Dirasat: *Educational Sciences*, Volume 48, No. 4, 2021

Deanship of Scientific Research

Levels of Support for People with Intellectual and Developmental Disabilities in Light of the Gender, Age, and Degree of Disability

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Received: 6/6/2020
Revised: 8/9/2020
Accepted: 3/1/2021
Published: 1/12/2021

Citation: Atawi, R. (2021). Levels of Support for People with Intellectual and Developmental Disabilities in Light of the Gender, Age, and Degree of Disability. *Dirasat: Educational Sciences*, *48*(4), 463-475. Retrieved from https://dsr.ju.edu.jo/djournals/index.php/Edu/article/view/2948

Abstract

The current study aims at identifying support levels for an individual with intellectual and developmental disabilities in the light of their age and degree of disability variables. The sample of the study encompassed (40) individuals with intellectual and developmental disabilities aged (5-16 years) who are enrolled in special education centers. The participants in the sample were chosen randomly and divided into age groups (5-8, 9-12, 13-16) and their degrees of disabilities whose cases were classified into (simple, moderate, severe). To achieve the objectives of the study, the researcher used Supports Intensity Scale™ (SIS) for intellectual and developmental disability to measure the diagnosis of support needs developed (Al-A'tawi, 2012). The results indicated that the support levels were within the pervasive support levels. Results indicated that there are statistically significant differences at the significance level ($\alpha \geq 0.05$) of the support levels according to the gender variable on the activities: daily life activities, community activities, vocational activities, health and safety activities, and the presence of statistically significant differences at ($\alpha \geq 0.05$) of support levels depending on the age group variable on activities: daily life activities, community, social, academic and professional activities. Additionally, the results of the study stated that there are statistically significant differences at ($\alpha \geq 0.05$) of support levels according to the degree of disability variable in all activities: daily life activities, community, social, academic, and vocational as well as health and safety activities and elf-protection activities).

Keywords: Intellectual and developmental disability, Supports Intensity Scale™ (SIS), age, disability degree.

مستويات الدعم لذوي الإعاقة الفكرية والنمائية في ضوء متغير الجنس والعمر ودرجة الإعاقة

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ملخّص

هدفت الدراسة الحالية إلى تعرُّف مستويات الدعم لذوي الإعاقة الفكرية والنمائية في ضوء متغيري العمر وردرة الإعاقة، وتكونت عينة الدراسة من (40) شخص من ذوي الإعاقة الفكرية والنمائية، بلغت أعمارهم ((5-16سنة، وللتحقين بمراكز التربية الخاصة، جرى اختيارهم بطريقة عشوائية، وتم تقسيم العينة إلى فئات عمرية (5-8، 9-12، (13-16وإلى إعاقة بسيطة، متوسطة، شديدة. ومن أجل تحقيق أهداف الدراسة استخدمت الباحثة مقياس مستويات الدعم للإعاقة الفكرية و النمائية SIS لقياس تشخيص حاجات الدعم، المطور من قبل العطوي،(2012) . أشارت النتائج إلى أن مستويات الدعم جاءت ضمن مستوى الدعم الشامل لجميع أفراد عينة الدراسة للدرجة الكلية وتبعًا إلى متغيرات الجنس والفئة العمرية ودرجة الإعاقة، كما أظهرت النتائج وجود فروق دالة إحصائيًا عند مستوى الدلالة ($\alpha \leq 0.05$) لمستويات الدعم تبعًا إلى متغير الجنس على (نشاطات الحياة اليومية، النشاطات المجتمعية، النشاطات المهنية، نشطات الصحة والسلامة). ووجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha \leq 0.05$) لمستويات الدعم تبعًا إلى متغير الفئة العمرية على (نشاطات الحياة اليومية، النشاطات المجتمعية، النشاطات الاجتماعية، النشاطات الأكاديمية، النشاطات المهنية). ووجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha \leq 0.05$) لمستويات الدعم تبعًا إلى متغير درجة الإعاقة على جميع النشاطات (نشاطات الحياة اليومية، النشاطات المجتمعية، النشاطات الاجتماعية، النشاطات الأكاديمية، النشاطات المهنية، نشطات الصحة والسلامة، نشاطات حماية الذات).

الكلمات الدالة :الإعاقة الفكرية والنمائية، مقياس مستويات الدعم، العمر، درجة الإعاقة..

Introduction

The process of diagnosing intellectual disability is complex since that it involves focusing on the medical, mental, social and educational characteristics and taking them into consideration in an intellectually disabled individual. Furthermore, measurement and diagnosis must take into account individual differences between the disabled individuals in terms of their sex, age, degree of disability, housing and many variables that can change the results of measurement and diagnosis.

Measurement and diagnosis in the field of mental disability also aims at planning educational programs and identifying the support needs of persons with mental disabilities which are associated with all the performance, psychological, mental and social as well as professional and academic aspects of individuals with disabilities and these aspects are of equal importance in their life to achieve matching between intellectually disabled individual and environmental capabilities and demands (Al- Rossan, 2017).

The World Health Organization's international classification of performance, disability and health (2017), the American Association on Intellectual and Developmental Disabilities (2010), Definition of Intellectual Disability (2009), American Association on Intellectual and developmental Disabilities (aaidd) (2002), and Diagnostic Statistical manual of mental Disorders (DSM-5), (2015) adopted a classification system for requirements and needs in this category of individuals. When the diagnosis meets to the needs, there is congruence between personal competence and the current environmental requirement.

So the need in the disability field required the ability to clearly identify and arrange support needs that effectively address the mismatch between competency and environmental demands in terms of type, level and frequency of support (Shogre, Seo, Wehmeyer, Hughes, Thompson Little, &Palmer, 2015).

Developmental disabilities require a variety of needs for conformity including: independent living skills education, community support, counseling, family planning, health care services, transitional services as well as vocational planning and vocational training (Australian Association of Special Education, (AASE), 2013).

Therefore, each child needs special support systems in their life, and the American Association for Mental and Developmental Disabilities "AAIDD" identified this system as a criterion of diagnosis of persons with mental disabilities (mental ability, adaptive behavior, support systems), and these systems include four levels: [(Limited Support), (Intermittent Support), (Extensive Support) and (Pervasive Support)] and Support is provided based on the degree of disability, age and gender. (Al-Rihani, Al-Zraikat, & Tanous,, 2018; Thompson, Hughes, Schalock, Silverman, Tassé et al., 2002; Browder, Spooner & Mreier, 2011).

Consequently, special education and mental disability specialists' attention focus increasingly on assessing support needs which is defined as "a psychological structure that refers to the pattern and intensity of a person's support to bring about conformity in personal competence and to activities related with typical human performance and environmental demands" (Thompson, Wehmeyer, Little, Patton, Polloway et al., 2008).

Accordingly, the concept of “support” has emerged in recent years, and because of the contemporary focus on the quality of life of people with mental disabilities, attention has shifted from the levels of vulnerability to the levels of support needed by the individual to maximize autonomy, productivity and effective participation in society, thus; this framework entails the demonstration of support, its history, levels, methods of measurement, as well as the role the American Association for Mental & Developmental Disabilities "AAIDD" in highlighting support (Al-Rihan, Zraikat, & Tanous, 2018).

The American Association for Mental & Developmental Disabilities "AAIDD" is the first among other associations and societies in emphasizing the importance of support for individuals with mental disabilities, and it refers that support is most important in adults' lives – whether ordinary or extraordinary – as it preserves psychosocial construction and social stability, and helps individuals with a mental disability to maximize their independence (Wehmeyer, 2009).

In 2004, Supports Intensity Scale "SIS" was one of the first efforts to standardize and develop the support levels measure for mental and developmental disabilities development by Thompson, Bryant, Campbell, Craig, et al., (2004) that is considered one of adaptive behaviors measures and their extensions. It is designed to gather information on the support

levels needed by individuals with mental disabilities in all dimensions, including (daily life, community, lifelong learning, vocational, health and safety, social skills, self-defense skills) and the scale gives raw scores to determine the appropriate level of support needed by the individual and perhaps the importance of this measure lies in the ease and possibility of translating the results into an individual support plan.

Children with handicaps need to be looked at and supported as their normal peers and in the light of what has been advocated by international legislation and laws, through the so-called early intervention services and programs in order to improve their development in the private, community and academic life, and contribute to the development of their potential and abilities available to them so that they can depend on themselves and communicate with the individuals surrounding them in the community and this will facilitate their integration with their ordinary peers (Kawafha, Abdulaziz, (2005).

Support services in the special education dimension have become very important since they include learning and community experiences that define professional and life goals, self-determination and self-defense (Al-Zuodi, 2008).

Some studies in the field of support needs of people with intellectual and developmental disabilities have dealt with the importance of some variables in determining the levels of support.

Verdugo, Arias, Guillén (2017) try to investigated the impact of method effects in the SIS-C through a bifactor approach to the analysis of multitrait–multimethod matrices. sample comprised 814 children (35.1% girls) between 5 and 16 years old (M = 11.5; SD = 3.44), The results suggest that neither intensity nor frequency scales produced method effects that significantly distorted the measurement of support needs. However, the daily support time method had substantial undesirable effects on five of the seven subscales of support needs. Considerations about support needs assessment and future modifications of the scale are discussed

Verdugo, Arias, Guillén, Seo, Shogren, Shaw, &Thompson (2016) Conduct a study consisted of (450) Spanish children with intellectual disabilities aged (5 –16 years). Supports Intensity Scale "SIS" was applied to them and the results showed that the Spanish version of the support scale can be effective in measuring and estimating the support needs of children aged 5-1. The results also showed that there are statistical differences between the arithmetic means according to the age variable. The results also showed that the Spanish version of the levels of support is valid for use with the age group (5 – 16), taking into account gender differences in the preparation of educational plans.

The study conducted by Guillén, Verdugo, & Arias, & Vicente (2015) which aimed to develop a scale to assess the support needs of children and adolescents with intellectual disabilities. The scale was developed based on the international proposal put forward by the American Association for Intellectual and Development Disabilities, the Spanish version of the (Support Levels Scale). The study sample consisted of 143 individuals (children and adolescents) with intellectual disabilities. The study showed that the psychometric properties of the developed support levels scale according to the modern theory of measurement, and a gradual scale, the results showed that the psychometric properties of the scale of validity and reliability were to some extent acceptable, and adjustments were made to the developed scale for the Spanish version of the support level levels scale.

In 2015, Shogren and other researchers (Shogren, Seo, Wehmeyer, Hughes, Thompson, Little. & Palmer, 2015) carried out a study that aimed to identify the effect of differences in determining support levels for a sample of individuals with intellectual and developmental disabilities aged (5-16) who suffered from autism. The study was divided into age groups (5-6, 7-8, 9-10, 11-12, 13-14, 15-16). The study used Extensive Support Levels (Children Version) which emphasized stable scale according to age variable. The results showed that younger children, in general, have more extensive support needs and the students with mental disabilities requires low support levels. Additionally, the results showed that the age group (15 – 16) had differences in terms of the strength of correlations among support areas higher than other age groups.

The study conducted by Wehmeyer (2009) aimed to identify the effectiveness of the support levels scale in predicting the exceptional needs of people with intellectual and developmental disabilities. The sample consisted of (274) adults and support levels scale was applied to them as a tool to measure the support needs of adult individuals with intellectual and intellectual disabilities. The results showed that support levels contributed significantly to the impact of need to greater support levels.

Comments on the previous studies

By reviewing of the previous literature addressed above, it was found that that some studies and a few of them aimed to verify support levels in the light of some variables which were in general foreign studies such as the study carried out by (Verdugo et al., 2016), (Guillén et al., 2015), (Shogren et al., 2015) and (Wehmeyer, 2009), (Verdugo et al., 2017) It is noticed that few number of studies were conducted which dealt with support levels and relevant scales to modern diagnosis. According to the researcher's knowledge none of the Arab studies addressed or dealt with support levels scale, therefore the current study is the first which used the literature and measurement tools and diagnosis of support levels needs for intellectually and developmentally disabled individuals.

Problem Statement:

Individuals with mental disabilities are important category of society which can contribute and participate in the process of economic and social construction of the state, if properly integrated and dealt with positively. Perhaps one of the most important requirements of this integration of persons with disabilities and ذtransforming them into an effective force is to provide them with support needs within specific levels, and based on the degree of disability, age and gender, which focuses on capacity and development, and to provide the person with disabilities with the necessary skills to integrate into society. Therefore, the process of measuring and diagnosing persons with intellectual and developmental disability has become modern trends in determining their support needs, so that they become effective and able to integrate, so that they can shape themselves and thus reach take their decisions and specify their needs, it crucial to have support levels with four levels which are as follows: Limited Support, Intermittent Support, Extensive Support and Pervasive Support.

Questions of the Study

The problem of the study is clearly specified in its major question which states as follows: "What are the support levels for individuals with intellectual and developmental levels in terms of their gender, age and disability degree?"

The following sub-questions are derived from the abovementioned major question:

Q. 1: What is the level of support level of the individuals with intellectual and developmental disabilities?

Q. 2: Do support levels provided for intellectually and developmentally disabled individuals differ according to gender variable?

Q. 3: Do support levels provided for intellectually and developmentally disabled individuals differ according to age variable?

Q. 4: Do support levels provided for intellectually and developmentally disabled individuals differ according to disability degree?

Significance of the Study

The importance of the study in providing the Saudi environment with measurement and diagnosis in light of the Support levels needed by a handicapped individual, which determines the individual educational program in which he must enrolled.

In addition this study is a new scientific addition to the diagnostic measures and identifies support needs for people with intellectual disabilities, and its importance lies in daily life and health skills and independence for individuals with intellectual disabilities. It is also important in identifying the items of individual educational plans in the education of intellectual and developmental disabilities.

The results of the study may also inform the workers' insight with mental disabilities, including specialists and professionals, taking into consideration gender, age and severity of disability variables in writing educational plans by identifying the different support needs. The study attempted to provide a measure to determine support levels for individuals with intellectually and

developmentally disabled individuals. The results of the study may also benefit the disabled themselves by alleviating their suffering in terms access to services they need most as well as those who are mentally handicapped with the necessary programs through individual educational plans and support programs for persons with disabilities.

Method & Procedures

Methodology

Descriptive method was used to achieve the objective of the study represented in recognizing support levels provide for the intellectually and developmentally disabled individuals in accordance with gender, age and disability degree variables, and we used this method because it is the approach that studies the phenomenon in its reality and analyzes it scientifically.

Population of the Study

The study population consisted of all individuals with intellectual and developmental disabilities who suffer from simple, moderate and severe cases and who are enrolled in special education programs in the education administration in Tabuk region, aged (5-16) and their number is (330), in the scholastic year 2017/2018.

Sample of the Study

The sample of the study consisted of (40) individuals with intellectual and developmental disabilities aged (5-16 years) who were categorized into age groups and distributed according to the degrees of disabilities whose cases were classified into (simple, moderate, severe) as shown in the following table:

Table (1): The distribution of the study sample individuals in special education centers in Tabuk region according to its variables

Variable		Number	Percentage
Gender	Male	21	47.7
	Female	19	43.2
	Total	40	100
Age	5 – 8	10	20.5
	9 – 12	18	40.9
	13 – 16	12	27.3
	Total	40	100
Disability Degree	Simple	12	27.3
	Moderate	16	36.4
	Severe	12	27.3
	Total	40	100

The Tool of the Study

In order to measure the support level for the needs of individual with intellectual and developmental disabilities, support levels scale of behavioral activities developed by (Al-A'twi, 2012) was used which met the Jordanian context is developed by the American Association on Mental Retardation which aims to assess the necessary support levels for intellectually and developmentally disabled individuals through three indicators (frequency, duration and type);

In the current study the frequency of support was adopted to measure the level of the study sample individuals. The scale consists of (105) daily activities and distributed over seven main dimensions. The scale showed high validity and reliability indications. The arbitrators' agreement reached at (80%). The Validity of the criterion showed an acceptable percentage of the correlation that reached (0.54). The coefficient reliability coefficient was (0.97) and the Cronbach's alpha was (0.99). The following table demonstrates the distribution of items and degrees for each dimension.

Table (2): The distribution of items and degrees for each dimension

Dimension	No. of items	Lowest degree on the dimension	Highest degree on the dimension
Daily life skills	15	0	45
Community skills	15	0	45
Social skills	15	0	45
Academic skills	15	0	45
Vocational skills	15	0	45
Health & safety skills	15	0	45
Self-protection skills	15	0	45
Grand Total	105	0	405

The examiner has to assess the examinee's performance against each of the activities mentioned in the scale by circling the right number (0 – 3) for each frequency indicator and explains the degrees from zero to three as follows:

(0) Degree means the intellectually disabled person doesn't need support.

(1) Degree means the intellectually disabled person needs support.

(2) Degree means the intellectually disabled person needs support.

(3) Degree means the intellectually disabled person needs support.

The following table shows the correction of support levels scale (Thompson, et al., 2004)

Table (3): Correction of support levels scale

Category	Degree
Intermittent Support	84 or less
Limited Support	85 – 99
Extensive Support	100 – 115
Pervasive Support	116 or more

Variable of the Study

- Independent variables: (gender, age, disability degree)
- Dependent variables: Support levels

Results and discussion

First: The answer of the first sub-question which states the following: What is the level of support level of the individuals with intellectual and developmental disabilities?

To answer this question the arithmetic means and standard deviations of support levels provided to the individuals of the study sample

Table (4): arithmetic means and standard deviations of support levels provided to the individuals of the study sample

Activities	Arithmetic Mean	Standard Deviation	Rank	Support Level
Daily life skills	146.54	4.31	1	Pervasive Support
Academic skills	131.97	3.71	2	Pervasive Support
Health & safety skills	129.84	4.11	3	Pervasive Support
Self-protection skills	129.2	2.57	4	Pervasive Support
Community skills	126.54	4.37	5	Pervasive Support
Social skills	125.61	3.71	6	Pervasive Support
Vocational skills	123.88	3.70	7	Pervasive Support
Grand total	127.95	3.07	-	Pervasive Support

The results in table (4) above indicate that the support levels were within the pervasive support levels, It is noticed that the support level for total degree reached at (127.95) within the pervasive support levels, It is noticed that the high mean of support level for daily life skills reached at (146.54) within the pervasive support levels whereas second support levels mean for Academic skills reached at (131.97) which is within the pervasive support levels. It is noted that latest support levels for Vocational Skills at (123.88) within the pervasive support levels. The result agree with and (Wehmeyer , 2009) that support levels contributed significantly to the impact of need to greater support levels.

second: The answer of the second sub-question which states the following "Do support levels provided for intellectually and developmentally disabled individuals differ according to gender variable?"

To answer this question the arithmetic means and standard deviations of support levels provided to the individuals of the study sample according to gender variable as shown in table number (5) below:

Table (5): Support levels provided for the study sample individuals according to gender variable in terms of their arithmetic means

Activities	Gender	Arithmetic Mean	Standard Deviation	Support Level
Daily life skills	Male	126.52	3.60	Pervasive Support
	Female	130.57	5.025	Pervasive Support
Community skills	Male	133.04	3.45	Pervasive Support
	Female	120.05	5.30	Pervasive Support
Social skills	Male	132.38	3.680	Pervasive Support
	Female	118.84	3.74	Pervasive Support
Academic skills	Male	132.10	3.68	Pervasive Support
	Female	131.84	3.74	Pervasive Support
Vocational skills	Male	133.71	2.10	Pervasive Support
	Female	114.05	5.30	Pervasive Support
Health & safety skills	Male	126.09	5.99	Pervasive Support
	Female	133.6	2.24	Pervasive Support
Self-protection skills	Male	126.20	2.70	Pervasive Support
	Female	132.2	2.45	Pervasive Support
Grand total	Male	130.04	2.65	Pervasive Support
	Female	125.87	3.50	Pervasive Support

The results in table (5) above indicate that the support levels for both males and females were within the pervasive support levels, with apparent differences between the means of males and females. It is noticed that the high mean of support level for males at (130.04) within the pervasive support levels whereas support levels mean for females reached at (125.87) which is within the pervasive support levels. It is noted that there are also differences in the support levels according to activities and the results indicated that the means of support levels have increased for females on daily life activities at (130.57) and males (126.52), but they are both within the pervasive support levels.

Concerning community activities, the mean of support levels for males has increased to (133.04) and for females (120.05) within the pervasive support levels. In social activities, the means of support levels for males have increased and reached at (132.38) and for females (118.84) within pervasive support levels. As for academic activities, the means of support levels for males and females have converged and reached at (133.71) and for females (114.05) within the pervasive support levels.

As for vocational activities, the means of support levels for males has increased to (133.71) and for females (114.05) within the pervasive support levels. As for health and safety activities, the mean of support levels for females has increased to (133.6) and for males (126.09) within the pervasive support levels. As for self-protection activities, the means of support levels for

females have increased to (132.2) and for males (126.20) within the pervasive support levels. It is observed that there are variations in the means of support levels although they are within the pervasive support levels. The difference may be in the time, frequency and type of support provided to the study sample individuals intellectual and developmental disabilities.

The difference may be justified by the interests and nature of both males and females. For example, in vocational activities, males may need this support more than females. In health and safety activities, females may need more frequency and quality of support than males because they need to use more tools at home than males. However, at the same time both males and females need pervasive support levels on all activities necessary to integrate in their communities.

thirdly: The answer of the third sub-question which states the following "Do support levels provided for intellectually and developmentally disabled individuals differ according to age variable?"

To answer this question the arithmetic means and standard deviations of support levels provided to the individuals of the study sample according to age group variable as shown in table number (6) below:

Table CV (6): Support levels provided for the study sample individuals according to age category variable in terms of their arithmetic means

Age group	5 – 8			9 – 12			13 – 16		
Activities	Arithmetic Mean	Standard Deviation	Support level	Arithmetic Mean	Standard Deviation	Support level	Arithmetic Mean	Standard Deviation	Support level
Daily life skills	120.3	2.07	Pervasive Support	126.4	4.89	Pervasive Support	128.14	1.77	Pervasive Support
Community skills	113.0	2.70	Extensive Support	133.33	2.95	Pervasive Support	134.1	1.214	Pervasive Support
Social skills	114.8	3.08	Extensive Support	131.22	4.465	Pervasive Support	134.2	.951	Pervasive Support
Academic skills	115.00	3.10	Extensive Support	131.2	4.46	Pervasive Support	134.2	.951	Pervasive Support
Vocational skills	112.80	2.90	Extensive Support	131.2	4.46	Pervasive Support	134.2	.95	Pervasive Support
Health & safety skills	113.80	3.96	Extensive Support	124.44	2.78	Pervasive Support	124.14	2.94	Pervasive Support
Self-protection skills	113.80	2.60	Extensive Support	117.00	3.35	Pervasive Support	134.28	.951	Pervasive Support
Grand Total	115.65	2.70	Pervasive Support	126.95	3.50	Pervasive Support	131.89	1.67	Pervasive Support

The results in table (6) above indicate that the support levels for all age groups of individuals with intellectual and developmental disabilities came from the pervasive support levels, as the means of pervasive support levels for the age group (13 – 16) years have increased to (131.89) within the comprehensive pervasive support levels while the mean support levels for the age group (9 – 12) reached at (126.95), which is within the pervasive support levels, as for the mean age group (5 – 8) it reached at (115.65), but it was noted that the differences in means between age groups and they were the highest for the age group (13-16) but all within the pervasive support level.

It was noted that the means pervasive support levels for the age group (13 – 16) years on the daily life activities that reached at (128.14) within the pervasive support levels, while the mean support levels for the age group (9 – 12) reached at (126.40), which is within the levels of comprehensive support. The average age group (5 – 8) (120.3) is within the pervasive support levels. However, means varied between age groups and were the highest for the age group (13 –16).

As for the community activities, the means support levels for the age group (13 – 16) increased to (134.10), while for the

age group (9-12), it reached to (133.33), which are among the pervasive support levels and it reached (113.0) for the age group (5 – 8) which had the lowest mean of support levels in community activities and within the intensive support level.

Concerning the social activities, the means of support levels for the age group (13 – 16) increased to (134.20), while for the age group (9-12) it reached (131.22) while for the age group (5 – 8) it reached to (114.80) which had the lowest mean of support levels in social activities and within the intensive support level.

As for academic activities, the mean of support levels for the age group (13 – 16) increased to (134.20), while for the age group (9 –12) it reached (131.20) which were within pervasive support levels while for the age group (5 – 8) it reached to (115.00) which had the lowest mean of support levels in the academic activities and within the intensive support level.

As for vocational activities, the mean of support levels for the age group (13 – 16) increased to (134.20), while for the age group (9 –12) it reached (131.20) which were within pervasive support levels while for the age group (5 – 8) it reached to (112.80) which had the lowest mean of support levels in the vocational activities and within the intensive support level.

As for health and safety activities, the mean of support levels for the age group (13 – 16) increased to (124.14), while for the age group (9 –12) it reached (124.14) which were within pervasive support levels while for the age group (5 – 8) it reached to (113.80) which had the lowest mean of support levels in the health and safety activities and within the intensive support level.

As for self-protection activities, the mean of support levels for the age group (13 – 16) increased to (134.28), while for the age group (9 –12) it reached (117.00) which were within pervasive support levels while for the age group (5 – 8) it reached to (113.80) which had the lowest mean of support levels in the self-protection activities and within the intensive support level.

fourth: The answer of the fourth sub-question which states the following "Do support levels provided for intellectually and developmentally disabled individuals differ according to disability degree?"

To answer this question the arithmetic means and standard deviations of support levels provided to the individuals of the study sample according to their disability degree as shown in table number (7) below:

Table (7): Support levels provided for the study sample individuals according to disability degree variable in terms of their arithmetic means

Disability Degree	**Simple**			**Moderate**			**Severe**		
Activities	**Arithmetic Mean**	**Standard Deviation**	**Support level**	**Arithmetic Mean**	**Standard Deviation**	**Support level**	**Arithmetic Mean**	**Standard Deviation**	**Support level**
Daily life skills	115.3	1.63	Extensive Support	125.22	4.91	Pervasive Support	127.66	2.25	Pervasive Support
Community skills	132.16	5.52	Pervasive Support	133.22	2.99	Pervasive Support	90.66	1.21	Limited Support
Social skills	133.50	2.34	Pervasive Support	130.5	4.77	Pervasive Support	113.00	1.26	Extensive Support
Academic skills	133.50	2.34	Pervasive Support	130.51	4.77	Pervasive Support	89.00	1.26	Limited Support
Vocational skills	134.50	.83	Pervasive Support	133.22	2.99	Pervasive Support	96.66	1.21	Limited Support
Health & safety skills	133.16	2.78	Pervasive Support	125.00	2.73	Pervasive Support	98.66	5.12	Limited Support
Self-protection skills	133.50	2.34	Pervasive Support	116.33	3.1	Pervasive Support	134.00	1.26	Pervasive Support
Grand Total	130.80	2.90	Pervasive Support	127.12	3.33	Pervasive Support	107.091	3.17	Extensive Support
Total mean	121.67		3.40			Pervasive Support			

The results in table (7) above indicate that the support levels for all degrees of disability of individuals with intellectual and developmental disability were among the pervasive support levels. The total mean of pervasive support levels reached to (121.67), noting the highest mean pervasive support levels is scored by simple disability degree at (130.80) within pervasive support levels, while the mean of support levels of the moderate disability degree reached at (127.12) which is within the pervasive support levels, and the mean of score of severe disability degree reached to (107.091), but within the level of extensive support. However, means vary among the disability degrees and the highest mean was scored by simple disability degree.

As for the daily life activities, the results of the current study showed the increase mean of pervasive support level scored by severe disability degree at (127.66) within the pervasive support level, while the mean support levels for the moderate disability degree reached to (125.22), which is within the pervasive support level, whereas the mean simple disability degree scored (115.30) but it within the extensive support level. Regarding community activities, it was noticed that the mean of the pervasive support level for moderate disability degree has decreased and arrived at (133.22) within the pervasive support level, while the mean of support levels for the degree of simple disability degree scored (132.16) which is within the pervasive support level, and the mean of severe disability degree scored (90.66), but within limited support level.

As for the social activities, the mean of the pervasive support level for simple disability degree achieved the highest score at (133.50) within the pervasive support level, while the mean of support level for the moderate disability degree scored (130.50) which is within the pervasive support level whereas, the mean of severe support degree reached to (113.00) but within the extensive support level.

As for the academic activities, the mean of the pervasive support levels for simple disability degree achieved the highest score at (133.50) within the pervasive support level, while the mean of support levels for the moderate disability degree scored (130.50) which is within the pervasive support level whereas, the mean of severe support degree reached to (89.00) but within the limited support level.

As for the vocational activities, the mean of the pervasive support levels for simple disability degree achieved the highest score at (134.50) within the pervasive support level, while the mean of support levels for the moderate disability degree scored (130.22) which is within the pervasive support level whereas, the mean of severe support degree reached to (89.00) but within the limited support level.

As for the health and safety activities, the mean of the pervasive support levels for simple disability degree achieved the highest score at (133.16) within the pervasive support level, while the mean of support levels for the moderate disability degree scored (125.00) which is within the pervasive support level whereas, the mean of severe support degree reached to (98.66) but within the limited support level.

As for the self-protection activities, the mean of the pervasive support levels for simple disability degree achieved the highest score at (133.50) within the pervasive support level, while the mean of support levels for the severe disability degree scored (134.00) which is within the pervasive support level whereas, the mean of moderate support degree reached to (127.12) but within the pervasive support level.

Multivariate analysis of variance (MANOVA) was conducted as shown in the following table.

Table (8): Multivariate analysis of variance (MANOVA) of difference among study sample individuals scores based on support levels and according to gender, age group and disability degree

Source of Variance	Skills	Sum of squares (SS)	df	Mean squares (MS)	Calculated F	Statistical significance level
Gender Wilks' lambda value = 0.033	Daily life skills	149.074	1	149.074	13.055	.001
	Community skills	416.429	1	416.429	28.742	.000
	Social skills	2.481	1	2.481	.231	.635
	Academic skills	2.481	1	2.481	.231	.635
	Vocational skills	472.761	1	472.761	49.028	.000
	Health & safety skills	206.686	1	206.686	18.552	.000
	Self-protection skills	59.055	1	59.055	.103	.751
Age Category	Daily life skills	38.976	2	19.488	1.707	.201
	Community skills	36.745	2	18.373	1.268	.002
	Social skills	21.382	2	10.691	1.996	.03
	Academic skills	21.382	2	10.691	2.945	.03
	Vocational skills	18.782	2	9.391	1.974	.00
	Health & safety skills	2.906	2	1.453	.130	.878
	Self-protection skills	69.512	2	34.756	.061	.941
Disability Degree	Daily life skills	19.455	2	9.728	2.852	.04
	Community skills	21.398	2	10.699	2.738	.04
	Social skills	20.585	2	10.293	1.959	.03
	Academic skills	20.585	2	10.293	1554	.03
	Vocational skills	14.824	2	7.412	1.769	.04
	Health & safety skills	48.845	2	24.423	2.192	.01
	Self-protection skills	82.972	2	41.486	2.072	.00
Error	Daily life skills	296.892	26	11.419		
	Community skills	376.708	26	14.489		
	Social skills	279.025	26	10.732		
	Academic skills	279.025	26	10.732		
	Vocational skills	250.708	26	9.643		
	Health & safety skills	289.667	26	11.141		
	Self-protection skills	14903.025	26	573.193		
Total	Daily life skills	871.744	38			
	Community skills	1381.897	38			
	Social skills	474.308	38			
	Academic skills	474.308	38			
	Vocational skills	1340.974	38			
	Health & safety skills	1345.692	38			
	Self-protection skills	17028.974	38			

*Statistically significant at the statistical significance level ($\alpha \leq 0.05$)

As shown in Table (8) above there are statistically significant differences at the significance level ($\alpha \geq 0.05$) of support levels according to gender variable on activities (daily life, community, occupational activities, health and safety activities) where the value of F arrived at (13.055, 28.742, 49.028 and 18.552) respectively for activities which are statistically

significant at the significance level (α≤0.05)

Furthermore, the results of the current study also showed that there are statistically significant differences at the significance level (α≥0.05) of support levels according to age variable on activities (daily life, community, social, academic and occupational activities) where the value of F arrived at (1.707, 1.268, 1.996, 2.945 and 1.974) respectively for activities which are statistically significant at the significance level (α≤0.05)

Additionally, the results of the current study also indicated that there are statistically significant differences at the significance level (α≥0.05) of support levels according to disability degree on all activities (daily life activities, community, social, academic, and vocational as well as health and safety activities, self-protection activities) where the value of F arrived at (.852, 2.738, 1.959, 1554, 1.769, 2.192 and 2.072) respectively for activities which are statistically significant at the significance level (α≤0.05)

The results of this study agreed with the results of the relevant studies conducted by (Verdugo et al., 2016) revealed it should be taking into account gender differences in the preparation of educational plans. (Shogren et al., 2015) indicated younger children, in general, have more extensive support needs and the students with mental disabilities requires low support levels. Additionally, the results showed that the age group (15 – 16) had differences in terms of the strength of correlations among support areas higher than other age groups.

Recommendations

Based on the survey results conducted by the research proposed the following recommendations

1. It is necessary to take into consideration age variable when diagnosing support levels which define the items of the individual educational plans.
2. It is necessary to take into consideration gender variable when diagnosing support levels which define the items of the individual educational plans
3. It is necessary to take into consideration disability degree variable when diagnosing support levels which define the items of the individual educational plans
4. The use of support level scale in the educational field in the Arab world in the disability fields because of its characteristics in specifying the suitable support level for each individual with intellectual and developmental disabilities.
5. The importance of carrying more studies in the Arab world which address support level with other variable.

References

Al-Rossan, F. (2017). *Introduction in Mental Retardation*. (2nd ed.). Dar Al-Fiker for Printing, Publishing & Distribution.

Al-Zuodi, M. (2008). *Selected Reading in Special Education*. (1st ed.). Dar Al-Shrouk for Publication & Distribution.

Diagnostic and Statistical manual of mental Disorders (DSM-5). (2015). Definition of Intellectual Disability.

Al-A'twi, R. (2012). The effectiveness of building a scale to diagnoses support level of intellectual disability cases in a Jordanian sample, *unpublished doctoral thesis, Jordan University*.

Al-Rihani, S., Al-Zraikat, I., & Tanous, A. (2018). *Guidance of special needs individuals & their families*. (4th ed.). Dar Al-Fiker for Printing, Publishing & Distribution.

American Association on Intellectual and Developmental Disabilities (AAIDD). (2010). Definition of Intellectual Disability, Washington.

American Association on Mental Deficiency. (2009). Classification in Mental Retardation, American Association on Mental Deficiency 1719 Kalorama Road, NW Washington, DC.

American Association on Intellectual and developmental Disabilities (AAIDD). (2002). Definition of Intellectual Disability. https://aaidd.org/.

Australian Association of Special Education (AASE). (2013). Position papers.

Guillén, V., Verdugo, M., & Arias, B. & Vicente, E. (2015). Development of a support needs assessment scale for children and adolescents with intellectual disabilities. *Anales de psicología*, 31(1), 137- 144.

Kawafha, T., & Abdulaziz, O. (2005). *Introduction in Special Education*. Amman: Dar Al-Maisara.

Shogren., Seo, H., Wehmeyer, M., Hughes, C., Thompson, J., Little, T., & Palmer, S. (2015). Support needs of children with intellectual and developmental disabilities: Age-related implications for assessment. *Psychology in the Schools*, 52, 874-891.

Thompson, J., Hughes, C., Schalock, R., Silverman, W., Tassé, M., Bryant, B., & Campbell E. (2002). Integrating supports in assessment and planning. *Mental Retardation*, 40(5), 390-405.

Thompson J., Wehmeyer, M., Little, T., Patton, J., Polloway, E., Realon, A., & Tassé, M. (2008). *Supports Intensity Scale for Children. Field Test*. Washington, DC: American Association on Intellectual and Developmental Disabilities.

Thompson, J. R., Bryant, B., Campbell, E. M., Craig, E. M., Hughes, C., Rotholz, D. A., & Wehmeyer, M. L. (2004). *Supports Intensity Scale user's manual*. Washington, DC: American Association on Mental Retardation.

Verdugo, N., Arias, V., & Guillén, M. (2017). Are Type, Frequency, and Daily Time Equally Valid Estimators of Support Needs in Children With Intellectual Disability? A Multitrait–Multimethod Analysis of the Supports Intensity Scale for Children (SIS-C). *Saga journal*.

Verdugo, A., Arias, B., Guillén, M., Seo, M., Shogren, A., Shaw, A., & Thompson, R. (2016) Examining age-related differences in support needs on the Supports Intensity Scale-Children's Version Spanish translation. *International Journal of Clinical and Health Psychology*, 16, 306-314.

Wehmeyer, M. (2009). Efficacy of the Supports Intensity Scale (SIS) to predict extraordinary support needs. *Am J Intellect Development Disabilities*, 114(1), 3-14.