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Assessing the Level of Life Skills Among Children With Mild and Moderate Intellectual Disabilities in the United Arab Emirates

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Abstract

The current study aimed to assess the level of life skills among children with mild to moderate intellectual disabilities in the United Arab Emirates. The study included 80 children, 50 of whom had mild intellectual disabilities and 30 of whom had moderate intellectual disabilities. To achieve the study objective, a life skills scale was constructed and its validity and reliability were verified. To answer the study questions, a descriptive survey approach was used, and arithmetic means, standard deviations, and t-test were used to analyze the data. The results indicated the weakness of life skills possessed by children with intellectual disabilities. The results also revealed that children with moderate intellectual disabilities showed greater weakness than children with mild intellectual disabilities. The study recommended the necessity of conducting a comprehensive assessment of the special needs of children with intellectual disabilities, assessing the levels of need for support, and providing various services according to the nature of the special needs and the various levels of severity of intellectual

Key words: Mild and moderate intellectual disability; Life skills; United Arab Emirates

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INTRODUCTION

Intellectual disability (ID) or (Intellectual Developmental Disorder) (IDD) is a psychiatric disorder and a risk factor for comorbid psychiatric disorders in children and adolescents (Siegel et al. 2020). Currently, the focus has shifted to the concept of disorder, with the inclusion of IDD in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) marking a shift from a focus on disability to a focus on disorder (medical/neurobiological) (Greenspan, & Woods, 2014). Intellectual disability refers to a condition characterized by significant limitations in both intellectual functioning and adaptive behavior, beginning before the age of 22. Intellectual functioning refers to general mental ability, such as learning, reasoning, and problem-solving, and is measured by an intelligence test. Adaptive behavior refers to the set of conceptual, social, and practical skills that people learn and practice in their daily lives. Conceptual skills include language, reading, and writing; concepts of money, time, and numbers; and self-direction. Social skills include interpersonal skills, social responsibility, self-esteem, and others. Practical skills include activities of daily living, vocational skills, health care, travel/transportation, schedules/routines, and others (American Association on Intellectual and Developmental Disabilities (AAIDD), (2021, 2025).

Intellectual disability often results from a variety of causes, including genetic, acquired, and environmental factors. Although the severity of Intellectual disability varies, the level of mental functioning is below normal (Katz & Lazcano-Ponce, 2008). Currently, the field of intellectual and developmental disabilities is undergoing a major transformation that includes an integrated approach, particularly with regard to human rights and legal aspects, eligibility for services and support, and a focus on individualized support provided within inclusive community settings (Schalock, Luckasson, & Tassé, 2019). The prevalence of Intellectual disability varies

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from one country to another, and this may be attributed to differences in study environments, methodologies, definitions of intellectual disability cases, and the accuracy of the questionnaire questions used to determine the presence of Intellectual disability (McBride et al. 2021). In 2023, the Centers for Disease Control and Prevention (CDC) reported that nearly 1 in 10 children aged 3 to 17 in the United States had been diagnosed with a developmental disability, including intellectual disability. The prevalence of intellectual disability varies by sex, age group, race, and Hispanic origin. On the other hand, the World Health Organization (WHO) announced in 2023 that announced that approximately 16% of the world's population suffers from severe disability, including people with intellectual disabilities. Furthermore, studies indicate that the prevalence of varies between 1% and 3% in Western countries. However, many studies suggest that the prevalence in developing countries may be higher, reaching between 10 and 15 cases per 1,000 children.

Intellectual disability is often diagnosed during the developmental period and is characterized by significant limitations in both intellectual functioning and adaptive behavior, as demonstrated by conceptual, social, and practical adaptive skills (Tassé, Luckasson, & Schalock, 2016). Evaluation is a fundamental step in delivering outcomes-based services. Data is collected and analyzed, and decisions are made regarding the type of services needed and where they should be delivered (El-Zraigat, 2015). Therefore, assessing support needs is essential for providing services to people with intellectual and developmental disabilities. Services should be structured with consideration for the support people need to improve their quality of life and realize their rights on an equal footing with others. Verdugo et al. (2020) findings indicated that the level of intellectual disability, adaptive behavioral skills, and medical and behavioral needs influence the support needs of people with disabilities, highlighting the importance of assessment and planning for intervention and community integration services. Community integration improves opportunities for social interaction and develops and acquires social skills, which positively impacts the quality of life for this group of people (Louw, Kirkpatrick, & Leader, 2020).

Intellectual disability is characterized by significant deficits in interaction, communication, and social competence, which are among its most prominent features (Dučić, Gligorović, & Kaljača, 2018; Bielecki, & Swender, 2004). Dučić, Gligorović, and Kaljača (2018) indicated a relationship between working memory and self-regulation on social skills in people with moderate intellectual disability. Self-regulation skills were assessed using a behavioral multiple task battery, while social skills were also assessed using the Socialization subscale of the Adaptive Behavior Rating System. Studies have also shown a relationship between social

skills and maladaptive behaviors, and that targeted social interventions can improve the social competence of individuals with intellectual disabilities. Effective training is based on accurate assessment procedures that reflect the reality of the skills practiced and the needs and quality of interventions. These skills are often assessed using procedures such as behavioral observations, role-playing, and checklists (Bielecki, & Swender, 2004).

The results also indicated that time management had a greater impact on social skills. Thus, targeting social skills through training improves them and encourages their development. The results of the study by Adeniyi and Omigbodun (2016) indicated that classroom interventions significantly improved the social skills of students with intellectual disabilities who participated in this study. The study also recommended the development of social skills curricula and their integration into routine teaching for students with developmental disabilities. Tassé, Luckasson, and Schalock (2016) also indicated a strong correlation between intellectual performance and adaptive behavior.

The diversity and extent of disabilities in individuals with severe and profound intellectual disability impact their ability to complete valid behavioral assessments. The presence of language and motor impairments may also impact an individual's ability to perform a task, leading to an underestimation of their true abilities. This article provides an overview of assessment protocols used by various groups working with individuals with severe and profound intellectual disability (DiStefano, Sadhwani, & Wheeler, 2020). Many studies have aimed to assess the performance level of children with intellectual disabilities. King et al. (2013) confirmed that children with intellectual disabilities have weak participation in physical and sports activities, while their participation in recreational activities was greater compared to their peers with normal development. The study also showed that children with intellectual disabilities participated less in skill-based activities, preferring recreational and selfdevelopment activities. This difference is often attributed to lower physical, cognitive, and social skills in children with intellectual disabilities, or may be due to a lack of supportive environments (King et al. 2013). Motor skills are often assessed using reliable measures whose results reflect the reality of motor skills (Wessels et al. 2023). A study by Winders, Wolter-Warmerdam, and Hickey (2019) showed that children with Down syndrome have poor motor skills compared to the motor development of children who develop normally.

On the other hand, Taylor's (2002) study confirmed the high rates of aggression among people with intellectual disabilities, which is often a primary reason why people with intellectual disabilities receive specialized psychological services to control this type of behavior. The study recommended the need for assessment,

treatment, and therapeutic skills to deal with anger and aggression problems among people with intellectual disabilities. Van Biesen et al. (2023) study also found strong associations between executive function and intelligence in people with intellectual disabilities. The impact of intellectual disability is evident in a marked deficit in intellectual performance and behavioral adaptation. It imposes restrictions on learning processes and developmental milestones, whether social, emotional, behavioral, self-care, problem-solving skills, or others (El-Zraigat, 2012). In order to be able to intervene with the aim of developing the various developmental features, a comprehensive assessment must be conducted and its results used to develop comprehensive and targeted rehabilitation interventions as early as possible after the disability is discovered and identified (El-Zraigat, 2015). Thus, assessment is the primary component of providing targeted services to persons with intellectual disabilities. The current study seeks to assess the life skill performance of children with intellectual disabilities in the United Arab Emirates.

STUDY PROBLEM AND QUESTIONS

Comprehensive assessment is based on collecting diverse information from multiple sources, then analyzing it and making decisions about the nature of specific special needs, the type of services needed, the appropriate location for providing those services, and the components of their provision. Assessment is the first step in providing targeted services. In the current study, the goal is to understand the nature of the special needs of children with intellectual disabilities in order to provide them with the best possible services to achieve the highest level of functional life skills and help them meet the demands of daily activities. Thus, the current study sought to answer the following questions:

- What is the level of life skills among children with intellectual disabilities in the United Arab Emirates?
- Are there statistically significant differences in the level of life skills between children with simple intellectual disabilities and children with moderate intellectual disabilities?

STUDY OBJECTIVES

The current study aimed to assess the level of life skills of children with mild intellectual disability and children with moderate intellectual disabilities in the United Arab Emirates. It also aimed to provide recommendations based on the findings regarding the nature of services that should be provided to this group of children.

STATISTICAL STANDARD

A four-point Likert scale was used in responding to the study tools, assigning each item a score out of four (strongly agree, agree, disagree, strongly disagree), represented numerically (4, 3, 2, 1), respectively. The following scale was adopted for the purposes of analyzing the results:

1.00-2.00: Low 2.01-3.00: Medium 3.01-4.00: High

The scale was calculated using the following equation: Upper limit of the scale (4) - Lower limit of the scale (1)) / Number of required categories (3).

 $(4-1) \div 3 = 1.00$

Then add the answer (1.00) to the end of each category.

LIFE SKILLS SCALE FOR CHILDREN WITH INTELLECTUAL DISABILITIES

The scale was developed based on relevant literature, such as studies DiStefano, Sadhwani, and Wheeler (2020), King et al. (2013), Wessels et al. (2023), Taylor's (2002), Van Biesen et al. (2023), and El-Zraigat (2012, 2015). The scale includes seven main areas, which were responded to using a four-point Likert scale.

RELIABILITY OF THE STUDY TOOL

To ensure the validity of the tool, construct validity was calculated by using the correlation between the item and the dimension. The following table shows the values of the construct validity coefficients for the dimensions of the study tool used.

Table 1 Consistency Coefficient Cronbach's alpha.

Skills	Internal consistency
Self-Care Skills	0.83
Language Skills	0.78
Cognitive Skills	0.82
Motor Skills	0.83
Social Skills	0.79
Academic Skills	0.77
Behavioral Skills	0.79
Total	0.85

Table 1 shows the reliability values of the study tool dimensions. The reliability coefficient for the total score was (0.84) and for the skills it ranged between (0.77-0.83). The Cronbach Alpha indicators above indicate that the study tool generally has a high reliability coefficient and is capable of achieving the study objectives.

CONSTRUCT VALIDITY OF THE STUDY TOOL

To ensure the stability of the tool, internal consistency was calculated using Cronbach's alpha equation. The table below shows these coefficients. These ratios were deemed appropriate for the purposes of this study.

Table 2 Construct Validity Coefficient.

Skills	Construct validity coefficient
Self-Care Skills	0.81
Language Skills	0.77
Cognitive Skills	0.76
Motor Skills	0.75
Social Skills	0.78
Academic Skills	0.75
Behavioral Skills	0.73
Total	0.76

Table (2) shows the construct validity values of the study tool dimensions. The validity coefficient for the total score was (0.76) and for the skills it ranged between (0.73-0.81). The validity coefficients above indicate that the study tool generally has a good and acceptable validity coefficient for study purposes.

PARTICIPANTS

The study included 80 children with intellectual disabilities. The number of children with mild intellectual disabilities was 50, while the number of children with moderate disabilities was 30 as shown in the Table 3.

Table 3
Frequencies and percentages by type of intellectual disability variable

Categories	Frequency	Percentage		
Mild	50	62.5		
Moderate	30	37.5		
Total	80	100.0		

STUDY METHODOLOGY

To answer the study questions, a descriptive survey approach was used, appropriate to the study's objective. The variables included mild and moderate intellectual disability.

DATA COLLECTION

Data was collected using a study tool designed to assess the life skills of children with intellectual disabilities. The children's teachers completed a four-point Likerttype scale to reflect the children's actual skills. The data was then analyzed, and appropriate statistics were used to answer the study questions.

RESULTS

This section of the study presents the findings, organized according to the questions.

Question 1: What is the level of life skills among children with intellectual disabilities in the United Arab Emirates?

To answer this question, means and standard deviations were extracted for the skill level, as illustrated in the Table 4.

Table 4 Means and standard deviations for skill level, arranged in descending order by means.

Rank	Number	Domain	Mean	Standard deviation	Level
1	4	Motor Skills	2.11	0.66	low
2	5	Social Skills	1.85	0.68	low
3	1	Self-Care Skills	1.82	0.68	low
4	7	Behavioral Skills	1.80	0.61	low
5	3	Cognitive Skills	1.39	0.52	low
6	2	Language Skills	1.38	0.54	low
7	6	Academic Skills	1.30	0.58	low

As the means indicated, the difference between the highest and lowest means was 0.26. All average ratings were low.

Are there statistically significant differences in the level of life skills between children with simple intellectual disabilities and children with moderate intellectual disabilities?

To answer this question, means and standard deviations were calculated for the various skill areas according to the type of intellectual disability (mild, moderate). To determine the statistical significance of the differences between the means, an independent sample t-test was used. The following table shows the results of the analysis:

Table 5
Arithmetic means, standard deviations, and t-test for the effect of disability type on study skills, number, arithmetic mean, standard deviation, t-value, degrees of freedom, statistical significance

Life skills dimensions	Type of disability	No.	Means	St.d.	t value	df	Sig.
Self-Care Skills	mild	50	1.95	.76	2.33	78	.024
	moderate	30	1.61	.49			
Language Skills	mild	50	1.52	.58	3.14	78	.003
	moderate	30	1.12	.35			

Life skills dimensions	Type of disability	No.	Means	St.d.	t value	df	Sig.
Cognitive	mild	50	1.54	.55	2 40	78	.001
Skills	moderate	30	1.11	.35	3.49		
Motor Skills	mild	50	2.22	.59	2.50	78	.012
	moderate	30	1.88	.67	2.59		
Social Skills	mild	50	2.05	.69	3.55	78	.001
	moderate	30	1.52	.57			
Academic	mild	50	1.45	.68	2.6	78	.012
Skills	moderate	30	1.11	.305			
Behavioral Skills	mild	50	1.91	.63	2.12	78	.038
	moderate	30	1.62	.49	2.13		
Total Grade	mild	50	1.81	.251	7.20	70	000
	moderate	50	1.96	.755	7.30	78	.000

Table 5 results show that there are statistically significant differences at the level ($\alpha=0.05$) between individuals with mild mental disability and individuals with moderate mental disability in all skill areas, as well as in the total score. All statistical significance values were less than (0.05). The differences were in favor of individuals with mild mental disability, as they recorded higher averages in all areas.

STUDY LIMITATIONS

The limitations of the current study included the study location, mild to moderate intellectual disability, and the target age group.

DISCUSSION OF THE RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

The results clearly indicated the weakness of life skills possessed by children with intellectual disabilities. This result is attributed to the nature of intellectual disability, as deficits in intellectual abilities are considered one of its most prominent characteristics. This deficit negatively impacts the acquisition of life skills. Intellectual disability places significant limitations on skill acquisition. Because skills require interaction and communication with the surrounding environment, the intellectual disability code restricts this interaction, which is necessary for skill acquisition and development. Furthermore, intellectual disability, no matter how mild, makes learning difficult and negatively impacts the motivation necessary for learning, growth, and skill acquisition (El-Zraigat, 2012). King et al. (2013) stressed that children with intellectual disabilities have weak participation in physical and sports activities, while Winders, Wolter-Warmerdam, and Hickey (2019) reported that children with Down syndrome have poor motor skills. Furthermore, Taylor's (2002) suggested high rates of aggression among people with intellectual disabilities. The results also indicated that children with moderate intellectual disability demonstrated greater weaknesses in life skills than children with mild intellectual disability. This result is logical, as the greater the severity of the disability, the greater the severity of the skill deficit, and consequently, the need for more intensive services and greater support increases.

These results are attributed to the fact that children with mild intellectual disability possess higher cognitive and functional abilities compared to children with moderate intellectual disability, which positively impacts their performance in the various life skills.

Based on the results, the current study recommends the following:

Conducting a comprehensive assessment of the special needs of children with intellectual disabilities on a regular basis, in accordance with the developmental requirements of the various levels of disability severity.

- Assessing the levels of support needs.
- Providing diverse services based on the nature of the specific needs and the various levels of intellectual disability severity.
- Providing appropriate support for the special needs of children with intellectual disabilities.
- Educating families about the needs of their children with intellectual disabilities and involving them in assessments and decisions about necessary services and support levels.

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