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The Effectiveness of Emotional Intelligence-Based Intervention on Enhancing Adaptive Behaviors of Educable Intellectual Disabled Children

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Abstract: Emotional development in children with intellectual disabilities, from a comparative perspective with "normal" children is a study that has emerged as a need to deepen knowledge in this area.Therefore, the current study aims at investigating the effectiveness of emotional intelligence-Based intervention on enhancing adaptive behaviors of educable intellectual disabled students. To achieve the study objective, Vineland Adaptive Behavior Scale (VABS) was used to assess educable intellectually disabled children in their personal and social function.The final sample included 15 educable mentally retarded children in Kuwait. Means of chronological age at the date of assessments were 7.3 with age ranging between 6.6 and 8.2 years.The quasi-experimentaldesign with a pre-test, post-test and follow-up testhas been adopted for its suitability for the current study. Results of the study showed that there are statistically significant differences in the mean scores of the experimental and control groups in the post-test of Vineland Adaptive Behavior Scale in favor of the experimental group. Whereas, no statistical differences were detected in the mean scores of the experience group in the posttesting and follow-up testing of adaptive behavior due to the lack of further experimental treatment. Based on the study findings, it is recommended that emotions awareness-based strategies, such as multiple intelligences-based intervention, should be extensively used with children with intellectual disability alongside their disability degree; mild, moderate, severe and profound, as well as autistic children.

Key words: Emotional Intelligence-Based Intervention (EIBL); Adaptive Behaviors; Educable Intellectual Disabled Students

I. INTRODUCTION

Intellectual disability is one of the issues that researchers have to address. It has been concerned over time, because of its prevalence and the multiplicity of disciplines that are studied and researched, as well as a multiplicity of entities and groups that are affected and affected by them. By definition, intellectual disability is a condition in which the general intelligence of a person is significantly below average, with some deficiencies in functioning and adaptive behaviour occurring during the growth period and before the age of 18.(Sadock & Ruiz, 2009; Langdon, Clare & Murphy, 2010).

Disability usually happens suddenly and unexpectedly as an undesired incident. According to statistics issued by the World Health Organization, a disabled child is born every 8 minutes in the world (World Health Organization, 2011). Three to seven children per 1000 are born with intellectual disability (Mugno, et al., 2007). In developing countries, 10 to 15 per cent of people are affected by disabilities, with 1 to 3 per cent suffering from intellectual disability (Taghizadeh & Asadi,2015). Intellectual Disability includes individuals with an IQ of less than 70 with impaired adaptive function that occurred before the age of 18 years(Fairthorne, et al., 2015).

Individuals with intellectual disability not only suffer physical problems but they also suffer several mental problems. Their mental health problems are even more likely to go unrecognized, despite the well-established relationship with intellectual disability. Community-based studies suggest that 35–40% of children and adolescents with intellectual disabilities have a diagnosable mental health disorder, which is five times the rate among children in the general population (8%). The rate among children with moderate to severe intellectual disabilities is as high as 50%. Increased prevalence is particularly marked for autistic spectrum disorder, hyperkinetic and severe stereo-moving disorders and behavioraldisorders (Emerson &

Hatton, 2007).The reported rate of pervasive developmental disorders in children and adolescents with intellectual disabilities is between 7.8% and 19.8%, while autism, using the narrowest definition, is associated with intellectual disability in 70% of cases (de Bildt, et al., 2003).

Another important issue is the challenging behaviour of around 45 per cent of children and adolescents with intellectual disabilities, including aggressive, destructive, thought-provoking, self-injurious, sexually inappropriate, noisy and hyperactive behaviour, or other types of disruptive and socially inappropriate behaviour (Gavidia-Payne, 2002). This challenging behaviour is a complex combination of symptoms of multiple origin precipitated by communication difficulties, physical and mental illness and other environmental influences. Understanding the complex interplay between factors that cause or cause challenging behaviour is a sensitive but very important task, as failure may lead to overuse of medication or unnecessary placement. The behaviour of the challenge is the most common reason for these children to be referred to long-stay psychiatric or residential facilities, often far from their families. Appropriate treatment requires comprehensive knowledge and appropriate assessment skills, which are not always available (World Health Organization,2010).

Several teaching and intervention strategies can be utilized to improving academic and developmental skills of individuals with intellectual disabilities. One of these approaches is the use of Multiple Intelligence-based intervention, according to Gardner (1999:142-144), Multiple Intelligence-Based Instruction as a tool through which any content area can be conveyed to students by utilizing their different inner capacities, abilities or intelligence. The use of this type of instruction is addressed by many students' intelligence as students participate in various activities.The concept of intelligence is complex and can be manifested in various phenomena of person's behavior. The term, intelligences, passes through various stages of development that can be traced back to the Greeks.

Multiple intelligences are a collection of intellectual abilities a person possess in the form of a set of mental abilities and abilities, and each of them. The person has this collection of multiple intelligences, but in variable proportions and variations vary from one to the other, and the way in which they vary. Each individual uses these intelligences to determine what is appropriate a way to achieve his goals (Youssef, 2017). It is a form of intelligence that works hand in hand with the individual's mental intelligence, where psychologists and sociologists have recognized that managing emotions is a powerful tool and classified as an independent form of intelligence (James, 2017) referring to the individual's ability to overcome feelings of internal pain, sadness, anger, and communication with others (Dumitrascu, 2017). Multiple intelligences-based intervention includes the individual ability to sympathize with others and understand what they feel makes the individual loved (Schmidt, 2016), and to help the individual make positive changes in his or her life, because low emotional intelligence does not mean low mental intelligence (Richards, 2016).

Intelligence and talent-based intervention may help to a large extent on developing affective and social skills of individuals with mild and severe intellectual disability, it also helps in developing life skills and adaptive skills. Adaptive behavior can be understood as a measured construct that reflects real-life functioning. In contrast to the assessment of other abilities, such as cognitive or linguistic functioning, the measured adaptive function represents a typical performance rather than an individual's potential capability, i.e., what a person does on a daily basis as opposed to what a person is capable of doing under optimal conditions. Adaptive behavior is viewed on the basis of the day-to-day activities necessary to take care of oneself, communicate and get along with the rest (Reichow, et al., 2011). Adaptive behavior assessment encompasses tasks that are routinely carried out by individuals in different areas of daily functioning, such as communication, daily living skills, social interaction and motor skills (Sparrow, et al., 2005).

1.1 Emotional Intelligence

Howard Gardner of Harvard University published his renounced book, Frames of Mind, in 1983. This book is announcing the birth of Gardner's revolutionary theory of multiple intelligence. Gardner opposes the traditional unitary concept of intelligence proposed by Spearman, Terman and other researchers who view intelligence as a general capability that can be assessed through the use of IQ tests.

According to Lazear (1999), Gardner sees this single entity or a general factor as an elusive concept. In his view, IQ tests restrict intelligence to a very narrow track, i.e., those tests measure only linguistic and mathematical intelligence. Those who adopt the traditional concept of intelligence cannot explain the

following phenomena: 1) some close their eyes and try to imagine a man and a woman walking around, 2) some of them draw pictures or stick figures on their paper, 3) some people want to get up with a partner and step out of the room, 4) others try different mathematical formulas, equations and calculations, usually working with an x-factor, 5) some even tried to beat out the rhythm of the steps with their hands on the tabletop or their lap, 6) others simply sit down and meditate on the problem, hoping that the answer will suddenly come from within themselves, 7) some simple people cannot resist discussing the problem with their neighbors, 8) and, the others want to get out of the door and find a 2/3 to 3/3 pattern in nature (Lazear, 1999).

Gardner worked on the theory of multiple intelligences by investigating how the brain works. His investigations led him to the conclusion that the brain works in two ways: first, looking at people with normal, undamaged brains; and, second, looking at people with damaged brains. This result leads him to the conclusion that "people have a wide range of capabilities" (Gardner, 1999: 31).Gardner's theory of multiple intelligences depends mainly on paying due attention to the fact that each of us is intelligent in some respects. Every person has certain abilities, talents and gifts of mind that make him unique. This is what urges Gardner (2004b, p.xiii) to say that MI theory is built on the belief that each individual has a rich and differentiated mind; that no two persons have exactly the same cognitive abilities; and that education is most likely to be successful if it pays attention to these individual differences in the course of curricula, pedagogy and assessment (Scapen, 2007:1).

Multiple intelligences theory attracted the interest of thousands of educators across the world. It provides a philosophical and structural framework that helped them pay attention to and deal with the vast range of individual difference they encountered daily in their classrooms. On the contrary, Scapens (2007:1-2) views that MI theory has found a ready audience amongst early childhood and primary school educators, and has been associated with a wide range of positive outcomes across a variety of educational settings, it continues to have little impact on secondary school practice.

According to Moore (2001), the ability to discriminate pleasant from unpleasant emotions is equally accurate for individuals with and without an intellectual disability. However, there are more difficulties for individuals with intellectual disability in labeling/identification of specific emotions.Multiple Intelligences-based intervention has been widely used in improving the skills of individuals with intellectual disability (Pereira & Faria, 2013; Sheydaei, Adibsereshki & Movallali, 2015; Adibsereshki, Shaydaei & Movallali, 2015; Sheydaei, Adibsereshki & Movallali, 2015), their parents and teachers (Aljarboua, Elkhamisi & Alshirawi, 2020).According to Ulutaş& Ömeroğlu(2007) and Koczwara& Bullock (2009), emotional intelligence training is effective in enhancing the ability of individuals to cope with problems of life and relationships with others, and in enhancing communication skills.

1.2 Adaptive Behaviors

The display of adaptive behaviour has been significant throughout the recorded history. The ancient Greeks argued that the ability of individuals to take sufficient care of themselves and engage in community life reliably reflected intelligence and maturity (Clarke, Clerke & Berg's 1985). The development of adaptive behaviors may assist intellectually disabled learners to increase anatomy, co-independence and problem-solving in the home, school and community at large (Lombardi, 2011).Adaptive behavior refers to the effectiveness and degree to which the individual meets the standards of personal and social independence, responsibilities expected of his and her cultural group (Ditterline, et al., 2008), person's ability to meet his or her personal needs and to address the needs of his or her environment (Nihira,Leland & Lambert, 1993), a group of skills that enables individuals to function effectively in different contexts of life (i.e., home, school, community, etc.) (Harrison & Oakland, 2003).

Grossman (1983), argues adaptive behaviorsindicate the effectiveness and extent to which the individual meets the standards of personal independence and social responsibility expected of his or her cultural group, hence, these behaviors include what the individual does to care for himself or herself and others and to relate to others. Adaptive behaviors are important skills that children need to develop in order to function independently. In addition, adaptive skills consist of the ability to perform daily tasks and activities by translating cognitive potential into everyday skills (Pugliese et al., 2015; Sparrow & Cicchetti, 1984).

Everyday skills that are considered to tap adaptive behaviors are effective communicative skills, community involvement and the development of social relations (Klin et al., 2007). The Vineland Adaptive Behavior Scales (VABS, Sparrow, Balla, & Cicchetti, 1984; VABS-II, Sparrow, Cicchetti, & Balla, 2005) are the most popular. A widely used measure of this adaptive behavior in childhood and adolescence focuses mainly on communication, socialization and daily living skills.

According to American Association on Mental Retardation (2002), adaptive behaviors include skills an individual usually use to meet personal needs as well as to address natural and social needs in one's environment, including the skills needed to independently care for one's personal health and safety, dress and bathing, communicate, display socially appropriate behaviors and academic skills, effectively engage in recreation work, and engage in community work (Lambart,1974). The American Association for Intellectual and Developmental Disabilities has adopted a model of adaptive behaviour consisting of 10 skills; communication, community health, functional academics, home and school life, health and safety, self-management, social work; (American Association on Mental Retardation, 2002).

Traditionally, the assessment of adaptive behavior has been linked to the eligibility criteria for intellectual disabilities (American Psychological Association, 2000). A wider range of adaptive behavioral measures was developed and disseminated in the 1960s (e.g., Allen et al., 1970; Balthazar & English, 1969; Leland et al., 1967). Indeed, by the end of the 1970s, the number of adaptive behavioral measures available, mostly interviews or observational in format, had increased, including checklists on vocational behaviors (Walls & Werner, 1977). Measures developed in the 1960s have generally been updated in subsequent editions with enhanced psychometric characteristics and scores (e.g., Sparrow & Cicchetti, 1985).

With the publication of the 1959, manual of the American Association of Mental Deficiency, the assessment of adaptive behavior became a formal part of the diagnostic nomenclature for mental retardation (Heber, 1959). The 1961 Manual (Heber, 1961) discussed adaptive behavior with regard to maturation, learning and social adaptation. This framework, reiterated in 1983, described the limitations of adaptive behavior consisting of "significant limitations on the effectiveness of an individual in meeting the standards of maturation, learning, personal independence or social maturity expected for his or her age and cultural group, as determined by clinical assessment and, generally, by standardized scales" (Grossman, 1983, p. 11).

Researchers investigated the display of adaptive behavior in persons with various disabilities, including those with Down Syndrome and learningdisability (Harrison & Oakland, 2003). Kaur (2005) indicates that intellectually disabled learners can gradually acquire adaptive behavioral skills if they are exposed to a favorable environment, trained personnel and the effective use of teaching methods. The degree to which, and the effectiveness with which, an individual meets the standards of maturation, learning, personal independence and/or social responsibility expected for his or her age and cultural groupalso fall under the adaptive behaviors (Solomon, 2017).Hunt and Marshall (1994)noted that adaptive behavioral skills, such as personal and social competence, are weaker in the mentally deficient population, and these individuals have difficulty adapting to the needs of daily living.

Adaptive behavior has been an integral part of the long history of, and definition of, mental retardation, though sometimes unintended. In the 19th century, mental retardation was recognized mainly in terms of a number of factors, including environmental awareness and understanding, ability to engage in regular economic and social life, dependence on others, ability to maintain one's basic health and safety, and individual responsibility (Brockley, 1999). Today, the fulfillment of these personal and social responsibilities, as well as the performance of many other culturally typical behaviors and roles, constitutes adaptive behaviour.

In the recent Manual of Diagnosis and Professional Practice in Mental Retardation (Jacobson & Mulick, 1996), Division 33 of the American Psychological Association set out a definition of mental retardation that emphasizes significant limitations in intellectual functioning and adaptive behaviour. The definition also considers adaptive behavior as a multidimensional construct, in that the definition is extended to include "two or more" factor scores below two or more standard deviations. There is minimal reference to adaptive behavioral problems in the description of mild mental retardation, except for the inclusion of "low academic achievement." (National Research Council (US) Committee on Disability Determination for Mental Retardation, 2002)

1.3 Educable Intellectual Disabled Students

For many years, it has been believed that individuals with intellectual disabled have been unable to learn and livein isolation (Johnson, et al., 2017). At present, social attitudes have changed and it is recognized that individuals with intellectual disabled can learn if they are properly taught (Adibsereshki, et al., 2015). In addition, intellectually disabled students often have problems with motor activities which are constantly reported by parents and professionals (Tolmie, Fragile, 2002; Hessl, et al., 2009; Yuhas,et al. 2011; Ashori, Norouzi& Jalil-Abkenar,2018).

Intellectual disability is generally characterized by: emotional and social maladjustment; reduced vocabulary; simple and limited interest; slow response; short attention span; inability to generalize and abstract; limited initiative; lack of originality; lack of self-criticism; lack of language skills, requiring simple, detailed and specific Issues; delays and precariousness of cognitive acquisitions; the mismatch between the contents of their normal relational knowledge and the activities of a dysfunctional procedure that, assuming the maladjustments, articulates and combines them in atypical ways; the construction of a disorganized and inadequate cognitive function within a constructivist perspective (Barbosa, 2007).

Professionals expressed early caution about diagnosing intellectual disability solely through the use of intelligence testing, especially in the absence of more detailed information on the individual's adaptation. In addition, the mitigation of current circumstances (not speaking English) or past history (absence of schooling) has often been ignored in the early years of intelligence testing (Kerlin, 1887; Wilbur, 1882). At the turn of the century, intelligence assessment focused primarily on moral behavior (which is largely consistent with the current construction of social competence) and on the pragmatics of basic academics (National Research Council (US) Committee on Disability Determination for Mental Retardation, 2002).

Kimengi et al (2015) tried to list the factors inhibiting mentally challenged skills acquisition. Findings of the study show that parents and the community were not fully involved in the acquisition of learning skills among mentally challenged students. This implies that most families did not cooperate with their children, especially in the learning processes that resulted in poor academic performance of the pupils. But those families who cooperated with their children in learning are doing well in academic achievement.

Developing academic, social and emotional skills besides providing them opportunities to acquire desirable behaviors of intellectually disabled students necessitates using distinguished teaching strategies.According to Ainscow (2003), regular methods without adaptations, material adaptations, multi-level curricula and alternative curricula can be implemented. A wide variety of teaching methods and strategies can be used in teaching students with intellectual disabilities to meet their needs. Task analysis can be very useful in teaching learning with mental disabilities in inclusive settings (Slavin, 1996; Mpofu, 2000; Forlin, 2006).This means that good teaching methods used by teachers to teach children with mental retardation make it possible for teachers to manage classes properly in order to facilitate lessons. Besides, multiple intelligence-based teaching strategies and remedial intervention programs may help improving their skills, develop their desirable behaviors and eliminate their undesirable behaviors (Adibsereshki, Shaydaei & Movallali, 2015; Sheydaei, Adibsereshki & Movallali, 2015;Aljarboua,Elkhamisi & Alshirawi, 2020;Alibakhshi, et al., 2018).

With the aim of devising effective approaches for cultivating adaptive and life skills, interventions that can be administered to improve outcomes for young persons with intellectual disability, this study investigates the effect of a multiple intelligences-based classroom intervention on improving adaptive skills of pupils with moderate to severe intellectual disability.

II. Methods

The method used in this study was quasi-experimental with a pre-test, post-test and follow-up test. The Wilcoxon and Mann Whitney scales were used for statistical analysis in this study.For both groups (experimental and control), the pre-test was performed before the intervention began and the post-test was performed after the intervention. Six weeks after the post-test, a follow-up test was conducted by the experimental group.

Participants

The final sample included 15 educable mentally retarded children in Kuwait. Means of chronological age at the date of assessments were 7.3 with age ranging between 6.6 and 8.2 years.Parents ofeducable mentally retarded children of the sample of the study – in both experimental and control groups – responded to The Vineland Adaptive Behavior Scale (VABS) in the 3 testing sessions; pretesting, posttesting, and follow-up test.

The children's family characteristics were mostly middle to upper class, with at least an undergraduate or better education, of which about 13.3% per cent had a master's degree or other postgraduate degree.The majority of parents were between 29 and 37years of age. Most of them (73,33%) were still married (not divorced) and in a stable relationship. Three parents (20%) were divorced and only one mother (6.67%) was a widow. Generally speaking, the majority of parents who participated in this study were stable families with fathers and mothers living together (60oo%), while the rest were mothers alone (26.67%) and twofathers alone as caregivers for ID children (13.33%).

Measures

*The Arabic version of the Stanford-Binet Intelligence Test (SBITA), the fifth edition (*Farag,2011).,has been used. In Arab countries, the intelligence test was standardized for use several years ago with good reliability and validity (Hanoura &Hamid,2002). The SBITA is producing standard scores with a mean of 100 and a standard deviation of 16. SBITA is designed to assess intelligence in four areas, including:Abstract and Visual Reasoning, Quantitative Reasoning, Verbal Reasoning and Short-Time Memory. The total IQ quotient was classified as: mentally retarded (≤ 67), borderline intelligence (68-78), below average (79-88), average (89-110), above average (111-120), excellent (121-131) and genius (≥ 132).

Vineland Adaptive Behavior Scale: The Vineland Adaptive Behavior Scale (VABS) was designed to assess disabled and non-disabled persons from birth to adulthood in their personal and social function. VABS is organized around four behavioral domains: communications, daily livingSkills, socialization, motor skills. In our study, the questionnaire was completed by one of the parents of the children with intellectual disability. The three domains considered for this study were:

1. Domain of communication: a) Receptive: if the person listens and pays attention and what he/she understands.

b) Expressive: what the person says, how he or she uses words and sentences to gather and provide information to express things.

c)Written: what the person understands about how to use letters to make words, and what he/she reads and writes.

2. Socialization Domain: a) Interpersonal relationships: how does a person interact with others?

b) Play and leisure time: how do you play and use leisure time?

3) Coping skills: how does the individual take responsibility and be sensitive to others?

3. Domain of daily living skills: a) Personal: How the person eats, dress up

In the current study, reliability was obtained from the retesting of the major areas of the scale of 0.83–0.88.Validity was measured by the contents of the scale, the progress of the developmental scores of Vineland in different age groups and the mean score of 50 samples (25 with ID and 25 with normal ones). The increase in scores for different age groups and the significant difference in the mean score of the two groups (children with and without disabilities) indicate the validity of the scale contents.

III. RESULTS:

Table 1 Difference between the scores of experimental and control groups,after the intervention, of experimental groups and control group.

Subscales	Groups	Before intervention			After intervention			U	W	Z	p-Value
		M.	Mean of Squares	Sums of Square	M.	Means of Squares	Sums of Square				
Communication	Control	13.00	3.00	15.0	20.00	8.00	40.00	1	15	2.627	P<.001
	intervention	13.20	3.00	15.0	53.40	3.00	15.00				
Daily living skills	Control	18.20	3.00	15.0	22.40	8.00	40.00	1	15	2.619	P<.001
	intervention	18.00	3.00	15.0	67.20	3.00	15.00				
Socialization	Control	16.00	3.00	15.0	21.60	8.00	40.00	1	15	2.627	P<.001
	intervention	16.40	3.00	15.0	49.00	3.00	15.00				
Motor	Control	7.00	3.00	15.0	11.60	8.00	40.00	1	15	2.619	P<.001
	intervention	7.20	3.00	15.0	31.00	3.00	15.00				
Maladaptive	Control	30.80	3.00	15.0	38.60	8.00	40.00	1	15	2.635	P<.001
	intervention	31.00	3.00	15.0	9.20	3.00	15.00				
Total score	Control	85.00	3.00	15.0	104.20	8.00	40.00	1	15	2.627	P<0.001
	intervention	85.80	3.00	15.0	210.2	3.00	15.00				

Table 1 shows a significant difference between the scores of experimental and control groups,which means after the intervention, students in experimental groups had higher scores than control group.The mean scores in experimental groups show that students' scores in pre-test and post-test of adaptive behavior (85.00–104.20, 85.80–210.20). The mean scores in follow-ups were slightly lower than post-tests. These findings are shown in the Fig. 1

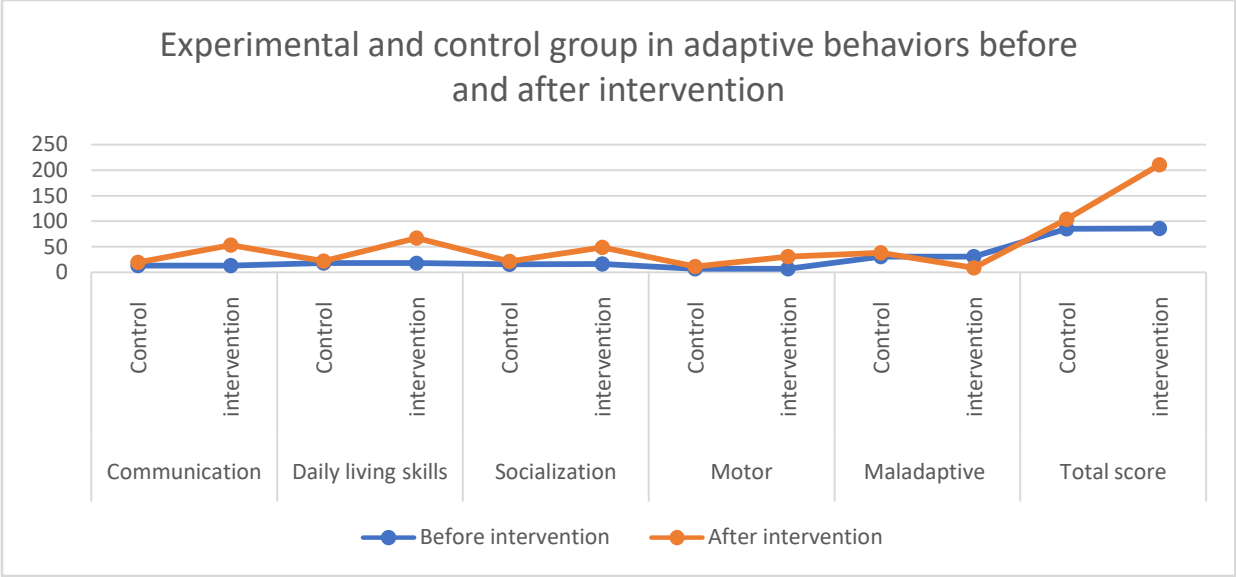

Fig. 1Experimental and control group in adaptive behaviors before and after intervention

Table 2.Differences between the scores of children of the experimental group, after the intervention, in the posttesting and follow-up testing.

Subscales	Testing	Values		Mean	Mean of Squares	Sums of Square	Z	p-Value
Communication	Posttesing	Positive	5.00	50.80	3.00	15.00	1.060	P<0.144
	Follow-up	Negative	0.00	51.40	0.00	0.00		
Daily living skills	Posttesing	Positive	5.00	64.00	3.00	15.00	1.032	P<0.151
	Follow-up	Negative	0.00	63.20	0.00	0.00		
Socialization	Posttesing	Positive	5.00	48.80	3.00	15.00	1.490	P<0.068
	Follow-up	Negative	0.00	49.00	0.00	0.00		
Motor	Posttesing	Positive	5.00	30.40	3.00	15.00	1.450	P<0.073
	Follow-up	Negative	0.00	31.30	0.00	0.00		
Maladaptive	Posttesing	Positive	5.00	9.20	3.00	15.00	1.121	P<0.131
	Follow-up	Negative	0.00	10.80	0.00	0.00		
Total score	Posttesing	Positive	5.00	210.20	3.00	15.00	1.625	P<0.052
	Follow-up	Negative	0.00	205.80	0.00	0.00		

Table 2 shows that there is no statistically significant difference between the scores of experimental in the posttesting and follow-upsessions after the intervention, students in experimental group in the fellow-up session had relatively similar scores to the posttesting session.The mean scores of the experimental group show that students' scores in the post-test and follow-up of adaptive behavior are similar (210.20–205.80). The mean scores in follow-ups were slightly lower than post-tests. These findings are shown in the Fig. 2

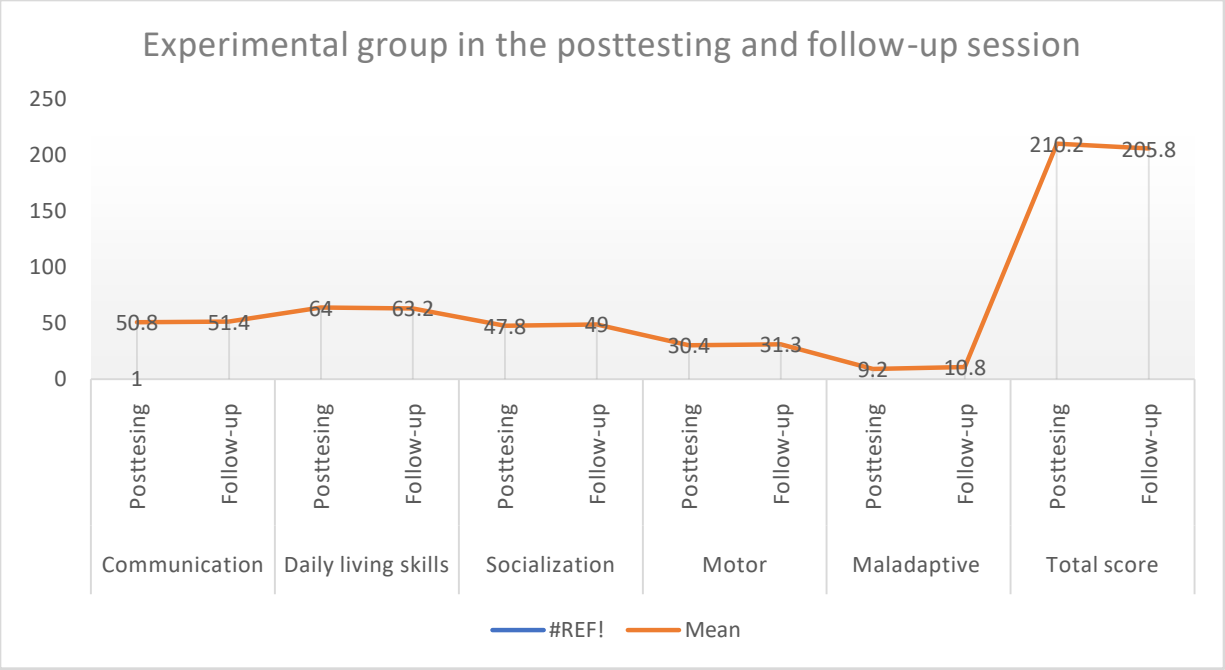

Fig. 2 Differences of the experimental group scores in the posttesting and follow-up sessions

IV. DISCUSSION

It seems that emotional awareness and the ability of emotional intelligence can make a significant contribution to the behavioral functioning of children. As results of the current study have shown, the experimental group had higher scores of adaptive behaviors than the control group, which means that the emotional intelligence-based intervention had some positive effects on certain aspects of the adaptive behavior of educable intellectual disabled children. Some studies have worked on emotional intelligence-basededucation programs (Finley et al., 2000; Gore, 2000; Kolb and Weede, 2001) and have concluded that children who have experienced these types of programs have a higher EI , and some have argued that the ability of children to recognize , understand and manage emotions could be enhanced by these programs (Ulutas and O¨ merog lu, 2007; Bennet and Knight, 1996; Bruno et al., 2002;Grinspan et al. 2003).

For example, Downs and Strand (2008) designed an emotional recognition training program for young children with developmental delays, and the results of their studies showed a significant increase in emotional recognition skills and higher scores on emotional comprehension skills. The study of Adibsereshki, Shaydaei & Movallali (2016) indicated that the EI intervention program had created a significant difference between the scores of the experimental and control group in the participants' adaptive behaviors in terms of two communication and social skills, but it is not true for the daily life skills.Nieuwenhuijzen and Vriens (2012) concluded that inhibition, working memory, emotional recognition and interpretation predict the social processing of children with intellectual disability, particularly emotional recognition and interpretation. They said that good interpretation and emotional recognition predict social problem-solving skills.

In addition, the study of Sheydaei, Adibsereshki & Movallali (2015) indicated that the Emotional Intelligence Training was effective on improving communication skills in students with intellectual disabilities.Hassani et al. (2011) indicated that emotional intelligence is effective on enhancing interpersonal issues, with results indicating a significant relationship between the majority of the components of the EI and interpersonal issues. Some aspects of interpersonal difficulties could be predicted by the different components of emotional intelligence. Emotional intelligence, with support for mental health, reduced interpersonal problems and improved quality of social and interpersonal relationships. In fact, the ability to recognize facial expressions

and emotional reactions to these expressions and emotions is essential to people's interactions; individuals with intellectual disabilities are generally deficient in these skills.

Nichols et al. (2016) studied communication problems in children with autism and concluded that these children have problems with emotional recognition and that they can be treated with emotional intelligence training. Emotional intelligence training teaches students how to have effective communication skills and how to communicate with others without problems. During training, students could evaluate their skills through activities such as role-playing, games and the use of flash cards, which were designed to teach them these skills and increase interaction between them.Moore (2001) has indicated that individuals with mild and moderate intellectual disability may recognize and that the facial label may also be a reason. Due to the high incidence of day-to-day living skills, these tasks may be more noticeable for parents and more of their children are likely to be expected especially after the intervention program (Taylor et al. 2010).

As indicated in the findings of this study, the follow-up scores were slightly lower than the post-test scores. It seems that passing times could undermine the impact of the multiple intelligences-based intervention programs on improving educable intellectually disabledchildren. Individuals with intellectual disabilities have memory problems that should be considered in all training programs (Adibsereshki, Shaydaei & Movallali, 2016).Therefore, in order to have longer and stable effectiveness of the multiple intelligence-based intervention, it is better to continue these types of training intervention programs and to apply certain strategies that could help participants' to remember that they have studied to achieve learning stability, for example; to expose people with educable intellectual disabled students to deep rather than shallow encoding, to use visual scaffolding when teaching verbal material, to memory tests that are based on recognition instead of free recall.

V. Conclusion

Emotional intelligence training can improve intellectual disabled students' communicative functions by familiarizing them with interpersonal skills, social skills and basic knowledge of verbal and non-verbal communication components (Behpajoh, Afroz&Lavasani,2010). The emotional intelligence intervention process was designed to help these students deal with their problems and to help them cope with the difficulties associated with intellectual disability and to live their roles effectively and flexibly. Correct perception of the emotional self and others and empathy (a fundamental component of the EI) would deepen interpersonal communication, strengthen protection, feelings and seek help from others, all of which would lead to an increase in mental health (Shahni, et al. 2009).

Based on the findings of this study, emotional intelligence training has enhanced communication skills for children with intellectual disabilities. It seems that this kind of training could be very beneficial to children, teachers,professionals and clinicians could therefore use them in their practice. However, the study had some limitations, such as the lack of access to an appropriate instrument for measuring the level of emotional intelligence of children with intellectual disability, and relied on the observation of the trainer. The researcher has tried their best to control the variables that could affect the results of this study, but they may not have been able to control them all.

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