



The Effect of Social Skills Training on the Social Development of Educable Female Students with Intellectual Disabilities

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Abstract

Students with intellectual disabilities face significant challenges not only in cognitive development but also in socialization. This study aimed to investigate the impact of social skills training on the social development of female students with intellectual disabilities who are capable of being educated in regular settings. Employing a semi-experimental, applied design with a pretest–posttest control group, the research sample comprised 30 students with intellectual disabilities from exceptional schools in Shahrekord. These students were selected through convenience sampling and randomly assigned to two groups of 15 participants each—experimental and control. The study utilized a social skills training program as the intervention and the Vineland Social Maturity Scale as the assessment tool. Data analysis was conducted using multivariate analysis of covariance (MANCOVA) in SPSS software. The results revealed a significant F value of 38.35 for social development ($P < 0.01$), indicating that social skills training significantly enhances the social development of students with intellectual disabilities. The findings provide empirical evidence supporting the effectiveness of social skills training in promoting social growth in educable female students with intellectual disabilities.

Keywords

social skills, social development, intellectual disability, girls

Introduction

According to reports from the World Health Organization, approximately 12–14% of children are classified as exceptional children, among whom about 2–3% have intellectual disabilities (Dedhia et al., 2013). Contemporary scientific definitions consider deficits in adaptive and social skills to be one of the key characteristics of intellectual disability. Research findings estimate the prevalence of adaptive disorders in this group to range from 13% to 75% (Dempsey et al., 2009). Students with intellectual disabilities face considerable limitations not only in cognitive development but also in social development. Considering that the ultimate goal of the educational system for these children is to achieve social adjustment and acceptance of social responsibilities, focusing on this domain becomes particularly important (Di Maggio et al., 2016). Research findings indicate that the social rejection of these children by their typically developing peers is often not due to learning difficulties but rather to inappropriate behaviors such as poor personal hygiene, aggression, misconduct, use of offensive language, and inability to align their behavior with group and social norms (Diedrich et al., 2014).

A lack of social skills during childhood can lead to negative short- and long-term consequences and may contribute to more serious problems during adolescence and adulthood (Diedrich et al., 2014). Furthermore, deficits in these skills are directly associated with difficulties in adapting to educational environments. Children who experience limitations in communication, cooperation, and interaction with peers are more vulnerable to social difficulties. Although children with intellectual disabilities are members of society who possess the same human rights as others, and their presence dates back to the history of humanity, systematic educational planning for this group in Iran has emerged only in recent decades (Diener et al., 2004).

The acquisition of social skills is recognized as a fundamental component of development, facilitating interpersonal relationships, improving the quality of interactions, enhancing social adjustment, and even promoting mental health (Diener et al., 1999). Therefore, structured social skills training for educable female students with intellectual disabilities is essential to empower them to participate appropriately in social settings and demonstrate context-appropriate behaviors. Effective adaptive behavior results from the integration of practical intelligence (including everyday problem solving, self-help skills, and functional independence) and social intelligence (including understanding social situations and interacting effectively with others) (Doğan, 2010).

Social skills training is considered one of the main approaches in rehabilitation and education systems for students with special needs (Domes et al., 2016).

Social development is not merely a spontaneous outcome of biological growth; rather, it depends on the quality of interpersonal interactions, observational learning, social feedback, and an individual's ability to use appropriate behaviors in different situations (Doostzade et al., 2017). Social skills consist of a set of learned behaviors, including initiating and maintaining communication, turn-taking, cooperation, conflict resolution, self-control, and appropriately seeking help. Consequently, deficits in these skills may reduce opportunities for positive interaction, increase conflicts, and ultimately lead to poorer social adjustment (Doostzade et al., 2017). In the case of educable students with intellectual disabilities, limitations in information processing, generalizing behaviors to different contexts, and understanding social cues mean that learning social skills requires direct instruction, step-by-step practice, and structured support (Dodge, 2010).

From the perspective of social learning theory, observing appropriate behaviors, imitation, and reinforcement by teachers and peers can contribute to the stabilization of social behaviors. Moreover, social skills training improves individuals' ability to recognize social situations and choose adaptive responses, thereby enhancing adaptive behavior, reducing the likelihood of social rejection, and improving peer relationships (Feldman-Barrett et al., 2001). Consequently, targeted educational interventions in the domain of social skills can provide a foundation for the social development of educable female students with intellectual disabilities (Feller et al., 2018).

Educational interventions focused on social skills can improve the level of adaptive behaviors in these students (Forgas, 2012). This assumption has been supported by numerous empirical studies (Gale et al., 2014). Considering the additional vulnerability of female students within this group, implementing educational programs that improve their interpersonal interactions and social acceptance not only contributes to their personal growth and independence but also reduces social stigma and facilitates their integration into society. Overall, social skills training should not be viewed as a supplementary activity but rather as a fundamental necessity for achieving the educational and rehabilitation goals of students with intellectual disabilities, guiding their future lives toward more constructive interactions and better social adjustment. Therefore, the present study seeks to answer the following question: Does social skills training affect the social development of educable female students with intellectual disabilities?

Materials and Methods

The present study employed an applied, semi-experimental design using a pretest–posttest format with a control group. The statistical population consisted of all educable students with intellectual disabilities enrolled in exceptional schools in Shahrekord. A sample of 30 students with intellectual disabilities was selected from one special education school through convenience sampling and randomly assigned to an experimental group ($n = 15$) and a control group ($n = 15$).

Instruments

Social Skills Training Program: The social skills intervention consisted of eight sessions of 90 minutes each, conducted twice a week. The content of each session was adapted from the book by *Beh-Pajouh and colleagues (2007)*. The topics and activities covered in each session are shown in Table 1.

Table 1. Social Skills Training Program

Session	Content of Each Session
1	Introduction and acquaintance among group members; presentation of group rules; discussion on the importance of social skills; feedback on self-introduction, tone of voice, and assignment on how to introduce oneself to others.
2	Report and feedback on the previous session's assignment; practice of everyday greetings and polite exchanges; exercises on initiating, maintaining, and ending conversations appropriately; assignment on starting conversations and listening skills.
3	Report and feedback; practice on making requests; modeling appropriate responses when requests are denied; assignment on making requests and expressing positive and negative emotions properly.
4	Report and feedback; exercises on expressing emotions; modeling various emotions such as joy, anger, sadness; assignment on expressing feelings and the skills of asking for and providing help.
5	Report and feedback; exercises on refusing unreasonable demands; discussion about the difficulty of saying "no"; assignment on rejecting illogical requests and practicing the "saying no" skill.
6	Report and feedback; discussion on giving constructive criticism; assignment on providing feedback to others; exercises on apologizing and accepting apologies appropriately.
7	Report and feedback; exercises on accepting criticism; modeling effective responses to criticism; assignment on coping with criticism and practicing problem-solving and frustration tolerance.
8	Report and feedback; summary and review of all sessions; evaluation of progress; self-assessment and closure of the program.

Vineland Social Maturity Scale: The Vineland Social Maturity Scale (VSMS) was originally developed by Doll (1953) and revised in 1965. It was translated and standardized into Persian by Brahné, Akhvat, and Daneshmand (1978). The scale comprises 117 items, organized into one-year age bands. Information is obtained not through testing situations but via interviews with knowledgeable informants such as parents, caregivers, or teachers, and occasionally from the participants themselves.

The VSMS measures an individual's ability to meet daily practical needs and assume social responsibilities. Although the scale covers the age range from birth to well beyond 25 years, it

contains specific questions for each year up to age 12, and combined categories for ages 12–15, 15–18, 18–20, 20–25, and over 25 years. It is most effective for younger age groups with one-year intervals.

Responses can be collected through parent/caregiver interviews or direct observation by the investigator. Testing may begin from birth items for children with severe intellectual disability or from two to three years below biological age for those with mild disability. A child's *social age* and *social quotient* can be computed based on total scores. The scale includes eight domains: general self-help, self-help in eating, self-help in dressing, self-direction, occupation, verbal communication, locomotion, and socialization. Standardization data were based on 620 individuals ranging from birth to 30 years (10 males and 10 females per age group). The retest reliability coefficient was reported as $r = .92$, with retesting intervals between one day and nine months.

Procedure

Participants in the experimental group received eight 90-minute sessions of social skills training (two per week), while the control group received no training or intervention. The Vineland Social Maturity Scale was administered to both groups before and after the intervention.

Data Analysis

Collected data were analyzed using descriptive statistics (mean, variance, and standard deviation) and inferential statistics. To test the research hypothesis, Multivariate Analysis of Covariance (MANCOVA) was performed using SPSS software. Preliminary assumptions of the statistical test were also checked prior to analysis.

Results

To examine the significance of differences between the experimental and control groups in social development, Multivariate Analysis of Covariance (MANCOVA) was used. Before performing the analysis, the assumptions of the test were examined. To test the homogeneity of variances, Levene's test was conducted. As shown in Table 1, Levene's test for the social development variable was significant ($F = 9.38$, $p = .007$). Therefore, due to the inequality of variances, the results should be interpreted with caution.

Table 1. Summary of Levene's Test for Equality of Error Variances

Variable	F	df1	df2	Sig.
Social Development	9.38	1	28	.007

One of the assumptions of multivariate covariance analysis is the homogeneity of covariance matrices of the dependent variables across groups. This assumption was examined using Box's M test. As shown in Table 2, the significance level of Box's test is greater than .05, indicating that the observed covariance matrices of the dependent variables are homogeneous across groups.

Table 2. Summary of Box's Test for Equality of Covariance Matrices

Box's M	F	df1	df2	Sig.
3.71	0.51	6	2347.47	.81

Table 3 presents the means and standard deviations of social development scores for the experimental and control groups at the pretest and posttest stages.

Table 3. Means and Standard Deviations of Social Development Scores in the Experimental and Control Groups

Variable	Stage	Group	Mean	SD
Social Development	Pretest	Experimental	54.10	11.70
		Control	53.40	10.00
	Posttest	Experimental	65.00	12.43
		Control	55.20	9.43

As shown in Table 4, there is a significant difference between the two groups in the dependent variables; therefore, a univariate analysis within the MANCOVA framework was conducted.

Table 4. Multivariate Covariance Analysis (MANCOVA) on Posttest Scores of Social Development

Test	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0.94	70.50	3	13	.001
Wilks' Lambda	0.06	70.50	3	13	.001
Hotelling's Trace	16.27	70.50	3	13	.001
Roy's Largest Root	16.27	70.50	3	13	.001

Table 5 presents the results of the multivariate covariance analysis comparing posttest social development scores between the experimental and control groups. According to the results, the F value for social development was 38.35, which was significant at $p < .01$. Therefore, it can be concluded that social skills training significantly increased the social development of students with intellectual disabilities.

Table 5. MANCOVA Results for Social Development Scores Between the Experimental and Control Groups

Source	Variable	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Group	Social Development	447.51	1	447.51	38.35	.001	.70
Error	Social Development	189.71	15	12.65			
Total	Social Development	749.12	20				

Discussion

The findings of the present study indicate that social skills training has a significant effect on improving the level of social development among educable students with intellectual disabilities. These results are consistent with findings from previous research. For example, Doğan et al. (2010) reported a significant increase in social–emotional skill development following an educational intervention (Doğan, 2010). Similarly, Feller et al. (2018) found that social skills training led to considerable improvement in students' social activities and behaviors as well as increased self-confidence (Feller et al., 2018). In the same vein, the findings of Gale et al. (2014) demonstrated the positive impact of social skills training on anger management, friendship formation, assertiveness, and effective communication among aggressive children and adolescents with behavioral and emotional disorders (Gale et al., 2014). Moreover, Gallo et al. (2005) reported that social skills and assertiveness training positively influenced social adjustment and enhanced the social skills of participants (Gallo et al., 2005).

These findings can be explained based on the reciprocal nature of the socialization process, in which individuals and society mutually influence one another (Feller et al., 2018). The acquisition of social skills, the ability to establish relationships with others, and social adjustment constitute key dimensions of this complex process. Social behavior forms the foundation of an individual's life, and social development itself contributes to the acceleration of other developmental aspects of the individual (Gale et al., 2014).

Social development refers to an individual's engagement in relationships that facilitate harmony and adaptation within society. In other words, a person is considered socially competent not only when they coexist with others but also when they cooperate with them. From this perspective, social development is one of the most essential aspects of human existence because, without adequate social skills, individuals are unable to fulfill their roles effectively within social interactions. Therefore, the abilities that individuals gain through social skills training—such as forming positive social relationships, enhancing peer acceptance, and achieving satisfactory

adjustment in school and other life contexts—play a crucial role in their overall development (Gallo et al., 2005).

The acquisition of social skills, as the central component of social development, influences the formation of social relationships, the quality of interpersonal interactions, individual adjustment, and ultimately mental health (Garnefski et al., 2002). Students with intellectual disabilities often face considerable challenges in establishing adaptive relationships with their environment due to a lack of necessary social skills. Consequently, they may display immature or disorganized behaviors that can lead to additional maladaptive outcomes. Learning social skills helps these children demonstrate more appropriate behaviors, receive more positive feedback in social environments, avoid negative responses, and develop interpersonal relationships more effectively (Gale et al., 2014).

Social skills consist of a set of learned behaviors that enable individuals to interact effectively with others and avoid inappropriate social responses. Children who lack adequate social skills often experience significant difficulties in joining social groups and forming supportive friendships. Over time, such challenges may lead to social isolation, feelings of loneliness, and an increased risk of communication and social problems (Feldman-Barrett et al., 2001). Therefore, these children require structured, cost-effective, and non-harmful training approaches for learning social skills, rather than harsh disciplinary methods such as physical punishment or verbal aggression (Doğan, 2010).

Considering the effectiveness demonstrated in the present study, social skills training can be utilized as an effective approach to enhance the social development of students with intellectual disabilities. Providing appropriate social skills training and creating opportunities and experiences that increase social interaction can help these students demonstrate better adjustment across different environments and situations.

Conclusion

Empirical evidence from the present study indicates the positive effectiveness of social skills training in enhancing the social development of educable students with intellectual disabilities. The findings revealed that this educational intervention resulted in significant improvements in several dimensions of social development, including interpersonal relationships, social adjustment, and increased peer acceptance. These results are consistent with theoretical perspectives

emphasizing the crucial role of social skills in the socialization process as well as with previous research findings.

Therefore, it is recommended that structured and systematic educational programs aimed at strengthening social skills be developed and implemented for this group of students. Such programs can contribute to their personal empowerment and facilitate their successful social integration within the community.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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