Psychometric Properties of the Difficulties in Emotion Regulation Scale. *Journal of Clinical Psychology*, 77(10), 2323-2340. <https://doi.org/10.1002/jclp.23164>
- Margherio, S. M., Brickner, M. A., Evans, S. W., Sarno Owens, J., DuPaul, G. J., & Allan, N. P. (2020). The Role of Emotion Regulation in Alcohol Use among Adolescents with Attention-Deficit/Hyperactivity Disorder. *Psychology of Addictive Behaviors*, 34(7), 772-782. <https://doi.org/10.1037/adb0000582>
- Mohammad Hosseini, M. (2023). Examining the Effectiveness of Assertiveness Skills on Mental Health and Self-Efficacy. Third International Conference on Health, Educational Sciences, and Psychology,
- Mousavizadeh. (2017). *Psychology of Assertiveness: The Key to Success through Assertiveness*. Jahan Danesh.
- Nazarali, S., Navabinejad, S., & Ahghar, G. (2020). Examining and Comparing the Effect of Assertiveness Training through Group Counseling on Increasing Social Skills among Students of Shahid Beheshti University of Medical Sciences. Seventh International Conference on Psychology, Counseling, and Educational Sciences,
- Norberg, M. M., Kwok, C., Crone, C., David, J., Kakar, V., & Grisham, J. R. (2020). Greater Interpersonal Problems Differentiate Those Who Excessively Acquire and Save from Those Who Only Excessively Acquire Possessions. *Journal of Obsessive-Compulsive and Related Disorders*, 27, 100571. <https://doi.org/10.1016/j.jocrd.2020.100571>
- Prima, A. P. T., Asbani, A., Fibriyanti, D., Hartati, M. S., & Fitriani, A. (2026). Analysis of the Learning Motivation of Students at SD Integral Hidayatullah Putri Hijau Towards Emotional and Social Learning. *Journal Transnational Universal Studies*, 4(1), 1-7. <https://doi.org/10.58631/jtus.v4i1.216>
- Salehi, H. (2022). The Effectiveness of Self-Awareness Skills Training on Critical Thinking and Positive Emotion Regulation in Male Lower-Secondary Students in Chadegan. *Philosophy Approach in Schools and Organizations*, 1(2), 1-14.
- Shamsizadeh, E., Eftekharsaadi, Z., Jayervand, H., Bakhtiarpour, S., & Makvandi, B. (2022). Examining Social Well-Being and Emotional Self-Awareness Based on Quality of Relationship with Parents through Smartphone Addiction in Gifted Students. *Journal of Pediatric Nursing*, 8(3), 16-26.
- Smithe, P. (2015). The Effect of Life Skills Training on Increasing Assertive Behavior in Third-Grade Female Students. *Journal of Clinical Psychology*, 53, 56-64.
- Tandon, A., Dhir, A., Almgren, I., AlNemer, G. N., & Mäntymäki, M. (2021). Fear of Missing Out (FoMO) among Social Media Users: A Systematic Literature Review, Synthesis and Framework for Future Research. *Internet Research*, 31(3), 782-821. <https://doi.org/10.1108/INTR-11-2019-0455>
- Wang, G. (2026). How Exercise Adherence Affects Emotion Regulation in Chinese College Students: The Chain Mediating Effect of Sleep Quality and Self-Efficacy. *PLoS One*, 21(1), e0338572. <https://doi.org/10.1371/journal.pone.0338572>
- Zhu, B., Gao, X., Zhou, M., & Wang, H. (2025). The Mediating Roles of Cognitive Emotion Regulation and Resilience in the Association Between Life Events and Sleep Quality Among Medical Students. *Frontiers in Psychiatry*, 16. <https://doi.org/10.3389/fpsy.2025.1466138>
- Zong, Y., & Yang, L. (2025). How AI -Enhanced Social-Emotional Learning Framework Transforms EFL Students' Engagement and Emotional Well-Being. *European Journal of Education*, 60(1). <https://doi.org/10.1111/ejed.12925>