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## RESEARCH ARTICLE

# SCHOOL TEACHERS' ATTITUDES TOWARD INCLUSION OF STUDENTS WITH AUTISM IN SAUDI ARABIA

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### ABSTRACT

The purpose of this study was to find out school Teachers' attitudes toward inclusion of students with Autism. In addition, this study attempted to find out if there any significant differences in school Teachers' attitudes with respect to Teachers' (gender, position, education level, teaching experience, and contact with students with Autism) variables. 391 general and special education teachers from various inclusive schools within the Jeddah in Saudi Arabia completed study instrument (*Attitudes toward Inclusion of Student with Autism Scale*) to determine their attitudes toward inclusion of students with Autism. An analysis of the collected data, using descriptive statistics and analysis of variance, indicated that the "Overall" school Teachers' attitudes toward inclusion of students with Autism were slightly positive. The results also indicated significant differences in the Teachers' attitudes depending on Teachers' (position, education level, teaching experience, and contact with students with Autism), favoring special education teachers, more advanced level of education, less teaching experience, and those with previous contact with students with Autism.

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## INTRODUCTION

Over the past several years, inclusion education programs for students with disabilities have become increasingly prevalent, but they remain controversial concepts in education because they relate to educational and social values and to our sense of individual worth. With the implementation of the new regulations accompanying the Individuals with Disabilities Education Act (IDEA), a continuum of educational placements must be available for students with disabilities, ranging from a full-time general education classroom to a special day school or residential facility (Vaughn, Bos & Schumm, 2000). The law has placed more emphasis on having students with disabilities receive the majority of their instruction in "regular" classes with the use of supplementary aids and services. According to IDEA, the general education classroom is considered the Least Restrictive Environment (LRE) because it is the classroom where students with a disability would be educated if they did not have a disability. In order to discuss the concept of inclusion, it is necessary to have a common vocabulary. The term *inclusion* is often used but poorly understood. Inclusion expresses commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. Unlike mainstreaming, inclusion involves bringing the support services to the child (rather than moving the child to the services) and requires only that the child will benefit from being in the class (rather than having to keep up with the other students). Inclusion provides support services to all children in the classroom and bases expectations on individual goals. Students with special needs are not considered "visitors," but are an integral part of the school community (Cooke Center for Learning Development, 2004). According to Ferguson (1994), inclusion is a process of meshing general and special education reform initiatives and strategies in order to achieve a unified system of public education that

incorporates all children and youth as active, fully participating members of the school community that views diversity as the norm and that maintains a high-quality education for each student by assuring meaningful curriculum, effective teaching, and necessary supports. Teachers hold divergent views regarding the efficacy of inclusive practices for children with disabilities in the general education classroom. Many educators have reservations about inclusion or supporting the widespread placement of students with special needs in general education classrooms (Bradshaw, 2003). Research has shown that many general education teachers have not reacted favorably to the inclusion of students with disabilities in a general education classroom (Bender, Vail, & Scott, 1995). Attitudes on inclusion historically have varied and reflect a number of underlying factors (Kavale & Forness, 2000). The reasons for Teachers' views and attitudes vary from lack of teacher training in special education to Teachers' inability or unwillingness to adapt their teaching to meet the needs of individual students. One of the main factors influencing successful implementation of any inclusion policy is the positive attitude of some teachers (Shade & Stewart, 2001).

Successfully meeting the needs of children with disabilities in inclusive classrooms depends on the attitudes of those working most closely with the students (Burke & Sutherland, 2004). According to Siegel and Jausovec (1994), if the needs of children with disabilities are to be met successfully in inclusive classrooms, teachers need to be adequately prepared. The authors stated that by increasing Teachers' knowledge and skills on how to work with children with disabilities before they actually start to work with them should reduce Teachers' fear of working with children with disabilities. The importance of understanding the general and special educators' attitudes and beliefs about inclusive education is underscored by findings that indicate that the general educators' willingness to include students with disabilities in their classes is critical to successful implementation (Avisar, 2000). Studies of teacher attitudes appear contradictory and inconclusive. Some research has characterized general education

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teachers as being resistant to inclusion (Semmel, Abernathy, Butera, & Lesar, 1991). On the other hand, Villa, Thousand, Meyers, and Nevin, (1996) have shown general education teachers to support inclusion. Attitude research regarding inclusion has provided varied results. Some studies suggest attitudes toward inclusion were strongly influenced by the nature of disabilities (Avramidis, Bayliss & Burden, 2000). These authors indicated that teachers were positive about including only those children whose characteristics were not likely to require extra instructional or management skills on the part of the teacher. Most recently, Hastings and Oakford (2003) reported that general education teacher candidates were more favorable toward inclusion for children with intellectual disabilities than for children with emotional and behavioral problems. The exposure to special education concepts through special education credits and in-service training provides a more positive attitude toward inclusion (Praisner, 2003). This exposure enables a general education teacher to understand special education a little easier by knowing what special education and inclusion involves. The literature suggests that it is imperative that schools must provide professional development and training in order to enable general education personnel to maximize the academic, behavioral, and socioemotional adjustment of students with disabilities who are placed in the general setting for all or some of the school day (Grolnick & Ryan, 1990).

Avramidis *et al.* (2000) surveyed attitudes of mainstream teachers toward the inclusion of children with special needs in the ordinary school. The survey sample comprised 81 primary and secondary mainstream teachers from 14 primary and 9 secondary schools in urban, suburban, and rural areas. The analysis revealed that teachers who have been implementing inclusive programs, and therefore have active experience of inclusion, possess more positive attitudes. Moreover, the data showed the importance of professional development in the formation of positive attitudes toward inclusion. In particular, teachers with university-based professional development appeared both to hold more positive attitudes and to be more confident in meeting the IEP requirements of students with disabilities. Leyser and Tappendorf (2001) suggested that female teachers are more supportive of inclusion than male teachers, while Berryman (1989) found no gender differences. Not surprisingly, others have reported that special education teachers held more positive and supportive views of inclusive practices compared to general educators. According to Avissar (2000), there are significant correlations found between years of teaching experience, level of education, and in-service training. Citing more advantages of inclusion, teachers with a higher level of education, with more years of teaching experience, and with more in-service courses taken had more positive views and noted more advantages to inclusion. The researcher also noted that teachers who have no previous experience in inclusion speak less of the advantages of inclusion.

Students with autism are increasingly included within the regular education classroom in the public school setting. This is considered a positive change for students with autism; however, numerous problems still exist as these students transition into the regular education environment. The severity level of the student's autism has been found to influence placement decisions (Eaves & Ho, 1997). Once placed, teacher attitude toward inclusion of students with disabilities can influence their success within the regular education setting (Elliot, 2008). Personal teacher characteristics such as teaching experience, acquaintance with a person with a disability, income level, level of education, gender, and age have been associated with teacher attitude toward students with disabilities (Alghazo, Dodeen & Algariyouti, 2003; Brackenreed & Barnett, 2006). Previous studies have revealed varied results when assessing teacher attitude toward inclusion of students with autism into the general classroom. Al-Shammari (2006) examined the attitudes of teachers toward students with autism in Kuwait. This study revealed a need for extensive improvement within the Kuwait Autism School for students who have autism; however, teacher attitude was noted to be overall positive toward the idea of inclusion. Similarly, Kasa-

Hendrickson and Kluth (2005) revealed positive attitudes of US teachers toward inclusion of students with autism within their classrooms. Understanding teacher characteristics or other factors related to attitude toward inclusion of students with autism is important in efforts to reduce negative attitudes toward inclusion in general. Knowing which teachers work best in an inclusive setting can allow school administrators to make educated placement decisions. Parasuram (2006) noted that teachers in India who were older, had a higher level of education, and had a higher income level were likely to have a more positive attitude toward inclusion of students with disabilities into their classrooms. A significant positive interaction was also noted if the teacher was personally acquainted with a person with a disability. Alghazo *et al.* (2003) found that educational background influenced pre-service teacher attitude toward inclusion of students with disabilities. Teachers from the college of humanities and education were found to have a more positive attitude toward inclusion of students with disabilities than teachers from the college of science. Gender was also noted to be a characteristic of importance as male teachers were noted to have a more confident attitude toward inclusion of students with disabilities (Brackenreed & Barnett, 2006). Other factors have also been noted when assessing teacher attitude toward inclusion of students with autism. Park and Chitiyo (2011) found that the school level taught (elementary, middle, or high) influenced attitude toward inclusion of students with autism. These researchers revealed that workshop experience that focused on autism positively influenced teacher attitude if the teacher attended at least two workshops.

Limited research has been completed within schools in the Arab society related to assessment of teacher attitude toward the inclusion of students with autism. Of the scant studies conducted around the world, results are conflicting. Some studies clearly identify positive attitudes of teachers toward students with autism who are included into the regular education classroom (Al-Shammari, 2006; Kasa-Hendrickson & Kluth, 2005; Park & Chitiyo, 2011) while others report mixed or negative attitudes toward such inclusion (Finke *et al.*, 2009; Robertson, Chamberlain & Kasari, 2003). Correlations among teacher characteristics or other factors and attitude toward inclusion, both negative and positive, have been highlighted through several studies. If confirmed, this can provide excellent opportunities for public school districts to designate appropriate teachers for inclusive practices within the public school setting (Alghazo *et al.*, 2003; Brackenreed & Barnett, 2006; Parasuram, 2006) or provide supportive resources as they are identified through continued research. Using the Autism Attitude Scale for Teachers (AASST) developed by Olley, DeVellis, DeVellis, Wall, and Long (1981), and a researcher developed questionnaire, Kosmerl (2011) investigated beliefs of general and special education teachers about the inclusion of elementary students with autism. Results indicated that both regular and special educators reported receptive beliefs about the inclusion of students with autism. It was noted that special education teachers were more receptive to the inclusion of students with autism in than regular education teacher.

In a similar study, Park and Chitiyo (2011) examined teacher attitudes towards children with autism, and compare regular and special education Teachers' attitudes towards children with autism. Participants comprised 127 teachers (115 male, 12 female), with the majority (83%) being elementary education teachers. This correlational study also used the (AASST) to assess teacher attitude toward children with autism. Results noted that teachers had overall positive attitudes towards children with autism with higher scores related to the inclusion of such students within public schools. Demographic variables were noted to correlate with attitude. Females had more positive attitudes than males and older teachers (above age 56) were significantly less positive than their younger counterparts (20-35 years and 46-55 years). No relationship was noted with teaching experience, role (regular versus special education teacher), or type of exposure to children with disabilities. Workshop attendance was noted to be a significant factor if the teacher had attended

multiple workshops when compared to teachers who had attended only one or none. Those teachers who attended multiple workshops were noted to have significantly more positive attitudes toward students who have autism. Robertson *et al.* (2003) examined the relationship between general education teachers and second and third grade students with autism. Their findings suggest a correlation between the quality of the student-teacher relationship and the quality of inclusion (i.e., the classroom/learning experience of the autistic child).

### Statement of the Problem

A problem in schools today is the placement of students with autism in regular education classrooms and the lack of support of regular educators toward inclusion for students with disabilities (Simpson *et al.*, 2003). Many regular educators do not believe or embrace the idea of inclusion for students with moderate to severe disabilities or behavior disorders such as students with autism as they do for other disabilities. If teachers possess negative attitude toward inclusion for students with autism, this would negatively impact the education provided to these students and limit their educational performance (Love & Kruger, 2005). Designing an educational program that meets the needs of students with autism is a challenge for special education teachers, regular education teachers, and administrators. Classroom teachers are the key decision-makers in adapting instruction to the needs of students in inclusive classrooms; therefore, it is imperative to investigate their attitudes toward inclusion. As a result of the rising placement of students with disabilities in the regular education classroom and the significant role of the regular education teacher in the education of students with autism, it is necessary to investigate attitudes to surmount any barriers to successful inclusive practices.

### Purpose of the Study

The purpose of the study was to find out attitudes of school teachers toward inclusion of students with Autism, Educators' attitudes regarding students with Autism could greatly affect the education provided to these students and limit their educational performance. In addition, this study attempted to find out if there any significant differences in school Teachers' attitudes toward inclusion of students with Autism depending on the variables; teacher gender (female or male), teacher position (special or general education), teacher education level (bachelor's degree and below or master's degree and above), teaching experience (less than 5 years, 5–10 years, more than 10 years), and contact with students with Autism variables. Based on the reviewed literature, there are several research questions regarding school Teachers' attitudes toward students with Autism. Specifically, this study aimed to answer the following questions:

- What are the attitudes of special and regular school teachers toward inclusion for students with autism?
- Do Teachers' attitudes regarding inclusion for students with Autism differs upon their gender, position, education level, teaching experience, and contact with students with Autism variables?

## METHODS

### Research Design

A quantitative research methodology was utilized within this research study to determine special and general education teachers attitudes regarding inclusion of students with Autism in inclusive school sittings.

### Population of Sample

Special and regular education teachers working in inclusive schools sitting in Jeddah district which considered as one of the biggest cities in Saudi Arabia were invited to participate in this research study. Participating teachers were asked to complete The *Attitudes toward*

*Inclusion of Student with Autism Scale* (ATISAS) to determine their attitudes regarding inclusion of students with Autism in inclusive school sittings. The researcher contacted the appropriate school administrators in Jeddah to obtain permission to conduct this study. Initially, the scale was administered to 410 general and special education teachers; 402 of the scales were completed and returned, 11 of which were excluded for providing incomplete information. Thus, the final sample consisted of 391 general and special education teachers from various segregated and inclusive schools within the Jeddah in Saudi Arabia. The teachers were randomly selected from the study population. Table (1) provides the sample distribution according to the variables of the study: gender, position, education level, teaching experience, and contact with students with Autism.

**Table 1. Distribution of the Study Sample According to the Variables of the Study**

Variable		Number	Total
position	Special education	179	391
	General education	212	
Gender	Female	193	391
	Male	198	
Education Level	Bachelor or less	329	391
	Higher diploma	41	
	Master's	21	
Teaching Experience	Less than 5 years	130	391
	5–10 years	148	
	More than 10 years	113	
contact with students with Autism	Yes	207	391
	no	184	

### Measures

The *Attitudes toward Inclusion of Student with Autism Scale* (ATISAS) was developed for the present study and contains two sections. The first section is the key demographic variables (gender, position, education level, teaching experience) and a question about previous contact or experiences with individuals with Autism. The second section, The *Attitudes toward Inclusion of Student with Autism Scale* (ATISAS), is a Likert Scale that contains 24 items answered by five multiple-choice response; strongly agree, agree, not sure, disagree, strongly disagree. The scale mainly assess and measure attitudes of general and special school teachers toward students with Autism. Attitudes items were adapted from Autism Attitude Scale for Teachers (AASST) developed by (Olley *et al.*, 1981), and a questionnaire developed by (Kosmerl, 2011). The Scale in its final form consisted of 24 items, in which 11 were phased positively and 13 items (1, 2, 5, 7, 8, 9, 10, 14, 15, 18, 19, 22 and 23) were phased negatively in respect to Teachers' attitudes toward inclusion of student with Autism. For the items phased negatively, items were reverse coded because a response of "strongly disagree" was considered the more positive response. A response of 1 was converted to 5; 2 converted to 4; 3 kept 3; 4 converted to 2 and 5 converted to 1. Items were scored according to a 5-point scale (1= disagree strongly, 2= disagree moderately, 3= not sure, 4= agree moderately, 5= agree strongly). Total scores range from 0 to 120, with higher scores suggesting more positive attitudes toward inclusion of student with Autism. The face validity of the current study scale was verified by a group of professors (eight professors) trained in the field of special education that rated the clarity and appropriateness of the scale statements. Based on the group's observations and suggestions, necessary adjustments were made, and some phrases were reworded. After implementing the professors' suggestions, their percentage of agreement reached 89%. On the other hand, the reliability for the internal consistency of the study instrument was measured by Cronbach Alpha with a value reached (0,90).

### Data Analysis Procedure

To answer the research questions, the data were analyzed using descriptive statistics for categorical data (i.e., means, standard

deviations). Data were numerically coded and transferred to the statistical package for social science (SPSS) pack 20. Teachers attitudes were measured by extracting their overall mean score of Teachers' responses on the (ATISAS). The Test value = 70 (mean=2.5) is considered as a hypothetical separation limit between the positive and negative attitudes as defined by the researcher. If the means were above the 2.5, it is considered positive attitudes. Whereas the means below the mean 2.5 is considered negative attitudes.

## RESULTS

The first research question pertaining to this study aimed to find out attitudes of school teachers toward students with Autism. Teachers attitudes was measured by The *Attitudes toward Inclusion of Student with Autism Scale* (ATISAS). Table 2 shows the mean and standard deviation for each item and the "Overall" attitudes for all study sample on the (ATISAS). Here we notice that all mean scores on the study tool ranged between (1.49 – 3.87). Items (1, 23, and 3) in order, had the lowest mean scores, whereas items (21, 12, and 6) in order had the highest mean score. Moreover, the "Overall" mean score for school Teachers' attitudes toward inclusion of students with Autism was 2.98 with a standard deviation 0.641. We noticed that it is higher than the hypothetical limit between positive and negative attitudes toward inclusion of students with Autism (2.5), suggesting that the attitudes of school Teachers' toward inclusion of students with Autism were slightly positive. A deeper examination of the Teachers' responses according to their choices for each item of the study scale as shown in Table 3, indicated that the highest numbers and percentages of the Teachers' responses for the alternative "strongly agree" were for the items (6, 21, and 12) in order. And the highest numbers and percentages of the Teachers' responses for the alternative "agree" were for the items (12, 20, and 21) in order.

And the highest numbers and percentages of the Teachers' responses for the alternative "not sure" were for the items (22, 14, and 19) in order. And the highest numbers and percentages of the Teachers' responses for the alternative "disagree" were for the items (23, 3, and 7) in order. And finally, the highest numbers and percentages of the Teachers' responses for the alternative "strongly disagree" were for the items (1, 23, and 17) in order. The second aim of this research was to investigate the potential differences in school Teachers' attitudes toward inclusion of students with Autism with respect to Teachers' gender, position, education level, teaching experience, and contact with students with Autism. To address this aim, two processes of analysis were implemented; initially, means, standard deviation, and Results of T-test for the teachers responses depending on (Gender, Position, and Contact with student with Autism) variables were extracted as shown in Table 4. As shown in Table 4, the mean scores differ based on the gender (male and female) of the respondent. The male group (n=198) had a mean of  $X = 3.03$  and a standard deviation of  $\sigma = 0.659$ ; the female group (n=193) had a mean of  $X = 2.92$  and a standard deviation of  $\sigma = 0.619$ . A T-test between the means yielded  $t(389) = 1.729$  at  $p = 0.085$ , for  $p \geq 0.05$ . Thus, no significant differences were found in the means among the gender groups. The findings thus indicated that responses were independent of gender variable. For the second variable, differences in the mean scores were found based on the teacher position (special education teacher or general education teacher), as shown in Table 4. The special education teachers group (n=179) had a mean score of  $X = 3.49$  and a standard deviation of  $\sigma = 0.424$ ; whereas the general education group (212) had a mean score of  $X = 2.54$  and a standard deviation of  $\sigma = 0.444$ . A T-test between the means yielded  $t(398) = 21.440$  at  $p = 0.000$ , for  $p \geq 0.05$ .

**Table 2. Mean, Std., Number, and percentage of correct answers for each item of the questionnaire for all Study Sample**

Item N.	item	Mean	Std.
1	I believe that special education teachers are the only ones who should have to deal with children with Autism	1.94	1.104
2	I think that teachers with long experience are the only ones who are able to deal with autistic children	2.55	1.245
3	I believe that I have the ability to teach children with Autism in the regular class	2.30	1.157
4	I believe Students with autism have the right to receive all education within the regular schools	3.35	1.220
5	I believe frustrated when teaching students with autism	2.58	1.287
6	I think that training teachers in regular schools on how to deal with children with Autism will contribute to the success of their inclusion	3.83	1.182
7	I believe that the presence of students with Autism in regular classrooms will negatively affect the learning environment.	2.54	1.124
8	I prefer to teach in class room without students with autism	2.57	1.293
9	Students with autism should be separated from ordinary students into special education school	2.74	1.262
10	I believe that students with autism will not benefit from the activities in the public schools because of their limited abilities	3.05	1.188
11	I believe that the integration of students with Autism in regular schools allows ordinary students to feel how much students with Autism suffer	3.62	1.105
12	I believe that the integration of students with Autism in regular schools leads to improve their social interaction skills.	3.87	1.061
13	I believe that the presence of students with Autism in regular school will improve their academic skills	3.42	1.129
14	Students with autism should not be taught in regular classes with non-disabled students because they require too much of the Teachers' time.	2.55	1.077
15	Students with high functioning Autism is the only category that must be included	2.99	1.195
16	Most or all regular classes can be modified to meet the needs of students with autism	3.55	1.151
17	Students with autism should be integrated in the regular class for all the time	2.51	1.353
18	I believe that the presence of autistic students in regular school provides ordinary students with an unacceptable behaviors.	2.81	1.227
19	I believe that inclusion of students with autism in regular school is not effective because of their lack of social and academic skills	2.65	1.117
20	I believe that responsibility of teaching students with autism is shared between regular classroom and special education teacher	3.74	1.087
21	I think it is necessary to provide assistive special education services for students with autism within the regular school environment for the success of the integration programs.	3.87	1.078
22	I believe that the level of academic achievement for ordinary students would be adversely affected by the presence of students with Autism with them	2.91	1.170
23	I believe that regular education teachers would feel uncomfortable in implementing individualized educational plane if students with Autism are placed in general education classroom.	1.98	1.049
24	I believe the students with autism will lose the stigma of disability if they were placed in regular schools	3.49	1.159
	Overall	2.98	.641

**Table 3. Number and Percentage of sample responses for each scale alternatives**

Item N	S. disagree		disagree		nut sure		agree		S. agree	
	N	%	N	%	N	%	N	%	N	%
1	180	46.0	113	28.9	50	12.8	37	9.5	11	2.8
2	97	24.8	111	28.4	78	19.9	79	20.2	26	6.6
3	116	29.7	123	31.5	92	23.5	38	9.7	22	5.6
4	31	7.9	71	18.2	103	26.3	104	26.6	82	21.0
5	98	25.1	105	26.9	95	24.3	51	13.0	42	10.7
6	18	4.6	45	11.5	68	17.4	114	29.2	146	37.3
7	81	20.7	117	29.9	110	28.1	66	16.9	17	4.3
8	113	28.9	74	18.9	105	26.9	66	16.9	33	8.4
9	75	19.2	101	25.8	113	28.9	54	13.8	48	12.3
10	33	8.4	111	28.4	107	27.4	84	21.5	56	14.3
11	21	5.4	42	10.7	90	23.0	151	38.6	87	22.3
12	13	3.3	36	9.2	63	16.1	157	40.2	122	31.2
13	22	5.6	63	16.1	106	27.1	128	32.7	72	18.4
14	72	18.4	121	30.9	124	31.7	58	14.8	16	4.1
15	50	12.8	87	22.3	113	28.9	98	25.1	43	11.0
16	25	6.4	46	11.8	99	25.3	132	33.8	89	22.8
17	126	32.2	84	21.5	73	18.7	71	18.2	37	9.5
18	66	16.9	103	26.3	101	25.8	83	21.2	38	9.7
19	67	17.1	115	29.4	115	29.4	75	19.2	19	4.9
20	15	3.8	40	10.2	83	21.2	145	37.1	108	27.6
21	11	2.8	40	10.2	68	17.4	140	35.8	132	33.8
22	56	14.3	82	21.0	133	34.0	83	21.2	37	9.5
23	161	41.2	123	31.5	70	17.9	27	6.9	10	2.6
24	24	6.1	55	14.1	103	26.3	123	31.5	86	22.0

**Table 4. Means, Std., and Results of T-test for the teachers responses depending on (Gender, Position, and Contact with student withAutism) variables**

Variables	N	Mean	Std.	t	df	Sig.	
Gender	Male	198	3.03	.659	1.729	389	.085
	Female	193	2.92	.619			
position	Special education	179	3.49	.424	21.440	389	.000
	General education	212	2.54	.444			
contact with students with Autism	Yes	207	3.38	.497	17.756	389	.000
	No	184	2.52	.455			

**Table 5. Means, Std., and Results of analysis of variance (ANOVA) for the teachers responses depending on (Education level and Experience) variables**

	N	Mean	Std.		Sum of squares	df	Mean squares	F	Sig.	
Education	Bachelor	329	2.95	.626	Between G.	3232.539	2	1616.3	26.957	.000
	Diploma	41	3.03	.702	Within G.	23263.80	388	59.958		
	Master	21	3.34	.673	Total	26496.34	390			
Experience	< 5	130	3.13	.659	Between G.	1145.561	2	572.78	8.767	.000
	5-10	148	2.90	.663	Within G.	25350.78	388	65.337		
	> 10	113	2.89	.558	Total	26496.34	390			

These results indicate a statistically significant difference between the means of the special education teachers and the general education teachers groups, and that the special education teachers group had more positive attitudes toward inclusion of students with Autism than general education teachers group. Regarding the third variable, as shown in Table 4, differences in the mean scores were found based on the contact with students with Autism. Teachers who had a previous contact with students with Autism (n=207) had a mean score of  $X = 3.38$  and a standard deviation of  $\sigma = 0.497$ ; whereas Teachers who had no previous contact with students with Autism (n=184) had a mean score of  $X = 2.52$  and a standard deviation of  $\sigma = 0.455$ . A T-test between the means yielded  $t(398) = 17.756$  at  $p = 0.000$ , for  $p \geq 0.05$ . These results indicate a statistically significant difference between the means of the teachers who had a previous contact with students with Autism and the teachers who had no previous contact with students with Autism. And that the teachers who had a previous contact with students with Autism group had more positive attitudes toward inclusion of students with Autism than those who had no previous contact with students with Autism. For the purpose of investigating the potential differences in school Teachers' attitudes toward inclusion of students with Autism with respect to Teachers' education level and teaching experience, another processes

of analysis were implemented. Regarding the differences between school Teachers' attitudes toward inclusion of students with Autism with respect to Teachers' education level, as shown in Table 5, differences in the mean scores were found. Teachers who had a Bachelor degree (n=329) had a mean score of  $X = 2.95$  and a standard deviation of  $\sigma = 0.626$ ; and teachers who had a Higher Diploma degree (n=41) had a mean score of  $X = 3.03$  and a standard deviation of  $\sigma = 0.702$ ; and teachers who had Master degree (n=21) had a mean score of  $X = 3.34$  and a standard deviation of  $\sigma = 0.673$ . An ANOVA test between the means yielded ( $F=26.957$ ) at  $p = 0.000$ , for  $p < 0.05$ . These results indicate a statistically significant difference between the means of the different education level groups. In addition, A Scheffé post hoc test was conducted for the comparisons between different education level groups as shown in Table 6. Results indicated teachers with Master degree had more positive attitudes toward inclusion of students with Autism in comparison with teachers with Bachelor degree (mean difference = 0.39 at  $p = 0.025$ ). Regarding the differences between school Teachers' attitudes toward inclusion of students with Autism with respect to Teachers' experience variable, as shown in Table 5, differences in the mean scores were found. Teachers with (< 5) years of experience (n=130) had a mean score of  $X = 3.13$  and a standard deviation of  $\sigma = 0.659$ ; and teachers with (5-

10) years of experience (n=148) had a mean score of  $X = 2.90$  and a standard deviation of  $\sigma = 0.663$ ; and teachers with (> 10) years of experience (n=113) had a mean score of  $X = 2.89$  and a standard deviation of  $\sigma = 0.558$ . An ANOVA test between the means yielded ( $F=8.767$ ) at  $p = 0.000$ , for  $p < 0.05$ . These results indicate a statistically significant difference between the means of the different Teachers' experience level groups. In addition, A Scheffé post hoc test was conducted for the comparisons between different Teachers' experience level groups as shown in Table 6. Results indicated that teachers with (< 5) years of experience had more positive attitudes toward inclusion of students with Autism in comparison with teachers with (> 10) years of experience (mean difference = 0.23 at  $p = 0.010$ ), and teachers with (5-10) years of experience had more positive attitudes toward inclusion of students with Autism in comparison with (> 10) years of experience (mean difference = 0.24 at  $p = 0.027$ ).

**Table 6. Post Hoc Analysis (Scheffé test) for the teachers responses depending on (Education level, and Experience) variables**

Variables		Mean Difference	Std. Error	Sig
Education Level	High Diploma	-.09	.105	.706
	Master	-.39(*)	.143	.025
High Diploma	Bachelor	.09	.105	.706
	Master	-.30	.171	.207
Master	Bachelor	.39(*)	.143	.025
	High Diploma	.30	.171	.207
Experience	Less than 5 years			
	5-10 years	.23(*)	.076	.010
5-10 years	More than 10 years	.24(*)	.081	.013
	Less than 5 years	-.23(*)	.076	.010
More than 10 years	More than 10 years	.01	.079	.995
	Less than 5 years	-.24(*)	.081	.013
	5-10 years	-.01	.079	.995

## DISCUSSION

The purpose of the study was to find out attitudes of special and regular school teachers toward inclusion for students with autism. In addition, this study attempted to investigate the potential differences in school Teachers' attitudes toward inclusion of students with Autism with respect to Teachers' gender, position, education level, teaching experience, and contact with students with Autism. The first research question indicated that the attitudes of school Teachers' toward inclusion of students with Autism were slightly positive, as the mean score of the "Overall" school Teachers' attitudes toward inclusion of students with Autism was (2.98), which is slightly above the hypothetical separation limit (mean = 2.5) between the positive and negative attitudes as defined by the researcher. Regarding this result, previous studies have revealed varied results when assessing teacher attitude toward inclusion of students with autism into the general classroom. Numbers of studies found that general and special education teachers support inclusion of students with Autism (Chitiyo, 2011; Kosmerl, 2011; Al-Shammari, 2006; Kasa-Hendrickson & Kluth, 2005; Villa *et al.*, 1996). Whereas other studies found many educators have reservations about inclusion or supporting the widespread placement of students with Autism in general education classrooms (Bradshaw, 2003; Semmel *et al.*, 1991). Results of the second study objective aimed to find out if there any significant differences in Teachers' attitudes toward inclusion of students with Autism depending on the variables; teacher gender, teacher position, teacher education level, teaching experience, and contact with students with Autism variables. These results did not indicate any significant differences in Teachers' attitudes depending on Teachers' gender. This result was in agreement with (Brackenreed & Barnett, 2006; Alghazo *et al.*, 2003; Berryman, 1989) studies that found personal teacher characteristics such as gender, have been associated with teacher attitude toward students with disabilities. On the other hand, other studies carried out by (Leyser & Tappendorf, 2001; Park & Chitiyo, 2011) were contradictory to this result,

suggesting that female teachers were more supportive of inclusion than male teachers. With regard to teacher position variable, results indicated that the special education teachers had more positive attitudes toward inclusion of students with Autism than general education teachers. This may be due to the fact that special education teachers study number of courses related to the inclusion of students with special needs in regular schools, and thus these courses may have a contribution in changing their attitudes toward inclusion by concentrating on the benefits that may be achieved by students with autism, and that receiving their education in the least restrictive environment is of their right stipulated by the law. While the general education teachers have negative attitudes, and this is due to the nature of their preparation educational programs that lack of courses that acknowledge them with the characteristics of students with special needs and their rights and the laws governing them. Kosmerl (2011) noted that special education teachers were more receptive to the inclusion of students with autism in than regular education teacher. On the other hand, results of (Park and Chitiyo, 2011) study was in disagreement with this current study results by indicating no differences in attitudes toward inclusion of students with Autism depending on the role (regular versus special education teacher) variable.

Regarding the teacher experience variable, results indicated that both school teachers groups with (< 5) and (5-10) years of experience, had more positive attitudes toward inclusion of students with Autism in comparison with teachers with (> 10) years of experience. This result may be due to the fact that teachers within the first five years of experience or above that to utmost ten years of experience, may still have a passion for working with students with different abilities, such as students with autism, and this may be due to their desire to prove their ability in teaching those students, and convince their administrators that they are serious about their work and work their best to improve the capabilities of these students. Unlike people with long experience and who may have arrived at the point of exhaustion or the so-called psychological Burn out in working with this group of students which affects their attitudes towards inclusion of students with autism. Chitiyo (2011) found no relationship between teaching experience and Attitudes toward inclusion of students with Autism. He also found that older teachers (above age 56) were significantly less positive than their younger counterparts (20-35 years and 46-55 years). On the other hand, studies by (Alghazo *et al.*, 2003; Brackenreed & Barnett, 2006) found that Teachers' attitudes toward inclusion were more positive with more years of teaching experience. Moreover, (Parasuram, 2006) noted that teachers in India who were older, were likely to have a more positive attitude toward inclusion of students with disabilities into their classrooms.

Findings of Teachers' education level variable indicated that teachers with Master degree had more positive attitudes toward inclusion of students with Autism in comparison with teachers with Bachelor degree. This may be due to the fact that teachers at the postgraduate level may be involved before in a more extensive courses in the field of special education, in which topics are researched in a deeper manner. Moreover, postgraduate level designed to form educational philosophy in more holistic manner, and thus contribute in changing attitudes and ideas about a lot of concepts and topics, including the inclusion of students with special needs in regular schools. Findings from studies by (Alghazo *et al.*, 2003; Brackenreed & Barnett, 2006) found that teachers with a higher level of education had more positive attitudes toward inclusion of students with Autism. Finally, result of the current study indicated that teachers who had a previous contact with students with Autism had more positive attitudes toward inclusion of students with Autism than those who had no previous contact with students with Autism. There is no doubt that prior knowledge contribute significantly in improving Teachers' knowledge about the characteristics and learning styles of students with autism, and so have a larger capacity than others in dealing with this category. Elliot (2008) found that Personal teacher characteristics such as acquaintance with a person with a disability have been

associated with teacher attitude toward inclusion of students with disabilities.

## Conclusion

The information discussed thus far leads to the following conclusions; attitudes of school Teachers' toward inclusion of students with Autism were slightly positive. This finding supports the fact that successfully meeting the needs of children with disabilities in inclusive classrooms depends on the attitudes of those working most closely with the students, and teachers need to be adequately prepared for inclusion. Different variables such as Teachers' (position, education level, experience, and contact with students with Autism) were found to have a significant direct effect on Teachers' attitudes toward inclusion of students with Autism. Understanding teacher characteristics or other factors related to attitude toward inclusion of students with autism is important in efforts to reduce negative attitudes toward inclusion in general. Correlations among teacher characteristics or other factors and attitude toward inclusion, have been highlighted through several studies. If confirmed, this can provide excellent opportunities for public school districts to designate appropriate teachers for inclusive practices within the public school setting.

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