

Original Article

The Effectiveness of Emotional Intelligence Training on Communication Skills in Students with Intellectual Disabilities

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Objectives: Emotional intelligence skills begin at home, and with positive interactions with parents and other children. Parents can help children recognize their emotions, name them, and learn how to respect their feelings and adapt to social situations. The aim of the present study was to investigate the effectiveness of emotional intelligence training on the communication skills of students with intellectual disabilities.

Methods: This study was quasi-experimental, with a pre-test, post-test design and a control group. The sample consisted of 32 educable students with intellectual disabilities (14-18 years old).

Results: The results showed that the intervention program had created a significant difference between the scores of the experimental and control groups ($P < 0.05$), and that the scores for communication skills were increased, both post-test and also in the experimental group follow-up ($P < 0.05$).

Discussion: Emotional intelligence training enhanced the communication skills of students with intellectual disabilities. Teachers, professionals, and clinicians could use these training in their practices.

Keywords: emotional intelligence, communication skills, intellectual disability

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Introduction

By definition, Intellectual Disability is a condition in which a person's general intelligence is significantly below average, with some deficits in functioning and adaptive behavior being manifested during the growth period and before the age of 18 (1, 2). These children lag behind their peers in motor skills, communication, and social and cognitive performance (3). According to research, between 1 and 3% of the general population are intellectually disabled (4). According to the statistics, in Iran, about 1.2 million people possess this disability (5). The largest group is educable, having an IQ that of 55 or 60 up to approximately 70. Educable children often show mild developmental delays in the pre-school period, and these deficits are not recognized as academic or behavioral problems until the first years of school (1). Students with intellectual disabilities, when compared with their peers, have some everyday problems with adaptive and communication skills, as well as lacking appropriate skills in social roles,

interpersonal interactions and life skills (6). Researchers have shown that people with intellectual disabilities have difficulties in identifying emotions and display a lack of emotional awareness (7). They also have trouble recognizing and expressing emotions and even communication skills, so it seems that more work in the field of emotional intelligence is necessary (8). Emotional intelligence can be seen as an individual tactical capability (9).

Bar-on (10) defined emotional intelligence as: a set of knowledge and emotional and social abilities that affect our overall ability to respond effectively to the needs of the environment.

This set of knowledge includes the following:

Being aware of one's ability, one's understanding and the ability to express oneself.

The ability to be aware of others, understand others and expressive potential.

The ability to deal with intense emotions and control one's impulses.

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The ability to adapt to changes and to resolve issues of a social or personal nature (10). In fact, Emotional Intelligence is measured on five scales: intrapersonal relationships, interpersonal relationships, coping, adaptation, and mood (11).

Paying attention to the emotional-affective health of children and adolescents in the community is important, so in the process of Emotional Intelligence skills training, skills are taught including: self-awareness, impulse control, anger management, assertiveness, accountability and happiness. By acquiring these skills, significant changes in the index of personal, interpersonal and communication skills in adolescents are created (12). According to Ulutax (13) and Kezovara (14), Emotional Intelligence training is effective in increasing the ability of individuals to cope with the problems of life and relationships with others, and in enhancing communication skills. On the other hand, any damage, alongside the lack of optimum development of Emotional Intelligence affected by disability, can cause problems in other psychosocial health indicators of people with disability, such as communication skills and the level of Emotional Intelligence (15). A study by Nicholas et al. (16) illustrated that the difficulties of communication are related to a poor understanding of emotions and behaviors. The analysis of the research results showed that a reduction in social communication is linked to a poor understanding of emotions and increased repetition of externalized behavior. There are two areas of personal and social competencies. In the area of personal emotional intelligence, we mean the competencies and capabilities which create one's relationship with one. In these areas, we deal with components such as self-awareness, self-confidence, initiation, and emotion management. In the realm of social emotional intelligence, we mean the abilities and capabilities relating to communication with other people. Components such as empathy, conflict management, collaboration and communication with others, as well as taking responsibility, are in this area (16). Emotional intelligence is essential for efficient communicational, intellectual and emotional development. Controlling one's emotions and adjusting them to the context, as well as trying to understand others and interact positively, are the skills that bring satisfaction and accomplishment to human beings on an individual as well as a social level (17).

In fact, emotional intelligence skills begin at home, and with positive interactions with parents and other children. Parents can help children recognize their emotions, name them, and learn how to respect their feelings and adapt to social situations (18). Emotional intelligence training can help children to learn and enhance their communication and social skills, because these children usually don't participate in social activities to help them take advantage of effective coping and adaptive strategies (19). Many research results have shown that emotional intelligence is not a fixed and immutable ability, and that it can be increased by special training to improve its quantity and quality (20). Some believe that it would be very helpful for children if the EI skills training were applied in early stages of life, such as in pre-school, and that such training should be made interesting and could include different educational activities such as puppet shows, role playing, training videos, etc. With these training, the communicational and social problems could be alleviated, and appropriate adaptive and interpersonal skills could be built from early childhood (21).

According to research in this area, there are lots of studies on emotional intelligence, but not on emotional intelligence and students with intellectual disabilities. Given the importance of emotional intelligence and its effects on the behaviors of different groups of people, such as individuals with intellectual disabilities, we decided to conduct our emotional intelligence study on this population. Therefore, the purpose of this study was to investigate the effectiveness of emotional intelligence training on the communication skills of students with intellectual disabilities.

Methods

This study employed a quasi-experimental research design, with a pre-test, post-test and control group. The research population consisted of all the students with intellectual disabilities (IQ 55-60 to 70), according to the school records of the children. With a 0.95 confidence level, the sample consisted of 32 students (16 in the experimental group and 16 in the control), who were selected by accessible sampling and entry criteria. The experimental group was divided into two groups of 8. In this study, the entry criteria were: students with intellectual disability (IQs of 60-70), of an age range from 14 to 18 years. Exclusion criteria: a history of participation in the same or similar training programs, having serious

psychiatric disorders, use of psychotropic drugs, and an absence of more than 3 consecutive sessions. After obtaining informed consent from parents and teachers, and applying moral considerations, the samples were selected.

Instrument: the Vineland Adaptive Behavior scale assesses personal and social competence of people from birth to adulthood. This scale is also used for people with disabilities. Vineland has 4 domains; communication, daily living skills, socialization and motor skills. In this study, the scale standardized by Baraheni (22) was used. This form measures adaptive behavior from birth to 18 years and 11 months old. For individuals with low performance, such as children with intellectual disabilities, parents can complete the questionnaire. In this study, the students were 14-18 years old and their parents assessed the adaptive behavior of their children. This form has been normalized on 4800 disabled and non-disabled individuals. The reliability of the scale was evaluated through test-retest by Baraheni (22). Cronbach's reliability test on 30 parents or caregivers of students with intellectual disability was 0.85 to 0.90. The validity of the test was approved by experienced teachers, and through test runs.

Communication Skills Domain: This territory refers to how to communicate with others, and has three sub-domains. These three sub-domains consist of: receptive, expressive and written areas. In the receptive sub-domain, the understanding of other's words and speaking, listening and follow-up tests were considered. In the expressive sub-domain, first signs and attempts to speak, start and continue talking were examined, while in the writing area, reading and writing skills were evaluated.

Scoring: Depending on whether and how the activities were performed, the scores were given. If a desired task was correctly performed, a score of 2 was given. If the task was sometimes performed, or with relative

success, a score of 1 was given. If the requested task was never completed, the score was zero. If, due to the limitations and conditions of the external environment, the task was not done, an N was given, meaning "lack of opportunity". If the respondent did not know the person's behavior and was not aware of it, Dk was given, meaning "I don't know".

Procedure: The Vineland Adaptive Behavior Scale was filled out as a pre-test by parents. In the following stage, experimental groups received emotional intelligence training in 22 sessions for 45-minutes (4 sessions per week), while the control group did not receive any training during the study and only followed the regular school program. After finishing the training sessions, the post-test was administered, and after 1 month, the parents of the experimental group filled out the questionnaire for follow-up. Data were analyzed using an analysis of variance. The basis of the emotional intelligence training program was from Bar-on (23) program which was standardized by Dehshirin (24), with some modifications appropriate for this population. The concepts were taught by different activities, using pictures, story books, movies, etc. The concepts were as follows: 1-Emotional self-awareness, 2-self-respect and self-actualization, 3-Independence, 4-Assertiveness, 5-Empathy 6-Interpersonal problem solving, 7-Decision making skills, 8-Flexibility of reality testing, 9- Impulse control, 10-Stress tolerance, 11-Happiness, and 12-Optimism (25)

Results

Table (1) shows that there was not a significant difference between the pre-tests of the two groups but that the mean scores of the post-test and follow-up in the experimental group were increased, as well as being higher than the control group.

Table 1. The mean scores for experimental and control groups in pre- post and follow-up tests

	Pre-test		Post-test		Follow up	
	M	SD	M	SD	M	SD
experimental	28.37	5.43	33.56	3.46	32.31	3.35
control	29.56	3.93	29.37	3.37	29.97	3.75

To investigate the difference between the means scores of two groups in pre- post and follow-up, a mix

of variance analyses were used. The Leven test was used for the homogeneity of variances (Table 2).

Table 2. The results of the Leven test

	F	df1	df2	Sig
Pre test	0.070	1	30	0.793
Post test	0.034	1	30	0.856
Follow up	0.077	1	30	0.791

Table (2) shows that the Leven test, with a score of less than 0.05, isn't significant, so there is variance homogeneity and we can do an analysis of variance between groups.

Table 3. The result of the Mauchly test

Mauchly	Chi-squared	df	sig
0.523	4.698	2	0.481

Table (3) shows we can use variance analysis for repeated measures. ($X^2(2)=4.498, p>0.05$)

Table 4. The result of variance analysis for communication skills

	Sum of	df	Mean of	F	P
Pre-test	215.281	2	107.641	18.642	0.001
Error	173.219	30	5.774		
Group	672.76	1	186.397	9.58	0.001
Error	254.88	28	22.065		

Table (4) indicates that F is significant ($F(2,30)=18.64, p=0.001$). The comparison of the means for communication skills in three stages (pre-, post- and follow-up), showed that the scores didn't change a lot in the control group, but increased in the experimental groups in post-test and follow-up and that the post-test was higher than the follow up. Also, the intergroup results indicated that the difference was significant and that the mean scores for the communication skills for the experimental groups was higher than the control group ($F(1,28)=9.58, P=0.001$).

Discussion

The study aimed to investigate the effect of emotional intelligence training on the communication skills of students with intellectual disabilities. As the findings show, the emotional intelligence training enhanced the communication skills of the students with intellectual disabilities. The research findings are consistent with Fletcher et al.'s study (26) in which the positive impact of emotional intelligence training on the communication skills of medical students was determined. Alagheband et al. (27) examined the relationship between the emotional intelligence and the communication skills of high school students. Their results showed that between the different dimensions of emotional intelligence and communication skills, except for empathy and responsibility, there were significant correlations. It seems that there is a close relationship between emotional intelligence and communication skills, and that these skills can be considered as part of the overall structure of emotional intelligence. This means that someone who has the ability to understand others' mood changes can accurately

identify, control and manage their own and others' emotions (28). Hassani et al. (29) also examined the relationship between emotional intelligence and interpersonal problems, with results indicating a significant relationship between the majority of the EI components and interpersonal problems. The different components of emotional intelligence could predict some aspects of interpersonal difficulties. Emotional intelligence, with mental health supports, reduced interpersonal problems and improved the quality of social and interpersonal relationships. In fact, the ability to recognize facial expressions and emotional responses to these expressions and emotions is essential for people's interactions; individuals with intellectual disabilities are generally deficient in these skills. Nichols et al. (16) studied communication problems in children with autism, and concluded that these children have problems in emotion recognition, and that they can be treated with emotional intelligence training. Emotional intelligence training teaches students how to have effective communication skills and to be able to communicate with others without problems. During training, students could evaluate their capabilities through activities such as role playing, games and the use of flash cards, which aimed to teach them these skills and increase the interaction between them (30). Usually, emotional intelligence training can improve the communicative functions of students by acquainting them with interpersonal skills, social skills, and basic knowledge of the components of verbal and nonverbal communication (31). The intervention process based on emotional intelligence was designed to help these students deal with their problems, and to help these students deal with the difficulties which are associated with intellectual disability, as well as to live their roles

effectively and be flexible. A correct perception of the emotional self and others and empathy (a fundamental component of EI) would deepen interpersonal communication, strengthen protection, feelings and seeking help from others, all of which will lead to an increase in mental health (32). Hopson et al. (33) showed that some of the social cognitive problems come from not understanding complex emotional expressions in others which require inference about another's mental state, such as pride and embarrassment, along with the integration of the verbal and non-verbal aspects of emotional reactions. Another study (17) showed that people who are more sympathetic and able to understand and express their feelings and support others, display high emotional intelligence in their interpersonal relationships and interactions with others. Overall, findings indicate that emotional intelligence training programs increase the communication skills of students with intellectual disability. Based on the severity (mild, moderate, severe, profound), great heterogeneity exists among these individuals in terms of communicative ability. In mild ID, some people are relatively unimpaired and may be considered to be in the normal range of communicative function, while in more severe ID, people tend to possess fewer communicative skills (34). Since the sample in this study was mild sufferers and 14-18 years old, they did not have many problems in expressive and receptive language. However, to understand the learners better, the trainer tried to use different techniques such as simplification and repetition during instruction-giving. Koul and Clapsaddle (35) stated that repeated listening experiences play a significant role in the perception of synthetic speech for individuals with mild-to-moderate intellectual disabilities as well as in typical participants. The context is important, too. These individuals are seen to comprehend basic repetitive and context-

dependent communicative actions (e.g. association of objects with specific daily routines, and responding to their own name) more often than more abstract or symbolic communications (e.g. identification of photographs of familiar people and common objects in a magazine) (35, 36). In the area of expressive language, the trainer tried to let students read stories related to concepts or to talk about them and correct them by giving appropriate feedback and support. A more active role, with the communicator attempting to elicit a response from the individual with ID, can also facilitate improved expressive communication. The practices could include increased prompting, suggesting possible responses, and rephrasing the ideas expressed by the individual with ID (37, 38). For writing (which the Vineland scale focuses on for this age range), in the sessions related to talking about emotions, the instructor tried to explain and give lots of practice regarding emotions; for example, writing their address on an envelope or writing a few words or a sentence about the requested concept or question (such as "What things make you happy or sad?"). However, the instructor feels that with this training program, these students would progress in every area of communication.

Conclusion

Our findings indicated that emotional intelligence training enhanced the communication skills of students with intellectual disabilities. It seems that these kinds of training could be very beneficial for students. Therefore, teachers, professionals, and clinicians could use them in their practices.

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