

# SOCIO-EDUCATIONAL COMPETENCIES REQUIRED FOR TEACHERS OF STUDENTS WITH AUTISM SPECTRUM DISORDER: PARENTS' PERSPECTIVE

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**Abstract.** *Introduction.* Autism spectrum disorder (ASD) is among the widely spreading disorders across the globe. Professionals in educational, sociological, and medical fields continuously investigate the effective ways to deal with individuals having ASD because they cannot be dealt in a similar way as others rather teachers have to immerse them in regular classes. Therefore, teachers should have sufficient training and developed competencies to deal with students with ASD

*Aim.* This study aims to explore the extent to which teachers of students with ASD possess of the cognitive competencies and skills necessary from the perspectives of students' parents.

*Methodology and research methods.* A quantitative method was adopted to analyse the data. The study sample included 45 parents. The tool used is a checklist of the socio-educational competencies needed for teachers of students with ASD developed by Mehidat et al. (2014). It consisted of 40 items, which determine the response rating scale for the estimation of parents' perception about the importance of socio-educational competencies needed for teachers.

*Results.* The results showed that the parents' estimation of teachers' possession of socio-educational competencies needed for teachers of students with ASD was average.

*Theoretical significance.* The current study contributes in enriching related literature as well as it may practically help in identifying the required competencies and highlighting the importance of teachers' possession of socio-educational competencies and skills to deal with students having ASD. So, the study helps educationists, policy-makers and most importantly teachers to focus on these important competencies and skills and work on learning them, and eventually can enhance the learning of students with ASD. As the study focuses on parents' perspective, it has a significant contribution in enhancing quality of education being provided to students with ASD and making them constructive individuals by enhancing their learning, because parents can evaluate the effect of these competencies and they can provide the best and most effective feedback.

*Practical significance.* There are different aspects of cognitive competencies and skills necessary for teachers of students with ASD to be addressed by special education stakeholders and policy-makers in the field of special education, particularly teaching children with autism spectrum disorders, when they consider and develop pre-service and in-service programmes for teachers of students with ASD. Most importantly, there is a dire need to develop awareness among teachers about the importance of their personal development for enhancing certain competencies and skills to enable them to identify autistic students and effectively deal with them to enhance their learning as well.

**Keywords:** autism spectrum disorder, parents' perspective, personal competencies, teachers' professional competencies.

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## СОЦИАЛЬНО-ОБРАЗОВАТЕЛЬНЫЕ КОМПЕТЕНЦИИ, НЕОБХОДИМЫЕ ПРЕПОДАВАТЕЛЯМ УЧАЩИХСЯ С РАССТРОЙСТВОМ АУТИСТИЧЕСКОГО СПЕКТРА: ВЗГЛЯД РОДИТЕЛЕЙ

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**Аннотация.** Введение. Расстройство аутистического спектра (РАС) является одним из широко распространенных видов расстройств во всем мире. Профессионалы в области образования, социологии и медицины постоянно изучают эффективные способы работы с людьми с РАС, потому что с ними нельзя обращаться так же, как с другими, а учителям необходимо погружать их в обычные занятия. Поэтому преподаватели должны иметь достаточную подготовку и развитые компетенции для работы с учащимися с РАС.

**Цель.** Это исследование направлено на изучение степени, в которой преподаватели учащихся с РАС обладают когнитивными компетенциями и навыками, необходимыми с точки зрения родителей учащихся.

**Методология, методы и методики.** Для анализа данных был использован количественный метод. В выборку исследования вошли 45 родителей. Используемый инструмент представляет собой контрольный список социально-педагогических компетенций, необходимых преподавателям учащихся с РАС, разработанный Mehidat и др. (2014). Он состоит из 40 пунктов, определяющих шкалу ответов для оценки представлений родителей о важности социально-педагогических компетенций, которыми должен обладать преподаватель.

**Результаты.** Результаты показали, что родители оценили степень владения учителями социально-педагогическими компетенциями, необходимыми преподавателям учащихся с РАС, как среднюю.

*Теоретическая значимость.* Настоящее исследование способствует обогащению соответствующей литературы, а также может практически помочь в определении необходимых компетенций и подчеркивании важности владения преподавателями социально-педагогическими компетенциями и навыками для работы с учащимися с РАС. Таким образом, исследование помогает методистам, руководителям и, что наиболее важно, учителям сосредоточиться на этих важных компетенциях и навыках и работать над их изучением, что в итоге может улучшить обучение детей с РАС. Поскольку исследование сосредоточено на точке зрения родителей, оно вносит значительный вклад в повышение качества образования, предоставляемого учащимся с РАС, и делает их конструктивными личностями за счет улучшения их обучения, потому что родители могут использовать эти компетенции и обеспечить наилучшие результаты и максимально эффективную обратную связь.

*Практическая значимость.* Существуют различные аспекты когнитивных компетенций и навыков, необходимых учителям учащихся с РАС, которые необходимо учитывать заинтересованным сторонам специального образования и политикам в этой области при рассмотрении и разработке программ подготовки и повышения квалификации для учителей учащихся с РАС. Самое главное, существует острая необходимость повышать осведомленность учителей о важности их личностного развития для повышения определенных компетенций и навыков, чтобы они могли выявлять учеников с РАС и эффективно работать с ними, чтобы улучшить их обучение.

**Ключевые слова:** расстройство аутистического спектра, родители, личностные компетенции, профессиональные компетенции, педагоги.

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## COMPETENCIAS SOCIOEDUCATIVAS REQUERIDAS PARA DOCENTES DE ALUMNOS CON TRASTORNO DEL ESPECTRO AUTISTA: PUNTO DE VISTA DE LOS PADRES

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**Abstracto. Introducción.** El Trastorno del Espectro Autista (TEA) es uno de los trastornos más extendidos a nivel mundial. Los profesionales de la educación, la sociología y la medicina están constan-

temente estudiando formas efectivas que permitan trabajar con personas autistas porque no pueden ser tratados igual que los demás y los maestros necesitan sumergirlos en actividades rutinarias. Por lo tanto, los docentes deben tener la formación suficiente y las competencias desarrolladas para trabajar con alumnos que sufran de este trastorno.

*Objetivo.* Esta investigación tiene como objetivo examinar en qué medida los profesores de estudiantes con síndrome autista poseen las competencias y habilidades cognitivas necesarias desde el punto de vista de los padres de los alumnos.

*Metodología, métodos y procesos de investigación.* Se utilizó el método cuantitativo para analizar los datos. La muestra del estudio incluyó a 45 padres de familia. La herramienta utilizada consiste en una lista de verificación de competencias sociopedagógicas requeridas por los docentes de estudiantes con síndrome autista, desarrollada por Mehidat et al. (2014). Consta de 40 ítems que definen una escala de respuesta para evaluar la percepción de los padres sobre la importancia de las competencias sociopedagógicas que debe tener el docente.

*Resultados.* Los resultados mostraron que los padres calificaron como “medio” el grado de dominio de los docentes sobre las competencias sociopedagógicas requeridas para los docentes de alumnos con trastorno del espectro autista TEA.

*Significado teórico.* Este estudio contribuye al enriquecimiento de la literatura relevante, y también puede ayudar de manera práctica a determinar las competencias necesarias y enfatizar la importancia de que los docentes posean competencias y habilidades sociopedagógicas para trabajar con estudiantes con trastorno del espectro autista TEA. De esta manera, la investigación ayuda a los metodistas, directores y, lo que es más importante, a los maestros a concentrarse y trabajar en estas importantes competencias y habilidades, que en última instancia pueden mejorar el aprendizaje de los niños con trastorno del espectro autista TEA. Debido a que el estudio se enfoca en la perspectiva de los padres, contribuye significativamente a mejorar la calidad de la educación brindada a los estudiantes con dicho trastorno y los convierte en individuos constructivos al mejorar su aprendizaje, porque los padres pueden usar estas competencias y brindar mejores resultados y una retroalimentación más efectiva.

*Significado práctico.* Hay varios aspectos de las competencias y habilidades cognitivas necesarias para los maestros de estudiantes con trastorno del espectro autista TEA que las partes interesadas en educación especial y los encargados de formular políticas deben tener en cuenta al considerar y desarrollar programas de capacitación y desarrollo para maestros de estudiantes con este trastorno. Lo que es más importante, existe una necesidad urgente de concienciar a los docentes sobre la importancia de su desarrollo personal para mejorar ciertas competencias y habilidades para que puedan identificar a los estudiantes con autismo y trabajar de manera efectiva con ellos para mejorar su aprendizaje.

**Palabras claves:** trastorno del espectro autista, padres, competencias personales, competencias profesionales, docentes.

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## Introduction

Autism Spectrum Disorder (ASD) is a complicated neurological disorder that has significant lifelong influences on the development of various skills and abilities of children [1, 2]. ASD is indicated as mutilation in social interaction and communication, along with extraordinary patterns of interests, activities and behaviours,

while “spectrum” indicates a variety of disorders that indulge a range of developmental severity, with symptoms ranging from mild to severe mutilations in various developmental areas [3]. ASD is one of the most common disabilities in recent years. Professionals in educational, medical and vocational fields continuously investigate the effects of ASD and the effective ways to deal with individuals having it because individuals or students with ASD could not be dealt in a similar way as others [4, 5] rather teachers have to face challenges to immerse learners having ASD in regular classes. So, teachers require sufficient training and development to have skills and competencies required for dealing with students with ASD [2, 6].

### **Importance of Teachers’ Competencies**

ASD is among the rapidly increasing disorders faced by almost all nations including developing and developed ones. Such increased frequency of ASD compels schools, educationists, policy-makers, teachers and other staff to create and implement an inclusive educational environment enabling them to meet the requirements of students with ASD [7–9]. Despite the enhanced efforts focused on educating students with ASD in regular education classrooms, most of the teachers are not well-trained to teach and deal with such students, which affect their learning [8, 9].

Dealing with students with ASD requires special personal and professional characteristics, and the issue of teachers’ competencies for students with ASD has been particularly important, because students with ASD cannot be dealt in a regular manner rather they require certain skills and competencies [10, 11]. Another critical concern is ensuring teachers’ personal characteristics, educational competencies and performance skills necessary to work with students with ASD as it facilitates the identification of training needs and personal characteristics’ development of these teachers which eventually is reflected through enhanced quality of teaching and learning process of students with ASD [5, 12].

L. Anderson states that students with ASD face challenges in communication and socialisation and are not able to cope with the changing social demands, while these challenges could be eliminated and their self-perception, social skills and quality of life could be enhanced through teachers’ particular competencies and skills [10]. C. Rice points out several reasons of highlighting significant attention towards personality and skills characteristics of teachers teaching students with autism disorder, such as the prevalence of the number of students with ASD, the challenges faced by educators of students with ASD and the need for teachers to possess the competencies and skills that qualify them to use effective intervention strategies with knowledge of the legislation and laws related to that category of students [12]. A. Al-Rashid also argues that teaching in general requires special personal characteristics that enable teachers to withstand the pressures they face in their career. Therefore, personal characteristics are the most important concern for educational stakeholders in the field of special education especially teaching children with autism spectrum disorders [13]. S. Partlo states that teachers are

typically supposed to meet students' academic needs, individual support and service needs, communication and language needs, disciplinary needs and structured learning environment needs. So, teachers are also supposed to meet all these needs of students with ASD [8].

The evaluation process of these characteristics aims to guide and assist those working in the field to help students with ASD and their families throughout life starting from the diagnosis stage to treatment and teaching programmes. It also helps educators and experts in developing university courses concerned with the development of these personality traits as a prerequisite for success in special education careers [4, 14]. Moreover, teachers' perception about the required resources and support is also important [8, 15, 16]. In general, the identification of the personal and professional characteristics needed by a specialist working in special education also contributes to the formation of a practical framework to prepare specialists to work with students with ASD and to develop a training guide for the purposes of developing workers and improving their services provided to students with ASD [14].

M. Mehidat et al. aimed at identifying the importance of cognitive competencies and skills for teachers of students with ASD in Jordan [17]. The results showed that the teachers' estimations of the importance of having knowledge competencies and required skills for teachers of students with ASD were low, whereas their estimations to the degree of having these competencies and skills were moderate. Therefore, there is a dire need to highlight the importance of possessing particular skills and competencies required for dealing with students with ASD to enhance their learning. Al-Dhmoore investigated the extent to which workers possess the necessary educational competencies to work with students with special needs in early childhood, indicated that workers lack the necessary competencies to work with those with special needs in early childhood [18].

Also, O. M. Abu-Sukkar's study aimed at determining the ASD's teachers training needs from the point of view of these teachers and their evaluation of the two degrees of importance and knowledge and skills related to the education and training of students with ASD in Syria [19]. The results showed that there is a high estimation of the two degrees of importance and possessing knowledge and skills. Strong states that teachers' personnel development is critically important which could be achieved by influencing teachers' perception and their self-efficacy about their training and development which is highly influenced through evidence-based practices, because unless teachers are well aware about the importance of their training and personnel development, they will be less responsive towards getting trained and developed accordingly [20, 21]. Moreover, some significant components of such developmental programmes are typical course work, field-based learning, online simulation and video role play, observation of different learners with ASD, and most importantly observation of other participants' teaching practices for having evidence-based practices with students with ASD.

S. Partlo argues that students with ASD possess varying characteristics that require minor or major modifications in curriculum and class environments, which could be identified through effective teaching competencies [8]. Some of the most important competencies required for dealing with students having ASD are the ability to get them engaged based on their needs, interests and learning styles. Another important component is the proper planning, implementation and evaluation of systematic instructions. Significantly, the structure of learning environment contributes effectively in designing an efficient educational programme for students with ASD.

L. Anderson emphasises on the inclusion of students with ASD in general education systems because segregated school systems are not the perfect solution rather they cause widespread dissatisfaction among parents and professionals [10]. Inclusion is not limited to the placement of students with ASD in typical classrooms rather having an access to a high-quality school situation with fulfillment of academic and social needs of students with ASD and involving them in communities where they do not feel inequality [21]. Majoko argues that although inclusion of students with ASD in general classrooms is a major challenge faced by teachers, they could effectively cope with this challenge with their motivation and reinforcement for developing and sustaining students' behaviour to get them indulged in regular classrooms. Moreover, academic and environmental modifications may result in effective outcomes [6]. Teachers are also required to teach social skills to students with ASD to get them involved in regular class rooms.

J. Furrukh and G. Anjum pointed out that students with ASD face constant difficulty in social interactions and communication along with stereotyped patterns of activities, interests and behaviours [3]. Therefore, teachers require to be capable of identifying students' individual weaknesses through their individual assessments to be able to instruct them accordingly especially to the students lacking socialisation and communication. Through such efforts, teachers can enhance students' learning which will eventually eliminate their behavioural issues as well.

### **Importance of Parents' Perspective**

Parents have a significant role in students' education. So, their cooperation and involvement with educationists can assist in developing perspectives and relevant information that enhance educationist's understanding about students. Parents' involvement not only enhances the effectiveness of programme planning but also facilitates the determination of methods, educational objectives and motivational strategies that could be the best for enhancing students with ASD's learning [22, 23]. Not only teachers, but also parents face challenges in identifying and understanding the disorders of their students because each student with ASD tends to be unique so there is no general template about responding towards such disorders. Rather, parents require focused attention towards their child's behavioural issues, and involvement in their medical treatments as well as education. They not only require getting involved and developing close relationships with the child's therapist but

their relationship with child's teacher is also significantly important [23, 24]. The role of family is considered essential in implementing educational and therapeutic programmes for students with ASD. Students with ASD spend most of their time with their family who monitor and observe most likely any problems or developments in their behaviour, so the feedback and evaluation provided by parents is very important in the effectiveness of the specialists and their training and treatment programmes, thus parents play a major role in the success of these programmes. The family also helps specialists to understand many aspects of student's strengths or weaknesses. These behaviours do not usually appear in places of observation and examination such as a clinic or centre but rather appear in the family only because the child does not do them except at home, so parents' active participation is critically significant throughout all stages [25–27]. The involvement of the family could be effective in case when a strong parent-teacher relationship is developed, while various factors contribute in developing such relationship and have significant impact on family involvement [28]. These factors are child characteristics, sources of support, education of parents and their satisfaction towards teaching services provided to their children. Mostly parents believe that they have a significant role in their child's education including the particular decision of, to what extent they should be involved with child's education [29]. Hence, such family involvement and a sound parent-teacher relationship have significant impact on students' learning and their outcome. Higher developmental risks of ASD are reported in students having less involvement from their families or having poor parent teacher relationships [30].

Similarly, parents of the student with ASD have the right to determine the characteristics required for the teacher who teaches their child. Such determination provokes educational stakeholders and policy-makers to consider these characteristics or competences when they prepare teachers during the pre-service or in-service training programmes. Moreover, parents' perspectives and their priorities for certain skills and characteristics facilitate educationists and policy-makers' focus on particular aspects of teachers' training and development as well as motivate them for coping with the challenges they face while dealing with students with ASD and challenges they face which enhances their learning [29, 30]. J. Furrakh and G. Anjum highlighted certain factors, identified by mothers of students with ASD that could effectively contribute in highlighting the required competencies possessed by teachers of students with ASD [3]. Mothers reported that teachers' patience is among one of the most important factors as most of the time students with ASD show no reaction or response towards any activity. In such critical times, despite their close to denial response, teachers have to encourage these students so that they may respond later effectively. Moreover, enhanced attention of teachers is identified as an important factor that can enhance students with ASD's learning. The above discussion indicates that parents are the key characters identifying the needs of students with ASD and the ways, attitudes, behaviours, skills and competencies to fulfill such needs. In light of this, the current study intends to answer the main research ques-



tion which is: To what extent teachers of students with ASD should possess the cognitive competencies and skills required from the point of view of parents?

The current study contributes in enriching related literature as well as it may practically help in identifying the required competencies and highlighting the importance of teachers' possession of such competencies and skills to deal with students having ASD. So, it will help educationists, policy-makers and most importantly teachers to focus on these important competencies and skills and work on learning them, and eventually can enhance the learning of students with ASD. As the study focuses on parents' perspective, it has a significant contribution to enhancing quality of education being provided to students with ASD and making them constructive individuals by enhancing their learning, because parents can evaluate the effect of these competencies and they can provide the best and most effective feedback.

## Methodology, materials and methods

### The Population and Sample of the Study

The current study population is made up of all parents who have children with autism. And the sample consisted of parents who agreed to participate of the study. Table 1 shows the distribution of the study sample according to its independent variables. The number of participants, who agreed to participate and responded to the study tool, were 55 parents (18 males and 37 females).

Table 1

#### Demographic information

Variables		Number
Gender	Female	37
	Male	18
Education	Bachelor	40
	Intermediate Diploma	15

### Study Tool

The process of developing a list of educational competencies necessary for teachers of children with autism has gone through the following stages:

– Preparing and building a list of competencies based on the proposed competencies for teachers of special education, which are proposed for special education teachers working with children with ASD in the state of Minnesota in 2003. The list was developed after a thorough study and review of the standards of professional practice in the field of teaching students with ASD and approved by the Council for Exceptional Children (CEC). It is one of the largest specialised professional organisations that are committed and concerned with the development of educational outcomes for individuals with disabilities and talented people. It studies the documents of professional organisations concerned with developing

programmes for children with ASD, makes recommendations related to the programmes of prestigious universities concerned with developing the competencies of professionals working with children with ASD in many states in the USA.

– Determining a list of the cognitive competencies and the necessary basic skills for teachers working with children with ASD, and showing an appropriate way to the reality of the programmes and services provided for children with ASD in Jordan, which is in its initial form included 40 items adapted from the study of M. Mehidat et al., who measure most of the cognitive competencies and skills necessary for teachers of children with ASD in which the checklist was validated by the researchers [17].

### **Study Variables**

The study included the following variables:

1. Two independent (classification) variables: The gender of the teacher (male and female), and qualification (Intermediate Diploma in Special Education, and Bachelor of Special Education).

2. Two dependent variables: The importance of cognitive competencies and skills necessary for teachers of children with ASD, and the degree of possession of the necessary cognitive competencies and skills for teachers of children with ASD.

### **Study Procedures**

The study followed the following procedures:

1. Listing the centres that provide programmes and services for children with ASD in the city of Amman, and determine the number of male and female teachers there.

2. Visiting the ASD's centres in the city of Amman, and holding a meeting with the technical directors in these centres to clarify the objectives of the study and explain the components of the list, and then they introduced the children's parents about the goals of the study. Some parents showed their willingness to participate in the study. The checklists were sent to the parents via email.

3. Collecting questionnaires via email for the purposes of data entry and statistical analysis.

### **Data Analysis**

The tool used in this study is a checklist of the educational competency needed for teachers of students with ASD developed by Mehidat et al. The checklist consisted of 40 items which determine the response rating scale for the estimation of parents' perception about the importance of cognitive competencies and the skills needed for teachers of students with ASD [17]. It estimates the degree to which students with ASD's teachers possess these competencies and skills, distributed on three levels according to their weight as follows: high = 3, medium = 2, and low = 1. Thus, the overall score ranges of the checklist are between 40–120 for each aspect

of importance or degree of mastery. The validity and reliability of the tool was determined and examined in the study of M. Mehidat et al. and their tools' validity and reliability of the tool are considered acceptable for the purpose of current study. The researchers selected the listed centres in Amman City (6 centres) that provide programmes and services for students with ASD [17]. In the first semester of the academic year 2020–2021, the researchers visited those centres and took permission from the responsible administrators. Then, they met the managers of these centres. While explaining the purpose of conducting the study, the researchers asked them if it was possible to provide them with the contact details of parents who have children with ASD and will participate in the study. The managers contentedly provided the targeted parents' contacts after consulting them. A group of 45 parents agreed to participate in the study. After that, the researchers sent the checklist through email to the parents because of the COVID-19 pandemic circumstances and the lockdown. All the participants filled and returned the checklists. The researchers used the Statistics Package for Social Sciences (SPSS) version 22 for data analysis.

## Results

To answer the research question “To what extent teachers of students with ASD should possess the cognitive competencies and skills required from the point of view of parents?” the means and standard deviations of the responses of the participants were calculated on the checklists as a whole according to each item.

Table 2  
 The means and SD of the importance of owning cognitive competencies and skills

No.	Item	Means	S.D.	Degree
1.	Being acquainted with the criteria for autism programmes issued by the Supreme Council for the Affairs of Persons with Disabilities.	2.30	0.65	Average
2.	Being able to participate in continuing professional development activities in the field of autism.	2.22	0.75	Average
3.	Being able to access to theoretical and research information, and legal and medical requirements related to promising practices in educating individuals with autism.	2.13	0.69	Average
4.	Being able to apply teaching methods and strategies based on research results in teaching autistic children.	2.10	0.65	Average
5.	Being acquainted with professional sources such as publications, magazines, specialised organisations, and websites related to autism.	2.09	0.60	Average
6.	Being able to exchange results of research and other sources of information related to autism with parents and school staff.	2.06	0.65	Average
7.	Being acquainted with the effects of medical and neurological trends in the education of autistic individuals.	2.04	0.79	Average

8.	Being able to interpret evaluation results to design appropriate interventions for autistic individuals.	1.80	0.63	Average
9.	Being acquainted with theories and research findings related to special education programmes and support services provided to individuals with autism.	1.79	0.75	Average
10.	Being able to collect and interpret data indicating the progress of students with autism, and make necessary adjustments in the programme when needed.	1.79	0.74	Average
11.	Being acquainted with interactive strategies for teaching compatible behaviours for autistic children, reducing antisocial behaviours, reducing the use of exclusion strategies and addressing the crisis.	1.76	0.79	Average
12.	Being able to use interactive strategies to support positive behaviour among autistic students.	1.74	0.80	Average
13.	Being able to design the educational environment by making adjustments to identify the visual, auditory, and other sensory needs of students with autism.	1.73	0.60	Average
14.	Being able to provide training for parents, new teachers, and other school staff to improve services for individuals with autism.	1.72	0.66	Average
15.	Being able to apply functional behaviour assessment with attention to sensory needs, and apply the results in programming for autistic individuals.	1.70	0.80	Average
16.	Being able to use procedures and tools for detection and evaluation for the purposes of determining the eligibility of autistic children to receive educational and support services.	1.70	0.60	Average
17.	Being able to write behaviour modification plans for individuals with autism that include teaching preventive and alternative skills and patterns of behaviour.	1.69	0.76	Average
18.	Being acquainted with highly structured teaching methods, communication systems, environmental modifications and their potential effects in managing the behaviour of autistic individuals.	1.68	0.73	Average
19.	Being acquainted with the strengths and weaknesses of the procedures and tools used in detection and evaluation for the purposes of determining the eligibility of autistic children to receive educational and support services.	1.68	0.72	Average
20.	Being acquainted with the results of research supporting the methods and practices of teaching autistic children.	1.66	0.65	Average
21.	Being able to use educational programmes aimed at identifying the transitional needs of individuals with autism in employment, training, home living, recreational activities, education and community living in the after-school stage.	1.66	0.68	Average

22.	Being acquainted with the educational and educational services and options available to individuals with autism	1.63	0.70	Average
23.	Being able to design and implement educational programmes that enhance and encourage effective communication skills using verbal communication methods, and alternative communication systems for autistic individuals.	1.62	0.75	Average
24.	Being acquainted with the effects of the characteristics of autistic children on taking advantage of casual learning opportunities.	1.61	0.63	Average
25.	Being acquainted with the communicative, behavioural and social characteristics of autism, and the conditions associated with it.	1.60	0.66	Average
26.	Being able to cooperate with workers to make environmental adjustments for autistic students who are enrolled in the regular class and in other natural situations such as the home and the day institution.	1.59	0.75	Average
27.	Being acquainted with teaching desirable verbal and non-verbal social communication methods and encouraging alternative ways to address the undesirable behaviours of autistic children.	1.58	0.71	Average
28.	Having knowledge of the potential effects of mental and sensory health factors, nutrition, and medications on the behaviour of autistic individuals.	1.57	0.70	Average
29.	Being acquainted with development programmes for workers in the field of autism and their effects on autistic individuals from childhood to adulthood.	1.56	0.50	Average
30.	Being acquainted with the functions of behaviour, and the purposes of the intended communicative behaviours (functional behaviour analysis).	1.56	0.64	Average
31.	Being able to provide highly organised adjustments in the educational environment for students with autism, such as: the use of visual images and tables, transitional management methods, classroom routine, and others.	1.55	0.68	Average
32.	Being able to communicate with other parties outside the institution, such as occupational therapists, speech therapists, sensory integration services, doctors, psychologists and those working with autistic individuals.	1.54	0.67	Average
33.	Being able to employ the uses of assistive technology in the education of autistic individuals, such as the image exchange system, electronic means, sensory equipment, visual tables, and others.	1.53	0.71	Average
34.	Being able to use educational programmes useful in improving communication skills and social interaction between students with autism, their peers and adults in various situations.	1.52	0.72	Average

35.	Being able to enhance the development of social skills for individuals with autism by encouraging continuous peer interactions, direct instruction, and role playing in various situations.	1.51	0.61	Average
36.	Being able to apply a range of direct teaching strategies to enable the autistic student to generalise the skill.	1.50	0.66	Average
37.	Being able to communicate with parents and other staff about early indicators, characteristics, and learning models for students with autism.	1.49	0.65	Low
38.	Being acquainted with the methods and strategies of managing and controlling the behaviour of autistic individuals.	1.48	0.62	Low
39.	Being acquainted with the initial indicators of autism disorder in the early stages of childhood, kindergarten, and school.	1.47	0.60	Low
40.	Being able to write and implement individual goals for autistic students based on the results of their evaluation and diagnosis.	1.44	0.68	Low
<b>Total</b>		1.71	0.43	Average

Table 2 reveals that parents' estimation was average in terms of teachers' possession of cognitive competencies and skills needed for teachers of students with ASD with a mean of 1.71 and a standard deviation of 0.43. The parents estimated the degree to which the teachers of students with ASD possession of most of the cognitive competencies and skills was an average level, while they estimated the degree of possession of the four competencies at a low level. They did not estimate the degree of their possession of any of these competencies and skills at significantly high level as well. Furthermore, the competency of participation in continuous professional development activities and activities in the field of ASD was ranked first in terms of their degree of possession with a mean of 2.34, and a standard deviation of 0.68, followed by the possession of the competence of writing and implementing individual goals for students with ASD with an average of 2.21 and a standard deviation of 0.80. The competency of familiarity with the standards of ASD programmes issued by the Higher Council for the Rights of Persons with Disabilities was the least estimated with a mean of 1.43 and standard deviation of 0.70. The second lowest degree of having competence familiarity with the primary indicators of ASD in early childhood, kindergarten, and school was with a mean of 1.45 and a standard deviation of 0.63.

## Discussion

The results showed that the parents' estimation of the degree to which teachers possess the cognitive competencies and skills needed for teachers of students with ASD are average in general. However, they estimated the degree of their possession of four competencies at a low level, and they did not estimate the degree of their possession of any of these competencies and skills at significantly high level

as well. These results are consistent with N. Al-Dhmoore's findings which indicate that workers in early intervention programmes possess the necessary competencies to work with people with special needs in early childhood with a moderate degree [18]. The results of the current research indicate that the personal and professional development programmes and training sessions provided to workers and teachers dealing with students with ASD are insufficient and are at a very basic level. So, these do not fulfill the exact requirement of effective and efficient training and developmental programmes. Such findings highlight the facts about the need for enhancement of programmes and emphasise the need for training programmes based on competencies in the areas of assessment and diagnosis of ASD as well as enhancing the skills and competencies to deal with students with ASD in an effective manner.

On the other hand, the results of the current study are inconsistent with O. M. Abu-Sukkar's findings which indicate that the ratings of the participating teachers were high in the degree of possessing knowledge and skills related to teaching students with ASD [19]. This difference may be attributed to teachers' exposure to professional development opportunities in the field of ASD and the different context of each study. The study also indicates that there are weaknesses among teachers in terms of the element of personal and professional competences. This may be due to the lack of specialised programmes to prepare teachers in the field of training students with ASD at pre-service or in-service levels, which reflects negatively on their degree of possession of these competencies compared to the accreted international standards in this regard [14].

Furthermore, such results could be explained as a result of the failure of official authorities to engage teachers working in this field with specialised workshops aimed at developing their awareness about the importance of these competencies and enabling them to practice in their day-to-day duties in accordance with global developments in this field. Also, the study indicates that there is a lack of cooperation among relevant authorities or education bodies which are in charge of this category of special education specifically and in the field of special education in general. However, the results of this study are limited to the conditions and settings in which the study was conducted and cannot be generalised unless the same conditions and settings are employed specially the method, sample, the study tool and the data collection and analysis.

## Conclusion

The current study aimed at exploring the extent to which teachers of students with ASD possess the cognitive competencies and skills necessary for teachers of students with ASD from the point of view of parents. The results showed that the parents' estimation came degree of average in terms of teachers' possession of cognitive competencies and skills needed for teachers of students with ASD. There were different aspects of cognitive competencies and skills necessary for teachers of students with ASD to be addressed by special education stakeholders and poli-

cy-makers in the field when they consider and develop pre-service and in-service programmes for teachers of students with ASD.

This calls for the creation of training programmes for teachers at the pre-service and in-service levels in universities to enable them to provide effective services, programmes and remedial interventions for students of this category. In light of the results, the study recommends the Jordanian universities to fill the shortage in the number of trained cadres by making use of the list of competencies needed for child labor, offer additional courses in ASD to bachelor's programmes, develop programmes, and prepare qualified cadres at the level of Jordanian universities. It recommends the Ministry of Education, the Ministry of Social Development and the Higher Council for the Rights of Persons with Disabilities to jointly coordinate the development of policies to provide appropriate capabilities to provide training and professional development programmes based on competencies and the results of scientific studies. The ministry should issue a system for practicing the profession of special education after passing a clear test to ensure that teachers possess the competencies and skills necessary for students with people with ASD. Most importantly, there is a dire need to develop awareness among teachers about the importance of their personal development for enhancing their certain competencies and skills to enable them to identify students with ASD and effectively deal with them to enhance their learning as well.

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