



Training Needs for Teachers of Children with Autism in Jordan, From Their Perspectives (A Descriptive Study)

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Abstract

The present study aimed to identify the training needs of teachers of children with autism spectrum disorder (ASD) and the identification of their relationship to some variables. The study sample consisted of (42) teachers, of both sexes, of children with autism spectrum disorder chosen deliberately from (5) private centers and institutions that provide educational services for those children in Amman, Jordan. The researcher used an instrument of (48) items distributed over two sub-domains: Theoretical training needs and practical skills training needs, after obtaining good validity and reliability of the scale. The results of the study indicated that the training needs importance to the respondents was of moderate level in each of the domains: Theoretical and practical skills needs. There were no statistically significant differences in teachers' assessment of their needs that could be attributed to the variables of gender and teaching experience of the teacher. The study recommends a continuous assessment of the needs of teachers of children with autism spectrum disorder, and focuses on the preparation of specialized training programs for teachers to satisfy these needs.

Keywords: Training needs; Autism; Teachers.



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1. Introduction

Teachers are considered the most important constituent of the educational process. They perform their tasks as organizers of this process. Its designers and planners are who follow-up the rapid technological development under which the teachers and students as well as the whole educational environment develop and cooperate. In fact, no one can deny that the outcomes of this educational process is highly affected by teachers' competencies and needs during service, they need to be empowered with general and special competencies to perform their tasks and achieve professional development to cope with latest scientific and technological progress of the twenty-first century.

Therefore, the need for teachers' in-service training has become a prerequisite. It is imperative to provide teachers with this training because of the increase of the number of children with ASD and their specific needs for special care and education as well as the need to modify their conduct towards an appropriate behavior and manner in order to teach them how to acquire the skills required for independent living (Al-Sayyed, 2006). These children need well-qualified cadres and teachers who have the essential competencies to meet their learning progress and face the challenges for children with special needs, including children with Autism spectrum.

It is essential to be acquainted with the theoretical needs and the practical skills needs of special education teachers and work to satisfy them to boost their motivation for teaching, devotion and loyalty to the profession of teaching. This is critical to guarantee the success of the teaching/learning process for students with ASD. Sawalha and Al-Omary (2013), argued that human beings do not learn, think, or even do any action or behavior unless they are driven by a certain need to do so and will do their best to find out how to satisfy their needs.

According to the researcher Klapan (2001), there is almost a general consensus on the importance of identifying and satisfying the training needs of the special education teachers, as these needs are the basic element of any activity, task or any educational system for teachers as part of the community. Accordingly, it is necessary to recognize the importance of the training needs and measure the level of teachers' satisfaction with their performance and achieving their aims on the ground. The level of this satisfaction will be tackled from their perspective (Grenchik *et al.*, 1999).

Teachers of students with ASD, just like other special education teachers, have limited competencies and skills to identify and develop the abilities of these students. So, they need to develop and upgrade their teaching skills to be able to teach the category of students they are dealing with Al-Khatib *et al.* (2014). Available data indicate that the less qualified and experienced teachers tend to quit their work more compared with other qualified counterparts (Al Khatib and Al Hadidi, 2010).

Hence, the training of special education teachers makes significant distinctions among them in relation to: their competencies in the process of teaching, their ability to improve the level of students and maintain their loyalty to their profession besides their persistence in the profession of teaching students with special needs.

The training needs of teachers of children with ASD can be identified through the standards of professional practice, the Council for Exceptional Children, CEC, the benchmarks that are approved by the Council for Children with Council for Exceptional Children (2009), which identified a set of knowledge and skills needed by teachers who teach these children.

Al Zare'a (2010), indicated that these standards incorporate: identifying the ASD, its prevalence rate, the history of interest in this disorder, its categorization, possible causes behind it, associated disabilities, its various characteristics and symptoms, the natural development sequence of affected children, the criteria for diagnosing the disorder, instruments and methods used in this diagnosis. Moreover, other criteria refer to making people aware of required programs and therapeutic interventions, designing individual educational programs, developing educational and behavioral goals, help teachers acquire special teaching methods and techniques and providing students with appropriate learning environment. This is in addition to setting up teaching aids, meeting the requirements to include children with ASD into ordinary schools, empowering teachers to apply behavior modification methods, assessment and documentation of children's progress, vocational rehabilitation for students with ASD, knowledge of working with families and other specialists and being familiar with laws related to this group of students.

Determining the training needs of teachers of students with ASD with autism is the starting point of the success of training programs, since these needs reflect the difference between the trainees' academic and professional level before joining the teaching career and their expected standards after that. This difference is related to teachers' performance, skills, experiences, behavior, attitudes, and knowledge that all make them able to perform their tasks efficiently (Bakhsh, 2009).

There are diverse definitions of autism. Among these definitions was childhood autism which was introduced by Canner in 1943 describing some behavioral traits; delay in speech and language acquisition, inability to communicate, facing difficulty in social interaction, failing to establish friendship ties with others, being engaged with typical and tedious behaviors, being repetitive and incapable of imagining or analyzing (Al-Shami, 2004). Rutter in 1978 presented four main characteristics in defining people with ASD: facing difficulty in social interaction, delay in language growth or unnatural usage of language, being repetitive and showing ritual and obsessive behavior (Al-Shami, 2004). These behaviors begin before the child becomes 30 months old (Suleiman, 2001). World Health Organization (1992), defined autism as a developmental disorder that is noticed before the child becomes three years old in the form of a deficiency in language utilization, social interaction, communication and playing. The description of the National Society for Children with ASD is the mostly acknowledged definition by professionals, since it states that autism is a set of basic pathological disorders that are noticeable during the first 30 months of the child's age, including disturbance in:

1. Velocity or succession of development.
2. Sensory response to stimuli
3. Constancy, belonging or loyalty to people and events
4. Speech, language and knowledge (Yahya, 2000)

1.1. Problem of the Study

The problem of the study is to explore the training needs of teachers for children with ASD pertaining to the theoretical and practical skills. It relies on the observations on ASD children's behavior outcome, the low level of benefit from educational services provided by educational institutions, and the inability of these teachers to face the challenges related to this disability. This implies that the academic and educational needs as well as the training skills of teachers of this group of children are not met or satisfied.

With respect to the above, the present study raises the following research questions:

1. How much important are the training needs of teachers for children with ASD during service, from their perspective?
2. Are there any statistically significant differences (at $\alpha = 0.05$) in the training needs of teachers for children with ASD during service, that could be attributed to the variables of: gender and years of experience?

1.2. Previous Studies

Hamdan (2018), conducted a study in Amman, Jordan to identify the training needs of teachers of children with ASD and determine its relationship with some variables (teaching experience of teachers and their educational qualification). The results of the study indicated that teachers' estimates of training needs were at a medium level and there were no statistically significant differences in teachers' estimation of theoretical and practical training needs that are attributed to the teaching experience of teachers and the educational qualification.

Almaamaria and AL-Taj (2017), made a study to detect the training needs of special education teachers at Al Buraimi Governorate in Oman and their relationship with some variables. The results of the study indicated that the degree of training needs of special education teachers relating to the utilization of modern technology and educational technology was superior followed by the need for planning the teaching process, then the needs concerning communication, and measurement and diagnosis, and finally the dimensions of behavior modification and theoretical knowledge in teaching. The findings revealed that there were no statistically significant differences in the degree of training needs of the sample members that could be attributed to the variables of: gender, educational qualification and years of experience.

Austin (2013), conducted a study to identify the training needs of teachers who provide support for students with ASD in Virginia. The main findings of the study indicated that there was a deficiency of supervision, training, and skills of teachers and directors of special education centers. Such deficiency made them learn the required skills and experience through trial and error. The results also indicated that the study sample members expressed their desire and willingness for individual training which is focused on behavior management and modification.

Hendricks (2011) study aimed at conducting a survey of special education teachers who deal with children with ASD, The study recommended that special education teachers should be qualified and empowered in accordance

with the nature of the disability and that they should have the skills required to promote development and change, as well as providing the basic data with contents designed to develop and upgrade their performance.

Sukar (2007), in Syria also conducted a study aimed at identifying the training needs of autistic children's teachers from their point of view. The results indicated that teachers' appreciation of the importance of possessing knowledge and skills in general was high, it also indicated that the sector variable to which the center belongs has a statistically significant effect, in favor of workers in private sector centers, while there was no effect of this variable on the evaluation of the study sample to the extent of their knowledge and skills. The results also showed that there was no effect of the variables of the educational qualification, and the number of years of experience, on estimating the study sample to the degree of importance and possession of knowledge and skills.

1.3. Study Terminology

Autism Spectrum Disorder (ASD): A chronic developmental disorder due to neurological causes and is associated with certain types of behavior that do not conform to social criteria, academic and professional performance. It is known for its inconvenient developmental levels (Al-Khatib *et al.*, 2014).

Teachers of students with ASD: Teachers who are appointed at Autism Centers to teach students registered at special education centers and hold the Master's, the bachelor degrees or Diploma in education.

Training needs: These needs include theoretical training needs and practical skills training needs that are required to deal with students with ASD successfully and help their self-development.

Students with ASD: Students who are enrolled in special education centers and institutions and have been diagnosed as having this disorder either by official authority or by these centers

2. Methodology

2.1. Methodology and Applied Statistical Processing Approach

The descriptive methodology was applied in the study through parameter survey (opinion poll) to explore the training needs for teachers of students with ASD in light of certain variables.

2.2. Population of the Study

The population is comprised of all teachers of children with ASD at 8 specialized special education centers and institutions which provide educational and training services for students with ASD in Amman, Jordan during the first semester of the scholastic year 2019/2020.

2.3. Sample of the Study

The sample consisted of (42) teachers who were purposely selected from (5) special education centers and institutions and they were cooperative with the researcher. The following table shows the distribution of the sample by variables.

Table-1. Characteristics of the sample by the variables of: gender and years of experience

Variables	Variable Group	Number	Percentage
Gender	Male	18	42.8%
	Female	24	57.2%
	Total	42	100%
Years of Experience	Less than 5 years	33	78.6%
	5 years or more	9	21.4%
	Total	42	100%

2.4. Instrument of the Study

Seeking to identify and measure the training needs of teachers of students with ASD, the researcher referred to some studies made by: Sukar (2007), Milhem (2013), Austin (2013) and Hamdan (2018). She also examined the professional practice criteria that are approved by the Council of Children with Special Needs, and studied some Arabic and foreign books on this issue. The scale of the study included (48) items divided into two domains:

1. Theoretical training needs which consist of (18) items: 1,3,4,14,18,19,21,24,30,31,32,33,34,37,38,40,41,42.
2. Practical skills training needs which consist of (30) items: 2,4,5, 6,7,8,9 ,10,11,12 ,13,15,16 ,17,20,22,23 , 25,26,27,28,29,35,36, 39,43,44,46,47,48.

The responses incorporates a rating scale of (3) levels according to Likert measure (very high level of agreement), (medium level of agreement) and (low level of agreement).

2.5. Validity of the Instrument

For the purpose of checking if the instrument was convenient to achieve the study objectives, the researcher submitted the instrument to (10) staff members at the university faculties to provide her with their views regarding: its inclusion of students' needs, consistency between items and domains, linguistic structure of the items and the possibility of adding or removing any item if they are found by arbitrators as inconvenient. After taking into account the arbitrators' judgment, the researcher applied 48 items in their final form and were approved by the arbitrators.

2.6. Internal Consistency Validity

The Pearson Correlation coefficient was extracted for each of the paragraphs with the field contained therein, to ensure the accuracy of the consistency of the paragraphs in measuring its field. Table (2) shows the values of correlation coefficients for the paragraphs of each field of the study tool, with the total score for the field contained in it.

Table-2. Correlation coefficients values to measure the extent of the internal consistency of the study tool's paragraphs, with the total score for the field in it (n = 42)

Training needs for practical skills				Theoretical training needs	
Factor correlation	Item number	Factor correlation	Item number	Factor correlation	Item number
**0.581	23	**0.634	2	*0.306	1
**0.573	25	**0.756	5	**0.551	3
**0.458	26	**0.609	6	**0.791	4
**0.528	27	**0.713	7	**0.670	14
**0.642	28	**0.573	8	**0.549	18
**0.560	29	**0.785	9	**0.629	19
**0.638	35	**0.591	10	**0.503	21
**0.500	36	**0.770	11	**0.399	24
**0.427	39	**0.750	12	**0.501	30
**0.599	43	**0.459	13	**0.566	31
**0.570	44	**0.597	15	**0.538	32
**0.403	45	**0.526	16	**0.638	33
**0.671	46	**0.482	17	**0.720	34
**0.596	47	*0.366	20	**0.495	37
**0.434	48	**0.530	22	**0.551	38
-----	-----	-----	-----	**0.575	40
-----	-----	-----	-----	*0.308	41
-----	-----	-----	-----	*0.388	42

* Correlation coefficient is statistically significant at the significance level ($0.05 \geq \alpha$)

** Correlation coefficient is statistically significant at the significance level ($0.01 \geq \alpha$)

2.7. Reliability of the Instrument

The researcher verified the reliability of the study by applying the method of the internal consistency in accordance with (Alpha- cronbach) on an exploratory sample involving 20 questionnaires included in the sample of the study. Table (3) shows the coefficient of internal consistency formula (Alpha- cronbach) and it is clear that the values of the reliability coefficients were high and satisfactory for the purpose of generalization of the study findings.

Table-3. Values of reliability coefficients for the two domains and the instrument by applying (Alpha- cronbach) formula

Domain number	Domains	Alpha-cronbach reliability coefficient %
Domain 1(18 items)	Theoretical training needs	0.853
Domain 2 (30 items)	Practical skills training needs	0.931
1-48	Reliability general average	0.949

2.8. Correction Criterion of the Study Instrument

To identify the degree of estimates, the researcher used the means of the sample members' answers to be an indicator of the estimates on the basis of the following criterion in classifying means; she divided the estimates into three levels (low (1), medium (2) and high (3):

- 1- Less than/ equal to (1.66), low agreement level.
- 2- More than/ equal to (1.67), and less than/equal to (2.33), medium agreement level.
- 3- More than /equal to (2.34), high agreement level.

2.9. Limitations of the Study

- 4- *Spatial limitations:* This study was conducted at the Centers of Autism in Amman, the Hashemite Kingdom of Jordan.
- 5- *Sequential limitations:* It was made at the first semester of the scholastic year 2019-2020.
- 6- *Human limitations:* Teachers at the Centers of Autism in Amman.
- 7- *Focal point (subject matter) limitations:* Knowledge of theoretical and practical training needs of teachers for children with ASD, who are working at the Special Education Institutions in Amman.

3. Results and Discussion

3.1. First: Results of the First Question

How much important are the training needs of teachers for children with ASD during service, from their perspective?

To answer this question, the researcher used the means, standard deviations of the responses of the sample members (comprising teachers of students with ASD) on the items related to the theoretical training needs and practical skills training needs incorporated in the study instrument as well as the needs in general. The results are demonstrated in tables (5), (6) and (4) respectively.

Table-4. The means and standard deviations of the responses of the teachers of ASD students from their perspective in order of significance

Domain	Mean	Standard deviation	Order	Significance degree
practical skill training needs	2.25	0.40	1	medium
theoretical training needs	2.19	0.38	2	medium
training needs(in general)	2.23	0.38		medium

Table (4) shows that teachers consider their training needs in general of medium significance with a mean of (2.23) and a standard deviation of (0.38). Their needs in the practical skills training domain ranked first with a mean of (2.25) and a standard deviation of (0.40), and the theoretical training domain came second with a mean of (2.19) and a standard deviation of (0.38), both of moderate significance.

Despite the fact that the overall degree of training needs was at a medium level, this doesn't imply that these needs are completely satisfied. It is imperative to develop intensive and inclusive programs to promote their knowledge and reach the competency level in dealing with these students. Nonetheless, in light of the results relating to this question, there are still some important needs which have to be satisfied for teachers of students with ASD. We can conclude that this result indicates that there is weakness or shortage in programs targeted at qualifying teachers either through pre-service or in-service training programs. The researcher also points out that training and professional programs provided for teachers of these children are rare, whether through pre-service or in-service programs in universities and faculties. Majority of available courses focus on general knowledge and skills in special education rather than specialized courses relating to ASD, and although students at these universities who graduate to become teachers in future acquire specialized information and skills, these skills are mostly limited and not inclusive. So, this affects their awareness level of such disorder and thus, the need for theoretical and practical training in this domain becomes crucial.

Table-5. Means, standard deviations and significance degree of items of theoretical training needs for teachers of students with ASD (from their perspectives) arranged from most significant to least

Item number	Item	Order	Mean	Standard deviation	Significance degree
19	Disorders and disabilities associated with ASD	1	2.33	0.65	Medium
42	Concepts and basic procedures related to behavior modification of students with ASD	2	2.31	0.60	Medium
37	Pressure on families of children with ASD	3	2.29	0.67	Medium
32	Definition of ASD	4	2.29	0.68	Medium
34	New instruments for assessment of students with ASD	5	2.26	0.67	Medium
18	Basic modules of programs for students with ASD	6	2.26	0.73	Medium
24	Pharmaceuticals used to rear students with ASD	7	2.24	0.73	Medium
40	Food supplements used for students with ASD	8	2.21	0.75	Medium
4	Global criteria and benchmarks used for diagnosis of students with ASD.	9	2.19	0.63	Medium
41	Latest rate of ASD prevalence	10	2.19	0.67	Medium
33	Awareness of the history and interest in ASD	11	2.19	0.71	Medium
38	Causes of ASD	12	2.19	0.74	Medium
31	Diets used for students with ASD	13	2.17	0.79	Medium
14	Characteristics of ASD	14	2.14	0.68	Medium
3	Laws and regulations for students with ASD	15	2.10	0.73	Medium
21	New categorizations of ASD	16	2.10	0.76	Medium
30	Alarming indicators of ASD grave conditions	17	2.05	0.70	Medium
1	Participatory and cooperative relationship between teachers and families	18	1.95	0.76	Medium
	total average		2.19	0.38	Medium

Table (5) reveals that all (18) theoretical training needs were of medium significance, as well as the total average of this domain with a verage mean of (2.19) and average standard deviation of (0.38). Item (19) “Disorders and disabilities related to ASD” ranked first at a mean of (2.33) and a standard deviation of (0.65). Item (42) “Concepts and basic procedures related to behavior modification of students with ASD” ranked second and item (1) “Participatory and cooperative relationship between teachers and families” came last in order with a mean of (1.95) and standard deviation of (0.76) still of medium significance. Other items were shown in table (5).

Table (6) shows the results related to the importance of practical skills training needs from the perspective of teachers of students with ASD.

Table-6. Means, standard deviations and significance degree of items of practical skills training needs for teachers of students with ASD, (from their perspectives) arranged from most significant to least

Item number	Item	Order	Mean	Standard deviation	Significance degree
48	Procedures to build up and modify behavior	1	2.62	0.49	High
47	Documentation of child's progress	2	2.50	0.63	High
8	Apply training programs on using the lavatory	3	2.48	0.74	High
6	Arrangement of the classroom environment	4	2.45	0.71	High
27	Work in a multi-specialty team	5	2.40	0.63	High
39	Utilization of individualized educational program in teaching students with ASD	6	2.40	0.67	High
46	Utilization of educational techniques and mechanisms	7	2.40	0.67	High
13	Employment of daily routine in teaching students with ASD	8	2.38	0.66	High
16	Implementation of the program of Applied Behavior Analysis (ABA).	9	2.36	0.62	High
20	Implementation of special communication programs, like photos exchange and the facilitated communication program	10	2.33	0.65	Medium
11	Assessment of individualized educational program effectiveness	11	2.33	0.69	Medium
5	Differential diagnosis between ASD and other types of disorder	12	2.31	0.56	Medium
45	Classroom management	13	2.31	0.64	Medium
35	Making necessary modifications and adaptation in ordinary classes	14	2.29	0.64	Medium
12	Utilization and appliance of assessment tools with students with ASD	15	2.26	0.77	Medium
9	Utilization of visual effects in teaching children with ASD	16	2.24	0.73	Medium
7	Strategies to generalize skills	17	2.21	0.65	Medium
23	Inclusion of ASD students in ordinary schools	18	2.21	0.68	Medium
22	Preparation of educational and psychological reports on students with ASD	19	2.19	0.63	Medium
26	Addressing sex-related issues of ASD students	20	2.19	0.67	Medium
2	Communicating successfully with special education institutions specialized in ASD	21	2.14	0.65	Medium
36	Applying Methods to explore vocational desires and trends of students with ASD	22	2.12	0.67	Medium
44	Skills of planning required for teaching	23	2.12	0.74	Medium
28	Utilization of sensory intervention programs with children with ASD	24	2.12	0.77	Medium
15	Design of training programs for families of students with ASD	25	2.10	0.76	Medium
43	Referral of students for appropriate places	26	2.10	0.79	Medium
10	Interpretation of medical reports of ASD students	27	2.05	0.76	Medium
17	Counseling styles and methods for families having students with ASD	28	2.05	0.80	Medium
29	Utilization of stories in teaching ASD students	29	2.02	0.75	Medium
25	Utilization of TEAACH in teaching ASD students	30	1.81	0.74	Medium
	Total average		2.25	0.40	Medium

Table (6) reveals that the level of practical skills training needs' significance was between high and medium level. There were nine needs at high significance, with item (48) "Procedures to build up and modify behavior" ranking first at a mean of (2.62) and a standard deviation of (0.495) which is very high. Item (47) "Documentation of child's progress" ranked second. Other essential needs included in table (5). The total average mean of practical skills training needs was (2.25) at a standard deviation of (0.40). The means ranged from (1.81-2.62).

Referring to table (6), there were (21) practical skills training needs that were of medium significance, the lowest was the needs related to utilization of (TEAACH) in teaching students with ASD, besides other needs of medium importance. The researcher believes that the acquisition of such knowledge is basically achieved through pre-service programs in the university in addition to the practical experience during work. This result is consistent with Almaamaria and AL-Taj (2017), however, it disagrees with the result of Austin (2013). The difference in the results is due to the variance in the type of the sample, the nature of experiences and the approach of training offered in different environments

The researcher attributes these results to the fact that these skills are the maincore of dealing with children with ASD, taking into account that this requires empowerment of a team of teachers with multi-specialties in order to achieve the best outcomes. Moreover, most programs relating to this group of children are focused on cooperating with children's families since they need to be treated also at home.

3.2. Second: Results of the Second Question

Are there any statistically significant differences (at $\alpha = 0.05$) in the training needs of teachers for children with ASD during service that could be attributed to the variables of: gender, educational qualification and years of experience?

To determine the differences in the responses of the study sample individuals according to the variables of gender and years of experience, a Mann-Whitney test was performed, and the results related to each variable were clarified in tables (7) and (8) respectively.

3.2.1. The Variable of Gender

Differences in the means of the training needs of teachers of individuals with autism spectrum disorder, according to the variable of gender

Table-7. "Mann-Whitney" test results to determine the significance of the differences in the means of the training needs of individuals with autism spectrum disorder, according to the gender variable

Domain	Group	Number	mean	Average of ranks	U value	Z value	Significance
Theoretical training needs	Male	24	2.19	21.10	206.5	0.242-	0.809
	Female	18	2.20	22.03			
Practical skills training needs	Male	24	2.22	20.58	194	0.560-	0.576
	Female	18	2.29	22.72			
Overall training needs	Male	24	2.21	20.77	198.5	0.445-	0.656
	Female	18	2.26	22.47			

Statistically significant differences at ($\alpha=0.05$)

Table (7) indicates that there were no statistically significant differences in the means of training needs for teachers of students with ASD during service that could be attributed to the variable of gender for the subsidiary domains: theoretical training needs, practical skills training needs, as well as the overall training needs. Where the calculated (U) values for the differences on the two domains and the training needs as a whole were (206.5), (194) and (198.5) respectively, and the calculated (Z) values for the differences on the two domains and the training needs as a whole were (-0.242), (-0.560) and (-0.445) respectively, and these values are not statistically significant at the significance level ($\alpha \leq 0.05$).

This result means that the training needs of teachers of individuals with autism spectrum disorder during service do not differ according to their gender, that is, the sex factor is not a factor in assessing the importance of training needs of teachers of individuals with autism spectrum disorder during service.

The researcher attributes this to the same knowledge and skills males and females acquire through training programs during service or pre-service training regardless of gender. Since the contents of training courses are similar for both sexes, the training needs are also alike.

This result is consistent with Almaamaria and AL-Taj (2017) study findings which indicated that there were no statistically significant differences in the degree of training needs of the sample members that could be attributed to the variable of gender.

3.2.2. The Variable of Years of Experience

Differences in the means of the the training needs of teachers of individuals with autism spectrum disorder, according to the variable of years of experience.

Table-8. Results of the "Mann-Whitney" test to determine the significance of the differences in the means of the training needs of teachers of individuals with autism spectrum disorder, according to the variable of years of experience

Domain	Group	Number	Mean	Average of ranks	U value	Z value	Significance
Theoretical training needs	Less than 5 years	33	2.21	21.45	147	0.046-	0.963
	5 years or more	9	2.12	21.67			
Practical skills training needs	Less than 5 years	33	2.29	22.77	106.5	1.289-	0.198
	5 years or more	9	2.09	16.83			
Overall training needs	Less than 5 years	33	2.26	22.24	124	0.752-	0.452
	5 years or more	9	2.10	18.78			

Statistically significant differences at ($\alpha=0.05$)

Table (8) indicates that there were no statistically significant differences in the means of training needs for teachers of students with ASD during service that could be attributed to the variable of years of experience for the subsidiary domains: theoretical training needs, practical skills training needs, as well as the overall training needs. Where the calculated (U) values for the differences in the two domains and the training needs as a whole were (147), (106.5), and (124) respectively, and the calculated (Z) values for the differences in the two domains and the training needs as a whole were (-0.046), (-1.289), (-0.752) respectively, and these values are not statistically significant at the significance level ($\alpha \leq 0.05$).

This result means that the training needs of teachers of individuals with autism spectrum disorder during service do not differ according to their years of experience, that is, the experience factor is not a factor in assessing the training needs of teachers of individuals with autism spectrum disorder during service.

The researcher argues that the majority of teachers who teach children with ASD, including those having long or new experiences in dealing with such group, lack the comprehensive and specialized expertise, information and skills in the domain of autism. In addition, most of them did not participate in specialized training programs for ASD. She explains that the experience of these teachers are but a direct practical expertise with these children which is based on teaching them according to specific aims within individual plans and programs. As the researcher elaborates, the absence of statistically significant differences among the selected groups of the sample could be attributed to the small number of the sample members and the lack of similar percentages regarding the distribution of groups by the experience in teaching. The researcher confirms that teachers think that the training needs are of high importance regardless of their teaching experience and reiterates that they need to receive intensive and regular training in addition to providing them with up-to-date information relating to autism and how to deal with students with ASD.

All in all, this result agrees with the results of Al Sukkar (2007) which revealed that the variable of educational experience does not have an impact on the sample's appreciation of having the required information and skills. This finding is also consistent with the results of the study by Almaamaria and AL-Taj (2017) which indicated that there were no statistically significant differences in the degree of training needs due to the years of experience.

Recommendations of the Study

The researcher recommends that:

- 1- Educational institutions and centers should carry out constant assessment of the needs of teachers of students with ASD in order to raise their awareness of this disability.
- 2- It is imperative to focus on developing special pre-service and in-service training programs for special education teachers, including teachers who deal with students with ASD with an emphasis on providing teachers with required theoretical and practical skills.

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