

Knowledge and Attitudes of Special Education Teachers Towards the Inclusion of Students with Autism Spectrum Disorder

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Abstract

This study aimed to find out the attitudes of special education teachers about including students with autism spectrum disorder in general education schools and the extent of their knowledge of autism spectrum disorder in the United Arab Emirat) Abu Dhabi (. To achieve the objectives of the study, a tool (a questionnaire) was adopted to identify their knowledge of autism spectrum disorder and their attitudes towards including them in schools. The study sample consisted of (N = 80 special educators). Data for this study was collected by distributing online questionnaires to all participants.

The results of the study showed that 68% of the participants in the stud correctly answered the questionnaire on knowing the characteristics of autism spectrum disorder, as well as 73% of the participants in the study showed positive attitudes about including students with autism spectrum disorder in regular schools. The study suggested providing training programs to raise the level of teachers' knowledge of autism spectrum disorder, as well as to clarify the importance of the teacher's positive attitudes for the success of including autism spectrum disorder students in regular schools.

Keywords: Teacher Knowledge, Teacher attitudes, Autism, Inclusion.

1. INTRODUCTION

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by persistent deficits in social communication and social interaction, and restricted, repetitive patterns of behavior, interests, or activities [1].

Knowledge of practice is another highly salient variable related to successful inclusion [2]. teachers who have students with ASD in their classroom should receive training on instructional techniques and interventions for students with ASD [3]. As ASDs are complex developmental disorders with variable presentation and a countless list of practices and strategies for education, teachers must demonstrate accurate and adequate knowledge of ASD for inclusion to be successful [1].

According to many researchers, positive teacher attitudes are among the most important

variables influencing successful inclusion of children with disabilities in regular classrooms (for example, [4][5].[6].[8]. The evidence base examining teacher attitudes toward including children with exceptionalities in regular classrooms have grown substantially in the past 25 years. As the prevalence of autism has risen in recent years, the enrollment of children with autism spectrum disorders (ASD) in public school settings have increased as well [9]. However, nothing is known about teacher attitudes about incorporating autistic students.

The nature of the disorder has far-reaching ramifications for how children with autism operate in regular education settings. Within the social and communication domains, children with autism have difficulty with eye contact, social orienting, joint attention, symbolic play, imitation, nonverbal communication, and language acquisition [10][11][12]. Atypical

behaviors can be the most visible characteristic of ASD and may include rigid routine adherence to nonfunctional routines, repetitive, perseverative, preoccupations, self-injurious or stereotyped [15]. Children with autism have difficulty understanding the nuances of social behavior and may appear to be uninterested in interacting with others [13].

In social and self-care areas, this diagnosis affects the child's ability to learn incidentally, and may require direct teaching of skills children typically acquire naturally. Children with autism have been found to have difficulty with organization, which makes transitioning and completing tasks and activities challenging. [14].

Teacher characteristics such as attitude and behavior can also help students with ASD integrate successfully. Based on professional opinion, teachers of students with ASD should be kind, patient, and predictable [15][16] and able to model and promote tolerance, acceptance, and understanding among the students in the class [17]. Additionally, as students with ASD typically have difficulty developing social competence [18] [19]. Teachers must protect them students with ASD from bullying [22] and can serve as "social translators" in the classroom. When a student with ASD has difficulty expressing thoughts, for example, the teacher can intervene to help the student communicate. Similarly, if non-literal discourse (e.g., sarcasm) is not understood by students with ASD, the teacher can translate the communicative intent [20].

Many educators and researchers believe that instructors' attitudes toward the practice of inclusion are a significant factor of the success of inclusive education for students with ASD. That is, personnel responsible for making inclusion successful should hold encouraging views towards the policy to maximize its chances of success. While there is limited research on attitudes towards the inclusion of students with ASD, much research has been conducted on the attitudes that educational professionals hold towards the general concept of inclusion [21][22].

Attitudes towards mainstreaming, integration, and inclusion suggest that teachers hold positive views towards the general concept (see [23][24] for reviews). However,

there are a variety of factors which influence the opinions of teachers, including type of disability; severity of disability; experience and contact with students with disabilities; training, experience, and knowledge of disability; and access to resources and support ([25][26].

While few studies investigating educator attitudes towards inclusion have focused on inclusion for students with ASD, several hypotheses can be made based on the related literature. Because the kind and severity of impairment have been found to influence opinions, attitudes toward students with ASD are likely to be less positive than attitudes toward students with other disabilities. ASDs "are characterized by severe and pervasive impairment in many areas of development," according to the DSM-IV-TR (2000). (p. 69) Furthermore, the rarity of ASDs compared to learning difficulties, for example, may cause instructors to report less favorable attitudes. Contact theory predicts fewer positive attitudes about including students with ASD in mainstream education settings because educators may have had limited contacts and experiences with them. On the other hand, educators who have special education training and/or specific experience with students with ASD [27] will likely demonstrate stronger positive opinions about inclusion for such students than educators without such training and experience. Purpose of the Present Study.

2. Study Method

This study is a descriptive design method, in which an online survey is conducted. The study population will include 150 special education teachers distributed over 101 schools according to the four educational domains. The study sample was randomly selected from two educational domains, where the questionnaire will be distributed to all 80 teachers of special education in the two domains. Data for this study were collected by distributing online questionnaires to all participants.

2.1 Participants

The study sample consists of special education teachers in government schools in Abu Dhabi city in the range of 3/5 and in the range of 4/5. And a sample (N = 80) to answer the questions of the questionnaire.

Table 1 *The research samples*

Stages	KG	C1	C2	C3	Total
School	8	12	11	10	41
SEN.T	16	24	22	18	80

2.2 Instruments

Tow Adapted Instrument

1-Teachers' Knowledge and Perceptions of ASD. [28].

It included the ASD Knowledge Scale prepared by Low, H.M, Lee, L.W, & Che Ahmad, A. (2020). (8) paragraphs that must be answered with yes or no.

2-Autism Attitude Scale for Teachers (AASST) [28].

In our study, the researcher used the AASST scale, which was prepared by Low, H. M., Lee, L. W., & Che Ahmad, A (2020). It included (12) paragraphs the attitude towards educational inclusion Scale The participants were instructed to give their responses for each item in a 5-point Likert scale: 1-strongly disagree, 2-disagree, 3-unsure, 4-agree, and 5-strongly agree. For the questionnaire to fit the Arab environment, we translated it into Arabic and modified the answers according to the recommendations of the validation arbitrators to 3 alternatives instead of 5.

2.3 Statistical Standards

The Three-point Likert scale was adopted to correct the study tools, by giving each of its paragraphs one score out of 3 degrees (Agree, Neutral, Disagree) and are represented numerically (3, 2, 1) on Ranking. The scale was planned to use the following equation: The upper limit of the scale (3) - the lower limit of the scale (1).

Table 2 *Correlation Coefficients between the Paragraph, the Overall Score, and the Domain to which it Belongs.*

Item's No	Correlation coefficient		Item's No	Correlation coefficient	
	With the domain	With the tool		With the domain	With the tool
1	.91(**)	.73(**)	11	.84(**)	.82(**)
2	.71(**)	.60(**)	12	.82(**)	.47(*)

2.4 Procedures

Two weeks of instructions and implementation of the study, from the end of April until the end of mid-May 2021, before starting the researcher took the approval of the Emirates Foundation for School Education to distribute the questionnaire to special education teachers and to ensure the validity and reliability of the study tools. and the reliability factor was also calculated using the internal consistency method according to Cronbach's alpha equation. To measure the validity of the questionnaires, they were presented to 19 judges, including university professors and experts in special education, in addition to calculating the validity of the internal construction. The next section details this.

2.5 Validity and reliability of the study tools

Validity: The tool was presented to 19 experts in special education, autism spectrum disorder, and education in general, to know their views on the items (in terms of their comprehensiveness and relevance to the purpose of the study), and the judges showed their agreement with the items that had 90% agreement with their request to amend the wording of some Paragraphs to appear easier and more appropriate and the answer is 3 paragraphs, not 5.

In addition to extracting construct-fitness semantics for the scale, correlation coefficients for each item and the overall score, between each item and its correlation to the domain it belongs to, between domains and the overall score Table 2 below illustrates this.

Item's No	Correlation coefficient		Item's No	Correlation coefficient	
	With the domain	With the tool		With the domain	With the tool
3	.90(**)	.69(**)	13	.92(**)	.75(**)
4	.95(**)	.80(**)	14	.90(**)	.71(**)
5	.88(**)	.78(**)	15	.89(**)	.73(**)
6	.82(**)	.67(**)	16	.81(**)	.64(**)
7	.90(**)	.81(**)	17	.95(**)	.81(**)
8	.80(**)	.80(**)	18	.80(**)	.80(**)
9	.81(**)	.81(**)	19	.95(**)	.81(**)
10	.90(**)	.81(**)	20	.70(**)	.77(**)

* Statistical function at the significance level (0.05).

** Statistically significant at the level of significance (0.01).

Note that all correlation coefficients were of acceptable scores and statistically significant, and therefore none of these paragraphs was omitted.

Reliability: To ensure the reliability of the study tool, the test-retest method was verified

by applying the scale and re-applying it after 2 weeks to a group from outside the study, a sample consisting of (20), and then the Pearson correlation coefficient was calculated between their estimates on both times.

Table 3 Cronbach's Internal Consistency Coefficient, Alpha, and Repetition Constant for Fields and Scores

Field	reliability of repetition	Internal consistency
Teachers' Knowledge and Perceptions of ASD.	0.79	0.90
Autism Attitude Scale for Teachers (AAST)	0.76	0.86
Total	0.87	0.89

Table 4 Answers of SEN Teacher

3. Results and Analysis

To answer the question about the knowledge of special education teachers of autism spectrum disorder, the following table shows the percentage of correct answers for each item of the questionnaire 8.

Items	M
1	%59
2	%59
3	%65
4	%76
5	%76
6	%59

7	%94
8	%59
Total	68%

Table 5 *Attitudes Towards Inclusion for ASD Student in Regular School*

Items	M
1	%76
2	%53
3	%70
4	%47
5	%47
6	%76
7	%59
8	%70
9	%76
10	%76
11	%70
12	%76
Total	%73

Table (4) shows the responses of special education teachers about their knowledge of autism spectrum disorder, where 59% of the sample answered correctly to items (1, 2, 6, 8), 63% of the sample answered correctly to item (3) and 76% answered correctly on items (4, 5) and on item (7), the percentage of correct answers was 94%. In general, the results showed that 68% of the study sample had correct knowledge about autism spectrum disorder.

Table (5) shows the attitudes of special education teachers towards including people with autism spectrum disorder in regular schools, as 76% of the sample showed positive attitudes on items (1, 6, 9, 10, 12) and 70% showed positive attitudes on items (3, 8, 11) and 59% showed positive attitudes on item (7) and 53% showed positive attitudes on item (2) and in negative items (4, 5) the participants showed positive attitudes by 53% and in general 73% of the research participants showed positive attitudes Regarding the

inclusion of students with autism spectrum disorder in regular schools.

4. Discussion

For public schools, educating students with autism spectrum disorders (ASD) is a difficult task. Many children with ASD are included in general education for full or part of the school day for legal and educational reasons [29]. The current study aimed to identify the attitudes of special education teachers in the city of Abu Dhabi in the United Arab Emirates regarding the inclusion of students with autism spectrum disorder in regular schools, as well as to verify their knowledge about autism spectrum disorder.

This study aimed to identify special education teachers' attitudes towards inclusive education for students with ASD and the factors that influenced their attitude via a survey with 80 special education teachers in the ABUDAHBI CITY, UAE. By utilizing the Autism Attitude Scale for Teachers (AASST), the AASST score from the current study indicated that the special education teachers had a more positive attitude towards inclusive education for the students with ASD. In this study, special education instructors had a negative attitude about 'expecting non-special education teachers to teach students with ASD' (item C8) and 'teachers without substantial special education training to support a child with ASD' (item C9) (item C1). These two items were among the four in the AASST that had the lowest mean scores in this study.

At the beginning of the researcher's interest in the topic, he expected and assumed that the knowledge of special education teachers about autism spectrum disorder would be weak or little, and expected that their attitudes would be negative about including students with autism spectrum disorder in regular schools.

In the past two decades, many students with autism have joined traditional school environments. However, depending on their needs and the severity of the problems, students with ASD usually require specialized education or specific, rigorous adjustments and accommodations [29].

The above finding highlighted that the special education teachers in this study were largely holding a needs-based perspective in educating students with ASD. This finding served as evidence to support [30] view on the dominance of a needs-based perspective in educating students with ASD in the world, where specialized teaching of students with ASD within a separately supported system is emphasized. At the same time special education teachers were found to have a strong perception that it was their responsibility to teach students with special needs and they would only recommend inclusive education when the students are ready [31]. These teachers' perspectives are noteworthy as these perspectives could potentially negatively impact the teachers' attitudes towards the standard model of inclusive education as currently.

ASD knowledge is consistent with past research findings, which indicated that teachers with increased knowledge about ASD would feel more competent to embrace inclusive education for students with ASD (ASD knowledge is consistent with past research findings, which indicated that teachers with increased knowledge about ASD would feel more competent to embrace inclusive education for students with ASD ([32] [33])).

The research also showed, indirectly, by analyzing the participants' answers by the questionnaire, that the special education teachers who are more familiar with the characteristics of students with autism spectrum disorder had more positive attitudes about including students in regular schools than the less knowledgeable special education teachers. This gives us evidence that knowledge contributes greatly to building our attitudes

5. Conclusions

To summarize, the results of this study are expected to expand the current perspective of teachers' attitudes toward the inclusive education of students with autism. A critical finding of this study is that scientific knowledge about autism spectrum disorder strongly determines special education teachers' attitudes toward the inclusive education of students with autism. Hence, research in the future attitudes of inclusive education is called

to seriously consider the importance of teaching, training, and preparing special education teachers in a theoretical and practical way to deal with students with autism spectrum disorder.

Acknowledgment

Author thanks Dr. Rozniza. Zaharudin for unconditional support throughout this study.

Conflict of Interest

The author witness that there is no conflict of interest with any party negatively or positively. This article is not funded by any organization that might cause conflict.

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