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Emotional Skills Training to Control Aggression and Increase Social Adaptation in Children with Educable Mental Retarded

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A B S T R A C T

Purpose: Children with educable mental retardation encounter difficulties in acquiring knowledge, social skills, and managing their feelings. This current research aims to instruct emotional skills to control aggression and enhance social adaptability in children with educable mental retardation.

Methods and Materials: The current research is an applied and quasi-experimental study that includes a pre-test, post-test, and a follow-up phase of three months with both a control and experimental group. The statistical population for this study was mentally retarded children aged nine to thirteen years' old who were attending special education centers during the summer and fall of 2023 in Tehran. The sample consisted of 32 individuals (16 in the experimental group and 16 in the control group) chosen through purposive sampling. Educational sessions lasting 60 minutes each were conducted twice a week, totaling seven sessions. The assessment tools used were the Child Aggression Scale (CAS) and the Rutter Child Behavior Questionnaire (RCBQ). Data analysis was performed using SPSS version 27 software, employing descriptive statistics (mean and standard deviation), repeated measures covariance analysis, Bonferroni post hoc test, and Kruskal-Wallis H test at a -value of 0.05.

Findings: According to the research results, the p-value for Between-Subjects Effects comparing the experimental and control groups regarding aggression and parental perspective on aggression was statistically significant ($p<0.001$). Similarly, the P-value for Within-Subjects Effects when comparing groups and time in the aggression variable was also found to be statistically significant ($p=0.018$). Additionally, the P-value for Between-Subjects Effects comparing the experimental and control groups regarding social incompatibility was not statistically significant ($p=0.350$).

Conclusion: According to the findings of the current study, emotional skills training helps decrease aggression in children with educable mentally retarded, and parental perspective on aggression also plays a role in reducing aggression levels in these children. Nevertheless, this program does not notably improve the children's social adaptation. The outcomes of this study could benefit teachers, special education professionals, parents of intellectually disabled children, mental health professionals, educational policymakers, and rehabilitation facilities.

Keywords: *Emotional Skills Training, Aggression, Social Adaptation, Educable Mentally Retarded Children.*

1. Introduction

Mental retardation is a condition characterized by below-average general intelligence. Children with educable mental retardation, who have an IQ ranging from 50 to 70, may have limitations in cognitive functioning and adaptive skills but can acquire academic, social, and vocational skills through special education and attain some level of independence in life (Keshavarz et al., 2024). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM), mental retardation is divided into four levels: mild, moderate, severe, and profound. Approximately 2% of individuals with mental retardation fall into the mild category, which is determined by the person's ability to adapt in various areas, not just their IQ scores (Hafezi, 2021). Research indicates that among children with mentally retarded, there are gender differences in the prevalence and nature of behavioral problems, with boys more likely to display aggressive behavior and girls more prone to exhibiting passive or withdrawn behavior (Khalifa, 2021). Another study suggests that creating a positive environment and engaging children with mentally retarded in activities appropriate to their abilities can help reduce feelings of anger and promote inner peace (Elsayed & Hassan, 2023). The behavioral and social challenges faced by children with mentally retarded stem from their interactions with others and the failure to meet expectations, resulting in issues like low self-esteem, difficulties in forming relationships, runaway behaviors, stealing, antisocial tendencies, and aggression (Jabbari et al., 2022).

Aggression is more common in children with mentally retarded as deliberate actions aimed at causing harm to themselves, others, or property. The intention to cause harm is crucial in defining aggression, and this behavior in such children may be correlated to emotional, social, and communication difficulties (Jabbary Daneshvar et al., 2022). According to a study, children with mentally retarded in segregated environments may show increased levels of behavioral problems like aggression or social withdrawal (Khalifa, 2021). Another study indicated that teenagers with mentally retarded usually display higher levels of aggression compared to their peers in non-segregated settings and may have limited awareness of the impact of their aggressive actions (Zaigraeva et al., ۲۰۲۱).

Mental retardation is defined by restrictions in intellectual functioning and adaptive behavior, such as cognitive, social, and practical skills in social settings with peers, which hinders the growth of motor, cognitive, and socioemotional skills and can impact an individual's ability to adapt socially and interact effectively with their surroundings (Daneshvar et al., 2023). Social adaptability, which involves behaviors that aid in adapting to various situations with minimal anxiety and achieving personal growth, can be challenging for children with mental retardation due to difficulties in processing social information and accurately assessing social situations (Mahfooz, 2024). Research has found that children with mental retardation encounter more obstacles in social interactions due to cognitive and behavioral limitations compared to their typically developing peers (Abdunazarov, 2022). Additionally, findings from a study revealed that increased perceived social support from parents and higher levels of parental education are correlated to enhanced social adaptability in children with educable mentally retarded (Sadeqi, 2021).

Children and teenagers with mentally retarded are more likely to experience emotional reactions and behavioral problems at a rate four to five times higher than individuals without disabilities. Therefore, it is important to conduct psychological research on the emotional-social issues faced by these individuals. Due to their unique circumstances, the methods used to help them must be diverse and tailored to their specific needs. One effective program for assisting these children is emotional skills training (Jabbary Daneshvar et al., 2022). This program aims to recognize and strengthen thought and emotional patterns, enhance emotion regulation, and apply emotional skills in everyday situations. Previous studies have shown that emotional skills training can improve emotional processing, reduce social detachment, encourage emotional expression, and enhance motivation for change (Meneguzzo et al., 2024). Studies have shown that emotional skills training can assist children in developing stronger friendships, displaying more positive social behaviors, enhancing their ability to recognize, express, and regulate emotions, and reducing negative behaviors (Arnardóttir et al., 2023). Furthermore, research has shown that emotional skills training can greatly improve awareness and control of personal and interpersonal emotions (Smith et al., 2024). Another study discovered that instruction in socio-emotional skills can enhance social skills and reduce aggression in adolescents (Salari et al., 2023).

Children who have mental retardation may exhibit aggressive behaviors and face challenges in social adaptation as a result of their cognitive and emotional limitations. It is crucial to address these issues by helping them manage their emotions, decrease aggression, and enhance their social interactions to enhance their overall quality of life and societal

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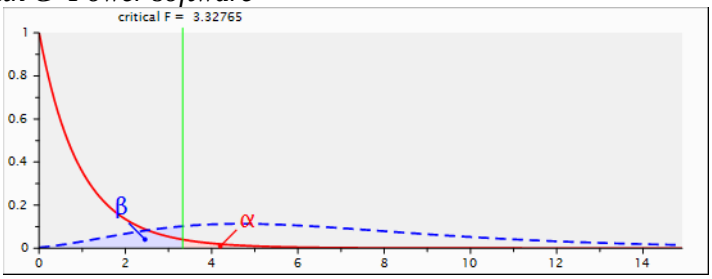
acceptance. Despite numerous studies focusing on interventions to minimize aggression in children, there is a lack of research specifically targeting those with mentally retarded. Furthermore, there is a scarcity of research that simultaneously explores the impact of emotional skills training on aggression control and social adaptability. This study aims to assess the effectiveness of emotional skills training in reducing aggression and enhancing social adaptability in children with educable mentally retarded. This study aims to improve the emotional and social skills of children to improve their overall quality of life and interactions with others.

2. Methods and Materials

The current research is an applied and quasi-experimental study that includes a pre-test, post-test, and a follow-up phase of three months with both control and experimental groups. The statistical population consists of children with educable mentally retarded between the ages of nine and thirteen who attended the Exceptional Student Education Center in Tehran during the summer and fall of 2023. The total population consisted of all mental retardation children within this age range. The sample size for the study was 32 individuals, with an equal distribution of 16 participants in both the experimental and control groups, comprising both boys and girls. The participants were chosen through purposive sampling and then randomly divided into groups using a coin toss. The sample size adequacy was determined using G*Power software, with the input parameters of alpha=0.05, effect size=0.35, power test=0.80, and number of groups=2 (Kang, 2021). The final sample size determined using this formula was 32 individuals.

Figure 1

*Sample size calculation with G*Power software*



The study's inclusion criteria comprised of children being a minimum of nine years old, obtaining parental consent to participate, possessing necessary comprehension skills, being enrolled in a specific special education center in Tehran, and having an official file on record. On the other hand, the exclusion criteria involved having a physical impediment preventing participation, failure to respond to multiple questionnaire items (more than 5 questions), recent engagement in similar educational programs, or skipping educational sessions leading to study withdrawal. Additionally, individuals with physical limitations or significant behavioral issues, such as those with Down syndrome or impairments in visual and auditory systems, were excluded due to their inability to attend sessions and participate effectively.

The study's research methodology involved obtaining permits from the researcher's university to conduct research, visiting two exceptional education centers specializing in counseling and education for children with mentally retarded, selecting centers based on ease of implementation of education and interventions, sending virtual and announcements to parents of eligible children, screening children's conditions prior to invitations, selecting interviewees purposefully, conducting in-person interviews with parents to select 40 subjects, explaining research objectives and ethical principles to parents, screening participants for eligibility, ultimately selecting 32 individuals, administering a pre-test to gather data, randomly (coin test) dividing participants into groups for training sessions, implementing a 7-session (60 min) emotional skills training program for the experimental group while the control group received no intervention initially (Amirkhanloo, et al., 2022) , providing emotional intelligence training (based on the Bradberry and Greaves training) to the control group after the study ended (Bradberry et al., 2009), summarizing training sessions based on specific guidelines, presenting a flow chart of the study, conducting post-tests for both groups at the end of the sessions and again three months later for follow-up comparison, excluding data from participants who withdrew during the study, and emphasizing ethical considerations such as parental consent and confidentiality of information. The CONSORT flow chart is shown in Figure 1. This research examined descriptive statistics such as mean and variability for both descriptive statistics and research hypotheses, utilizing Kruskal-Wallis H and repeated measures analysis of covariance at a P-value of 0.05 with SPSS statistical software version 27. The

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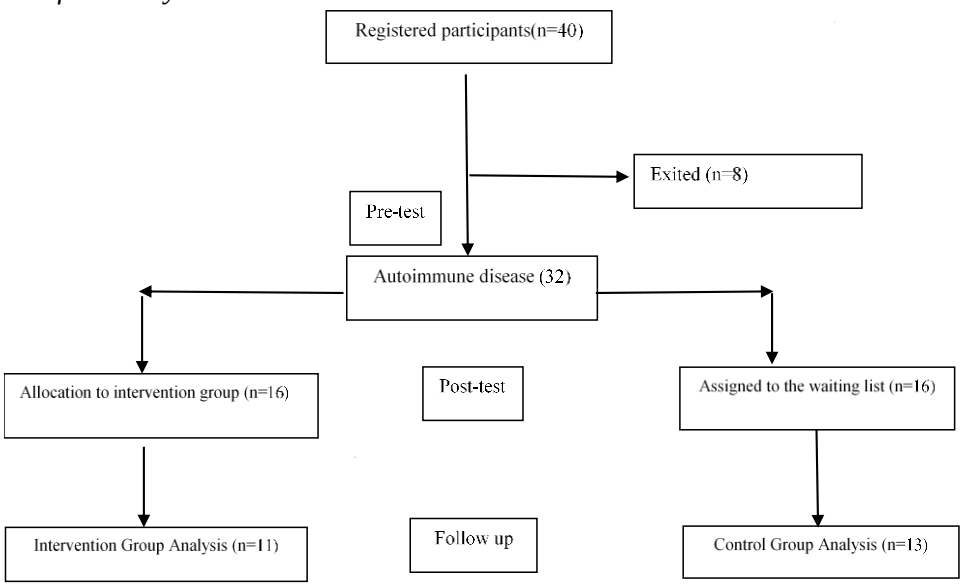
Kolmogorov-Smirnov test was utilized to evaluate normal distribution, while the Levene test was used to evaluate equality of variances. Furthermore, the Bonferroni post hoc test was employed to compare means.

Figure 2

The flow diagram of the study



Child Aggression Scale (CAS): In 2008, Vahedi and colleagues created a self-report survey to evaluate levels of aggression in children aged 6 to 13 (Vahedi, 2008). The survey includes 43 questions, each with five possible responses from 0 to 4 (0 = never, 1 = seldom, 2 = monthly, 3 = weekly, 4 = daily). Teachers or parents of the child complete the questionnaire, which includes four subscales: verbal-aggressive, physical, relational aggression, and hostility. The responses to each question are scored individually, and the total sum of these scores should fall between 0 and 172. A higher score suggests a higher level of aggression. In examining the questionnaire's validity, the developers conducted a correlation analysis comparing aggression ratings by a psychiatrist with those based on the Child Aggression Scale, resulting in a Spearman correlation coefficient of 0.61. The Cronbach's alpha coefficient for the entire scale was 0.98, with coefficients for the four subscales (verbal, physical, relational aggression, relational, and hostility) being 0.92, 0.93, 0.88, and 0.94, respectively. A study conducted in Iran found the Cronbach's alpha coefficient for this scale to be 0.91 (Alizadeh et al., 2022). Another study reported a Cronbach's alpha coefficient of 0.73 for this scale.

Rutter Child Behavior Questionnaire (RCBQ): The self-report questionnaire was created by Rutter in 1967 in two versions, A and B, to assess social adaptation and aggression levels in 7-13-year-old children as perceived by their parents, as well as anxiety, depression, antisocial behaviors, and attention deficit disorder (Rutter, 1967). It consists of 30 items, with respondents choosing from three options (0 to 2) for each item. Generally, this survey is completed by either the child's teacher or parents. There are six questions in the survey related to social incompatibility, with scores ranging from 0 to 12, and another six questions that center on parental perspective on aggression, also scored from 0 to 12. The scores in each category are then added up, with higher scores indicating greater levels of aggression and incompatibility in the child. The researcher evaluated the questionnaire's validity, demonstrating an inter-rater agreement of 76.7 and a reliability of 0.89 through the split-half method. In Iran, a study revealed a Cronbach's alpha coefficient of 0.88 for this scale (Saadipour et al., 2020). Another study found that the Cronbach's alpha coefficient for this scale was 0.77.

Table 1

Summary of Emotional intelligence training protocol

Session	Content

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First	- Introduction and meeting the members - Simplifying the objectives and guidelines of the group using childlike language - Determining the objectives and general structure of the sessions - Defining emotions and providing examples along with the trainer's behavior - The significance of emotional intelligence
Second	- Identifying and instructing on words related to emotions and feelings - Teaching how to identify and display suitable facial expressions - Utilizing methods like narratives and allegories - Observing facial features through reflections in mirrors and posters - Sharing narratives that depict various emotions - Requesting children to identify these feelings - Reviewing homework
Third	- Defining social adjustment with examples and demonstrations and emotional control - Understanding the emotions of others - Receiving feedback - Presenting homework - Presenting a chart of physical signs and teaching physical signs related to different emotions - Reviewing homework
Fourth	- Teaching people to listen actively and show empathy - Receiving feedback - Presenting homework - Demonstrate adaptive interactions and provide examples of conflicts at home - Sharing short stories about adaptation to people around you - Writing scenarios where the child faces conflict - Practice minimizing differences - Reviewing homework
Fifth	- Problem-solving training by emphasizing emotions - Receiving feedback - Give out homework - Managing emotions by altering circumstances - Soothing and emotional phrases - Recognizing negative emotions causing problems - Learning to manage emotions - Reviewing homework
Sixth	- Instruction in managing and controlling anger and aggression - Exploring the outcomes of anger through examples and anecdotes Offering strategies for managing anger - Receiving feedback - Presenting homework - Sharing anecdotes of instances when children experience anger
Seventh	- Review past sessions - Get feedback on past sessions - Review, wrap up, and post-test

3. Findings and Results

Data was gathered from children at three different times - before the study, after the study, and during a follow-up - from both the experimental and control groups. Initially, the researcher analyzed the research factors for each group in Table 2.

demographic factors of the participants, who were divided by gender: male and female. The Chi-Square test results indicated that there was no significant difference among the participants in terms of demographic factors (P= 0.341), confirming that the groups were similar in this regard. The researcher also analyzed and displayed the mean and spread of the

Table 2

Description of research variables

Variable	TIME	Groups	N	M	SD	Min	Max	Skewness	Kurtosis
Aggression	Pre-test	Experimental group	11	73.818	1.940	71	77	-0.090	-0.716
		Control	13	72.231	1.787	70	75	0.420	-1.272
	Post-test	Experimental group	11	71.182	0.751	70	72	-0.329	-0.878
		Control	13	72.769	1.589	70	75	-0.144	-0.990
	Follow up	Experimental group	11	69.091	0.831	68	70	-0.190	-1.485

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Social Incompatibility	Pre-test	Control	13	73.077	1.320	71	76	0.606	0.603
		Experimental group	11	7.000	0.775	6	8	0.000	-1.111
	Post-test	Control	13	6.846	0.801	6	8	0.307	-1.282
		Experimental group	11	6.545	1.128	5	8	-0.393	-1.182
	Follow up	Control	13	6.923	0.862	6	8	0.164	-1.680
		Experimental group	11	6.545	0.934	5	8	-0.610	-0.239
Parental Perspective on Aggression	Pre-test	**Control**	**13**	**6.769**	**0.832**	**6**	**8**	**0.498**	**-1.339**
		Experimental group	11	5.909	0.944	5	8	1.081	1.206
	Post-test	Control	13	6.154	0.899	5	8	0.472	-0.023
		Experimental group	11	4.727	0.647	4	6	0.291	-0.208
	Follow up	Control	13	6.154	0.987	5	8	0.876	0.294
		Experimental group	11	4.182	0.405	4	5	1.923	2.037
		Control	13	5.769	0.599	5	7	0.065	0.051

Table 2 displays the mean and standard deviation of the participant's scores in the research variables. It is evident from the table that there was no significant difference in the mean Aggression scores between the experimental and control groups during the pre-test phase. However, the mean aggression scores decreased in the experimental group compared to the control group during the post-test and follow-up stages, with no changes observed in the control group. The mean social incompatibility scores in both groups during all stages showed no significant difference. In terms of parental perspective on aggression, there was no significant difference in mean scores between the experimental and control groups during the pre-test phase, but a decrease was seen in the experimental group during the Follow-up stage compared to the control group. Furthermore, the researcher confirmed the assumption after examining the Levene test in Table 3.

Figure 3
Q-Q Plot

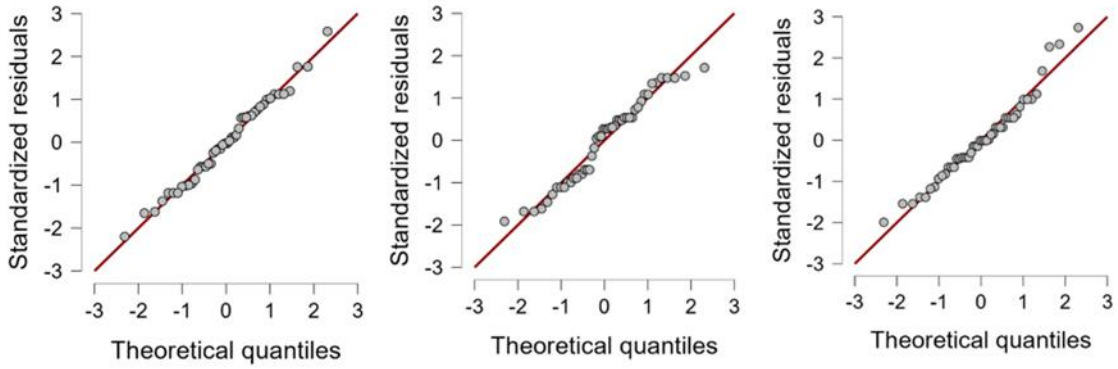

Table 3 *Test for Equality of Variances (Levene's)*

Variable		F	df1	df2	p
Aggression	Post-test	7.023	1	22	0.015
	Follow up	1.582	1	22	0.222
Social Incompatibility	Post-test	0.790	1	22	0.384
	Follow up	0.182	1	22	0.674
Parental Perspective on Aggression	Post-test	2.242	1	22	0.149
	Follow up	4.831	1	22	0.039

The researcher analyzed the outcomes of the repeated measures analysis of the covariance test in Table 4.

Table 4
Covariance Analysis Test

Variable		Source	SS	MS	F	P-value	Eta Squared
Aggression	Within Subjects Effects	TIME	1.323	1.323	0.809	0.379	0.037
		TIME ✻ Pre-test	1.502	1.502	0.919	0.349	0.042
		TIME ✻ group	10.791	10.791	6.600	0.018	0.239

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Social Incompatibility	Between Subjects Effects	Residuals	34.337	1.635			
		Pre-test	0.322	0.322	0.245	0.626	0.012
		Group	73.267	73.267	55.716	< .001	0.726
	Within Subjects Effects	TIME	0.959	0.959	1.571	0.224	0.070
		TIME ✻ Pre-test	1.029	1.029	1.685	0.208	0.074
		TIME ✻ group	0.134	0.134	0.220	0.644	0.010
		Residuals	12.817	0.610			
Parental Perspective on Aggression	Between Subjects Effects	Pre-test	0.005	0.005	0.005	0.947	2.175×10^{-4}
		Group	1.082	1.082	0.915	0.350	0.042
	Within Subjects Effects	TIME	0.011	0.011	0.041	0.842	0.002
		TIME ✻ Pre-test	0.016	0.016	0.058	0.812	0.003
		TIME ✻ Group	0.086	0.086	0.305	0.587	0.014
		Residuals	5.886	0.280			
	Between Subjects Effects	Pre-test	1.747	1.747	2.590	0.122	0.110
		Group	24.717	24.717	36.634	< .001	0.636

After analyzing covariance, the results in Table 4 showed a significant P-value in the Between-Subjects Effects for the aggression and parental perspective on aggression variables when comparing the experimental and control groups (p<0.001). This indicated a noticeable difference between the research groups while controlling for the Pre-test stage. The P-value for the Within-Subjects Effects for the aggression variable, which looked at differences between groups and time, was also significant (p=0.018). However, the p-value for the Between-Subjects Effects in the social incompatibility variable did not reach significance (p=0.350). In Table 5, the researcher analyzed the pairwise differences between the groups.

Table 5

Post Hoc Comparisons - Group ✻ TIME

Variable			MD	SE	t	p_{bonf}
Aggression	Experimental Group, Post-test	Control, Post-test	-1.672	0.585	-2.859	0.056
		Experimental Group, Follow up	1.920	0.574	3.347	0.018
		Control, Follow up	-1.835	0.523	-3.510	0.012
	Control, Post-test	Experimental Group, Follow up	3.592	0.516	6.968	< .001
		Control, Follow up	-0.163	0.524	-0.311	1.000
	Experimental Group, Follow up	Control, Follow up	-3.755	0.501	-7.495	< .001
		Post Hoc Comparisons - Group				
Parental Perspective on Aggression	Experimental Group	Control	-1.454	0.240	-6.053	< .001

Based on the results in Table 5 and Bonferroni's post hoc test, there was no notable variance in the aggression aspect between the experimental and control groups during the post-test phase (P=0.056). However, a substantial contrast between the two groups emerged solely in the follow-up phase (P<0.001). With a negative mean difference, it is evident that aggression levels diminished in the experimental group. Nonetheless, a distinction between the experimental group in the post-test and follow-up stages remained (P<0.001). The study indicates that the intervention method primarily reduced aggression progressively. Moreover, a significant difference in aggression levels was observed from the parental perspective on aggression in the experimental and control groups (P<0.001). The negative mean difference confirms a decrease in parental perspective on aggression of children in the experimental group.

4. Discussion and Conclusion

The current research focused on emotional skills training to manage aggression and enhance social adaptation in children with educable mental retardation. According to the findings of the study, the intervention approach employed resulted in a decrease in aggression from both the children's and parental perspectives on aggression. Nevertheless, it did not impact the social adaptation of the children.

The current study's results, which demonstrated that emotional skills training decreases aggression, align with previous research (Arnardóttir et al., 2023; Smith et al., 2024; Salari et al., 2023). A study found that

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emotional skills training helps children form better friendships, exhibit more positive social behaviors, enhance their ability to recognize, express, and manage emotions, and display fewer challenging behaviors (Arnardóttir et al., 2023). Another study revealed that emotional skills training can positively impact both individual and interpersonal emotion awareness and management (Smith et al., 2024). Furthermore, a study suggested that social-emotional skills training can enhance social competence and decrease aggression in teenagers (Salari et al., 2023). Although there is a lack of evidence to support the claim that emotional skills training affects social adaptability directly, this conclusion contradicts previous research findings (Ghanbari Saleteh & Mohammady Far, 2024). Ghanbari et al.'s (2024) study highlighted that socio-emotional skills training enhances psychological well-being and adaptability in students (Ghanbari Saleteh & Mohammady Far, 2024).

In elucidating this discovery, it can be noted that emotional skills training aids children in better recognizing their emotions and acquiring more efficient ways to handle them. An essential part of this training focuses on assisting children in identifying and communicating their emotions productively, ultimately leading to reduced aggression in various situations. Emotional training typically incorporates techniques to diminish stress and anxiety. These abilities assist children in managing their emotions and refraining from aggressive actions when confronted with difficulties and tense situations. This can be particularly beneficial for children with mentally retarded who may struggle with processing their feelings, as these skills can serve as a valuable tool in lessening aggression (Meneguzzo et al., 2024). Moreover, emotional skills training equips children with the means to enhance their social skills. Children can improve their emotional regulation in social situations and reduce anger by learning effective communication and conflict-resolution skills. Ultimately, these training sessions can aid children with mentally retarded in comprehending the repercussions of aggressive conduct and realizing that such behaviors can jeopardize their social connections and personal development, subsequently diminishing their inclination to express anger and aggression (Estrada-Fernández et al., 2023). Furthermore, the disparity identified in this study compared to prior research can be attributed to the focus of the current study on children with educable mentally retarded, whereas the study by Ghanbari Saleteh et al. (2024) concentrated on students at Imam Ali University. Discrepancies in age groups and individual characteristics between these two groups may impact the effectiveness of emotional and social training differently. Children with mentally retarded may necessitate more tailored and specialized approaches to teach these skills due to their unique attributes. Various factors may have contributed to the absence of an effect on children's social adaptability in the current intervention. One possible reason could be that improving emotional skills might only impact a certain aspect of social adaptability, while other factors like social interactions, family support, or personality traits could play a more substantial role. Additionally, the timeframe required to observe alterations in social adaptability may exceed the duration of the intervention, and this study did not allow sufficient time to witness these changes (Ghanbari Saleteh & Mohammady Far, 2024).

The limitations of the present research study should be kept in mind while interpreting the results. One limitation was the small number of samples analyzed, which may not accurately represent all the target groups. It is recommended to increase the sample size and conduct the research in various locations to enhance the significance of the results. Additionally, relying on self-report measures could lead to reporting bias; thus, using observational measures and input from teachers and parents in similar studies is advised to validate the results. Moreover, the lack of close monitoring at home and in non-school settings can impact children's development; therefore, incorporating support programs for parents and educators to oversee and implement emotional skills at home is recommended. The present study had limitations such as using only one intervention method, which may not work for all children. Future research should consider combining various educational approaches to address the diverse needs of children. Communication challenges with some children also hindered the complete implementation of interventions. It is advisable to utilize different communication strategies tailored to the needs of children with mentally retarded. In addition, educational programs need to be culturally and socially diverse, considering the specific requirements of various cultural, religious, and social communities. Genetic and neurological factors in children can significantly influence the effectiveness of education. Hence, it is advised for future research to investigate how genetic and neurological traits affect academic achievements and create personalized learning plans based on those findings.

Based on the findings of the current research, emotional skills training lowers aggressive behavior in children with educable mentally retarded and also decreases the aggression level as perceived by their

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parents. However, this approach does not significantly enhance the children's social adaptation. The findings of this research could be advantageous for teachers in special schools, parents of children with mentally retarded, researchers, therapists, educational decision-makers, and rehabilitation centers. This study aids in enhancing educational techniques to decrease aggression and boost social skills in children, potentially resulting in the creation of tailored educational and support initiatives for children with special needs. It also helps improve social interactions within families and treatment facilities. Creating and implementing educational programs for parents and educators outside of school is recommended to enhance the impact of emotional education in daily life, helping them develop emotional skills over time. Adapting teaching methods to meet the specific needs of each child, including their age, cognitive abilities, and social status, is suggested to improve the effectiveness of emotional and social education. Continuous and ongoing educational programs with follow-up at home and school are advised to achieve more sustainable results, especially in terms of social adaptation, which may require additional time and social experiences. While it is vital to reduce aggression, focusing on social skills in addition to emotional skills can enhance children's social adaptability. Teaching communication, collaboration, and problem-solving skills alongside emotional skills is recommended in educational programs.

Authors' Contributions

All author significantly contributed to this study.

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. Each participant received an informed consent form to understand the study's objectives.

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