

Extended Abstract



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Research paper

The Effectiveness of Empathy Skills Training on Reducing Aggression and Improving Peer Relationships in Female Junior High School Students with a History of Aggression

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Introduction

Adolescence is a sensitive developmental period characterized by biological, psychological, and social changes, which can contribute to emotional and behavioral problems ([Robinson et al., 2024](#); [Labbib et al., 2024](#)). One of the most significant of these problems is aggression, which may lead to academic decline, peer rejection, and delinquent behaviors ([Voulgaridou & Kokkinos, 2023](#); [Lee & Choi, 2025](#)). Global reports also indicate a concerning prevalence of violence and bullying among adolescents ([World Health Organization, 2025](#); [Ding et al., 2020](#)). Research shows that aggressive adolescents often exhibit weaknesses in socio-cognitive processing and empathy, which can result in hostile interpretations of social situations ([Swit & Harty, 2025](#); [Ribes-Inesta & Bandura, 2024](#)). Evidence suggests that enhancing empathy can improve peer relationships and reduce aggressive behaviors ([Romero et al., 2024](#); [Lee et al., 2025](#)). Empathy training, by increasing the ability to understand others' emotions and perspectives and facilitating effective interpersonal communication, plays a crucial role in reducing aggression, promoting positive interactions, and improving students' social relationships ([Soroush & Habibzadeh, 2025](#); [Davis, 1996](#)). Studies have demonstrated that training in cognitive and emotional dimensions of empathy strengthens mutual understanding, compassion, emotional regulation, and prosocial behaviors, thereby reducing aggression, bullying, and conflicts among students ([Bass-Sarmiento et al., 2020](#); [Shakeri et al., 2020](#)). Both domestic and international findings emphasize the protective role of empathy against maladaptive behaviors and its contribution to social adjustment ([Hajatpour, 2024](#); [Elmiloo et al., 2025](#); [Hikmat et al., 2024](#)). Considering the lack of regional studies and the

importance of cost-effective and efficient group interventions in schools, the present study aims to examine the effectiveness of empathy skills training in reducing aggression and improving peer relationships among Female junior high school students with a history of aggression.

Method

The method of this study was semi-experimental with pre-test and post-test and control group. Its statistical population included all female junior high school students in Astana Ashrafiyeh city in public schools and in the academic year 2024-2025. Initially, students exhibiting aggressive behavior were identified by school counselors and screened using the Buss and Perry Aggression Questionnaire. Following the initial screening, a total of 20 students who met the inclusion criteria were purposively selected. After obtaining informed consent, participants were randomly assigned to experimental and control groups, with 10 students in each group. Inclusion criteria included female gender, attending the junior high school in public schools, scoring above the mean on the aggression scale and below the mean on the peer relationship index, willingness to participate in the sessions, not receiving external counseling services, and no history of psychological disorders. Exclusion criteria included missing more than two intervention sessions, unwillingness to continue participation, and incomplete assessment measures. The instruments used were the Aggression Questionnaire ([Buss and Perry, 1992](#)) and the Index of Peer Relationships ([Hudson, 1992](#)). Empathy skills training, adapted from [Gholamrezaei et al. \(2018\)](#), was delivered to the experimental group in ten 90-minute sessions.

Results

Descriptive analyses indicated that the mean age of the experimental group was 14.26 ± 1.98 years, and that of the control group was 14.06 ± 2.15 years. Regarding grade level, the distribution of students across grades seven to nine was similar between the two groups, and the chi-square test indicated no significant difference in grade level between groups ($P > 0.05$). To examine the effectiveness of empathy skills training on peer relationships, a univariate analysis of covariance (ANCOVA) was conducted. The results showed that empathy training led to a significant improvement in peer relationships in the experimental group ($F = 45.242$, $P < 0.001$, $\eta^2 = 0.727$). The eta squared ($\eta^2 = 0.727$) and statistical power (0.999) indicate the high effectiveness of this intervention on the overall peer relationship scores in the experimental group. To investigate the effect of empathy training on dimensions of aggression (physical aggression, verbal aggression, anger, and hostility), a multivariate analysis of covariance (MANCOVA) was performed. The results indicated that empathy training significantly reduced physical aggression ($F = 125.483$, $\eta^2 = 0.900$), verbal aggression ($F = 126.846$, $\eta^2 = 0.901$), anger ($F = 45.187$, $\eta^2 = 0.763$), and hostility ($F = 83.082$, $\eta^2 = 0.856$) ($P < 0.001$). The eta squared ($\eta^2 = 0.901$) and statistical power (0.999) for verbal aggression, and eta squared ($\eta^2 = 0.900$) and statistical power (0.999) for physical aggression, indicate the high effectiveness of this intervention for the experimental group.

Discussion and Conclusion

The results of this study indicated that empathy skills training led to a reduction in aggression and an improvement in peer relationships among female students with a history of aggressive behavior. In explaining the effectiveness of empathy training in reducing aggression, it can be stated that it

enhances the understanding of others' emotions and perspectives, improves emotional regulation and adaptive behaviors, and plays a protective role against aggressive behaviors, serving as an effective tool for reducing hostility and fostering a more empathetic social environment ([Rieffe et al., 2016](#); [Frederick et al., 2020](#)). In explaining the second finding, empathy training, by increasing sensitivity and understanding of others' emotions, fosters more positive and supportive peer relationships, contributes to the formation of constructive interpersonal relationships, strengthens social interactions ([Shakeri et al., 2020](#); [Li et al., 2025](#)). Among the limitations of this study were the sample being limited to female students in a specific region and the absence of a follow-up period. Therefore, it is recommended that future research include both genders across different regions, incorporate follow-up assessments, and that educational institutions implement group workshops and interventions aimed at improving empathy skills to reduce aggression and enhance peer relationships.

Ethical Considerations

Ethical Code

This article is based on a Master's thesis in General Psychology at Rahbord-e Shomal Higher Education Institute and has been registered with the university's Graduate Studies Office..

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This study did not receive any financial support

Authors' Contributions

Seyed Omid Sotodeh Navroodi (Supervisor) and Fatemeh Pouragha Roudbardeh (Advisor): research process management, article editing, and revision; Elmira Pourhashmati Dargah: data collection, conducting trainings, statistical analysis, and preparation of the original manuscript.

Conflicts of Interest

The authors declare no conflict of interest in this study.

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