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**Parental Attitudes toward the Provided
Services in Regular Schools for Children
with Autism Spectrum Disorder**

By □

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Parental Attitudes toward the Provided Services in Regular Schools for Children with Autism Spectrum Disorder

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Abstract

This study dealt with the attitudes of parents of children on the autism spectrum towards primary school education. Parents of autistic children were found to have elevated stress rates relative to parents of neurotypical children. Research questions were designed to determine the parent's attitude towards primary school education and challenges faced by teachers in traditional school classrooms having children with autism spectrum disorder (ASD).

Thirty-six parents having children with ASD were given twenty questionnaire items covering three aspects of quality, barriers to supporting the learning of student on autism spectrum of teaching ASD pupils and satisfaction towards teaching pupils with ASD in regular schools. Descriptive analytical method was used to answer questionnaire and to test experimental hypotheses.

Analysis of the study showed that most participants were not sure about services' quality of regular schools, and agreed that there are difficulties hindering successful teaching of ASD pupils in regular schools. Majority participants were not sure about their satisfaction towards teaching of children with ASD pupils in regular schools. But parents do agree that school adjusts assessment methods, curriculum, provides resource room, teamwork.

The study could provide a clear grasp of parental expectations regarding academic and social consequences of participation of children with ASD with diverse severity in regular schools.

Keywords: Autism spectrum disorder, parents, teachers, regular schools, inclusion

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اتجاهات أولياء أمور الأطفال ذوي اضطراب طيف التوحد نحو الخدمات المقدمة لأبنائهم في المدارس العادية

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مستخلص الدراسة

تتناول الدراسة الحالية اتجاهات أولياء أمور الأطفال ذوي اضطراب طيف التوحد نحو تعليمهم في المدارس في المرحلة الابتدائية، حيث وُجد بأن أولياء أمور الأطفال ذوي اضطراب طيف التوحد لديهم معدلات ضغوط عالية نسبياً مقارنة بأولياء أمور لديهم أطفال مصابين باضطرابات عصبية مختلفة. وقد تم تصميم أسئلة الدراسة لتحديد اتجاهات أولياء الأمور نحو التحديات التي قد تواجه المعلمون في الفصول الدراسية بالمدارس الابتدائية التي يوجد بها أطفال من ذوي اضطراب طيف التوحد.

في هذه الدراسة تم توجيهه (٣٦) من الآباء والأمهات الذين لديهم أطفال يعانون من اضطراب طيف التوحد للإجابة على (٢٠) عبارة من عبارات الاستبيان الذي يتناول ثلاثة محاور مختلفة وهي جودة الخدمات المقدمة لهؤلاء الأطفال في المدارس العادية، والعقبات التي تحول دون دعم تعلم التلاميذ ذوي اضطراب طيف التوحد للتعليم، ومدى استحسان تعليم التلاميذ ذوي اضطراب طيف التوحد في المدارس العادية. وقد أُستخدم المنهج الوصفي التحليلي للإجابة على الاستبيان واختبار الفرضيات التجريبية.

وقد أظهرت نتائج تحليل البيانات بأن معظم المشاركين في الدراسة غير متأكدين من جودة خدمات المدارس العادية، واتفقوا على أن هناك صعوبات تعيق التدريس الناجح للتلاميذ ذوي اضطراب طيف التوحد في المدارس العادية. كما أن معظم المشاركين في الدراسة غير متأكدين من استحسان تعليم الأطفال ذوي اضطراب طيف التوحد في المدارس العادية. لكن اتفق آباء وأمهات هؤلاء الأطفال من ذوي اضطراب طيف التوحد بأنه ينبغي على المدرسة أن تعمل على تعديل أساليب تقييم التلاميذ، والمناهج الدراسية، وتوفير غرف المصادر، وتفعيل العمل الجماعي بما يتناسب مع وجود تلاميذ ذوي اضطراب طيف التوحد.

وقد وضحت الدراسة توقعات الوالدين المتعلقة بالعواقب الأكاديمية والاجتماعية لمشاركة الأطفال ذوي اضطراب طيف التوحد على اختلاف شدة اصابتهم به في المدارس العادية.
الكلمات المفتاحية: اضطراب طيف التوحد، أولياء الأمور، المعلمين، المدارس العادية، الدمج.

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Introduction:

Autism spectrum disorder (ASD) is a neurological and developmental condition in which the patient faces continuous difficulty in maintaining communication and interaction with people along with limited and repetitive behavior. This pattern is observed from the young age. Most studies report a drastically high male to female ratio of autism in the general population like 2:1, 4:1 and even 10:1 (Milner et al., 2019). Earlier, disabled students had few chances to learn in public schools. This could have been due to several reasons including- discrimination, stereotyping, and stigmatization of such students (Simón et al., 2022). In the 1970s, only 20 percent of students with disabilities received education at public schools. In the middle of the 1970s, educational programs changed drastically, due to coordination between general and special education teachers (Smith et al., 2014). Smith et al., further claimed that there is a need to educate students of the special education category in the least constrictive setting as much as possible.

Increased inclusion of education institutions may engage teachers in a difficult process of challenging their own discriminatory practices and attitudes. Therefore, continuous research on the provision of disabled children, like ASD, is essential for enhanced service delivery in mainstream education. Such inclusions improve teaching practices thus benefiting all the students. This also has direct positive influence on the well-being of the teachers as it involves greater coordination between different professionals (Drossel et al., 2019). Due to the presence of children with ASD in the regular classrooms, teachers are obliged to involve these children successfully and efficiently in many cases with minimal or absence of guidance and preparation. As a result, most schools

fail to fulfill the needs of these children. It has also been observed that the extent to which a school collaborates is inversely proportional to the students' educational level. More supportive infrastructure and facilities are available in lower education grades than in the higher ones (Simón et al., 2022). Teachers, especially their interactions with the students, play a major role in the implementation of inclusive education and its eventual success. Enthusiastic teachers positively affect students' well-being. They also enhance their learning capacity (Van der Steen et al., 2019).

Since ASD is a lifetime condition, parents face a lot of difficulties while raising the affected children right from childhood. This can lead to immense stress to the parents when they feel that their capability to provide parental care is less than their expectations even in the presence of various methods and aids at their disposal (Miranda et al., 2019). This issue can be resolved by providing one-on-one mental health support, stress alleviation strategies, parent training programs etc. These techniques not only help parents in learning the right parental tactic but also boost their confidence and improve their mental health (Eshraghi et al., 2022).

The author Eshraghi et al., also made a significant point that such coping methodologies should not pose an additional strain on the parents or the caregivers of children dealing with ASD. The focus of this kind of support should be to make parents feel empowered and more accepting of the suggestions made by therapists for the welfare of affected children. Consequently, better mental health of parents would inevitably be beneficial to their children. It was also suggested that parents dealing with such issues should be made accustomed to stress management and training techniques for the development of affirmative behavior in their offspring who can eventually imbibe the given therapy robustly.

Often teachers at school are not completely acquainted with the knowledge and methods to deal with students with autism. Lack of facilities in school for such children makes education a challenging task for both teachers and pupils. For the cultivation of an inclusive environment, it is crucial to impart necessary training and skills to the educators (Graham, 2021). Apart from the dearth of measures, it was also observed that the center of most teachers was academic outcome and very few held non-academic achievements such as social integration important (Hummerstone & Parson, 2020). It should also be kept in mind that students with autism have heightened emotional and sensory needs therefore many of them have reported the environment of the school to be stressful due to several reasons like disruptive behavior of their class fellows, noisy classrooms etc. (Warren et al., 2020). To augment the process of learning in schools for students with autism, it is paramount to have teachers who are sensitive enough to understand their distinct communication needs (Hummerstone & Parson, 2020). In order to generate positive experience of school in the minds of autistic students, it is extremely important to train staff in evidence-based methods along with inculcation of professional development and environment modifications. Focus of the teachers should be shifted from evidence-based interventions that are already given in their training to support students with ASD to feedback based amendments for their optimum growth and support (Brock et al., 2020). Although there is ample evidence that suggests that evidence-based approaches have reaped enormous positive results on the welfare of autistic children in the classrooms, it should also be given due significance that such special

children need routine framework. So, a concise classroom schedule with well-tailored lesson plans could be extremely helpful for them. Similarly, teachers' approach should be flexible and adaptable, keeping in mind the needs of students' on the particular day as they may experience extra strain on some days. In such a scenario having a repertoire of alternate strategies could be advantageous in classrooms when dealing with autistic students (Warren et al., 2020).

Purpose of the Study:

The present study aims to measure teaching of ASD pupils alongside their peers in regular schools. Teaching of ASD pupils in regular schools has been of interest to different education authorities in different ways and has been implemented widely in some countries and less so in others because of economic situation and educational policy of the country and also due to view of society towards the ASD pupils. This makes their teaching more successful in some countries than others. The present study is significant because it may develop and improve the teaching process of ASD pupils in regular schools of (Blinded for reviewer). The results of this study may help in adoption of new methods which may prove to be suitable for autistic pupils of special needs and non-special needs and make the regular schools suitable place for teaching for these children together in the same school. The study aimed to investigate the parents' opinions towards the services' quality and difficulties which hinder the success of teaching ASD pupils in the regular schools and explore the parents' satisfaction towards teaching pupils with ASD in regular schools.

Methodology Questions of the Study:

The study attempted to investigate the teaching of ASD pupils in regular schools. The following research questions were investigated for analysis.

- Q1. What are parents' perspectives of the teaching quality within mainstream schools?
- Q2. What do parents think are the greatest barriers to successful teaching in mainstream schools?
- Q3. What are the levels of parent satisfaction towards the education of students with ASD within mainstream schools?

Experimental Hypotheses of the Study :

In relation to the stated research questions, following experimental hypotheses (EH1) were posed:

- EH1. There are no statistically significant differences among the responses of parents with regard to the services' quality of regular schools which teach ASD pupils.
- EH2. There are no statistically significant differences among the responses of parents with regard to the greatest difficulties which hinder successful teaching of ASD pupils in the regular schools.
- EH3. There are no statistically significant differences among the responses of parents with regard to their satisfaction of teaching ASD pupils in the regular schools.

Study Population and Questionnaire

A total of thirty-six participants with children on the autism spectrum who have been attending regular schools in the city of (Blinded for reviewer) and belonged to low-and middle-income families were recruited

for the study. The questionnaire was designed and sent to all the participants with an e-mail address, targeting parents with children aged 6-12 years attending primary school, and diagnosed with ASD. The questionnaire was delivered to the participants with a covering letter which mentioned the main theme of the study and declared that the answers would be treated in the strict confidential manner.

In order to identify and develop the questionnaire dimensions statements, the related literature was reviewed. A 20-item questionnaire was constructed in English and then translated into the native language to facilitate its use by the parents. The questionnaire consisted of two parts. The part one consisted of four items dealing with the participant's the background information, gender, age, status, and qualifications. Part two consisted of three sections, the first section (10 items) reflects the respondent's opinion towards the service's quality of the regular schools which serve the students with ASD. Second section (5 items) reflects the respondent's opinion towards the difficulties which hinder the success of teaching students with ASD in the regular schools. Third section (5 items) reflects the respondent's satisfaction towards the teaching students with ASD in regular schools.

Likert scaling is a bipolar scaling method which measures either positive or negative response to a statement. Each one of the twenty questionnaire items involved a response using a Likert five-point rating scale; Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree, covering three aspects of quality, difficulties which hinder the success of teaching ASD pupils and satisfaction towards teaching pupils with ASD in regular schools. Descriptive analytical method was used to achieve study objectives for answering its questions and to test the hypotheses.

Answer	Weight	Weighted Mean
Strongly disagree	1	1 to < 1.8
Disagree	2	1.8 to < 2.60
Not Sure	3	2.60 to < 3.40
Agree	4	3.40 to < 4.20
Strongly Agree	5	4.20 to 5

Statistical Methods

The software IBM Statistical Package for Social Science (SPSS), version 24 was used to perform the statistical analysis. Cronbach's alpha for reliability, Pearson Correlation Coefficient to test internal consistency (construct validity), frequency and percentages, means and standard deviation, Chi-square for goodness of fitness, Independent samples t-test and One-way analysis of variance (ANOVA) was used for the analysis with p-values <0.05 as significant. The T-Test and One-way ANOVA were conducted for independent sample to test the difference between participants (parents) in three dimensions according to their demographics.

The IVs were the demographics (gender, age, status, and level of education) and the DV were the total weighted mean source of each dimension (services qualities, difficulties, and satisfaction).

Results

The results of the reliability and validity of questionnaire are shown in the Supplementary data 1. **Demographic Characteristics of the Participants**

A total of (36) participants were parents of ASD children aged (6-12) years attending primary regular schools and diagnosed with ASD were recruited for the study. The results showed that almost (61.1%) of the participants were female, while 38.9% were male. About 44.4% of participants were in the age group of (41-50) years, 27.8% in (31-40) years, 13.9% in (20-30) ears and 13.9% were in the age group of (51) years and above. Furthermore, the majority (77.8%) of participants were married, while 19.4% were divorced and 2.8% were widowed. Regarding education, it was found that 47.2% of the participants had secondary school education, 33.3% had bachelor's degree, 16.7% had studied up to intermediate level or less, and only 2.8% went for higher studies (Table 1).

Results of Research Questions:

Q1. To what extent do parents' perspectives towards services' quality of regular schools which teach ASD pupils?

To answer this question, mean, standard deviation and chi-square test for goodness of fitness were calculated for the answers toward each statement in the first dimension (Services' quality). The results are shown in (Table2).

According to table 2, the total score of the dimension was 2.89 out of 5.0 which was in the range 2.60 -< 3.40. This denotes "not sure" according to Five-Level Likert Scale i.e., most of the participants were not sure about the services' quality of regular schools which teach ASD pupils. The table also shows that all chi-square values (except items 9 & 10) are statistically significant (p-values < 0.05), however, there are statistically significant differences between the expected and observed frequencies. In other words, there are significant differences between the respondents in their opinion

toward the statements of the first dimension which can be interpreted according to mean value of each. According to the mean, the statements had been ranked in descending order from the highest mean to the lowest, so, the findings were as follows:

- 1- The statement "*The school adjusts assessment methods to suit autism spectrum disorder pupils*" came in the first order with mean 3.83, chi-square 48.0** (significant) and level of response as "Agree".
- 2- The statement "*The school provides a resource room appropriately equipped with educational equipment and aids suitable for autism spectrum disorder pupils*" came in the second order with mean 3.75, chi-square 82.9** (significant) and level of response as "Agree".
- 3- The statement "*The school makes appropriate adjustments in the curriculum to suit autism spectrum disorder pupils*" came in the third order with mean 3.61, chi-square 50.4** (significant) and level of response as "Agree".

And the lowest levels of response were:

- 4- The statement "*There are many regular schools that accept autism spectrum disorder pupils in the districts where we live and in the neighboring districts*" came in the ninth order with mean 2.44, chi-square 49.8** (significant) and level of response as "Disagree".
- 5- The statement "*The school provides health care services to autism spectrum disorder pupils*" came lastly in the tenth order with lowest mean 1.50, chi-square 16.2** (significant) and level of response as "Strongly disagree".

Q2. To what extent do parents think are the greatest difficulties which hinder successful teaching of autism spectrum disorder pupils in the regular schools?

To answer this question, i.e., to study the extent of parents thought about the greatest difficulties which hinder successful teaching of ASD pupils in the regular schools, mean, standard deviation and chi-square test for goodness of fitness were calculated for the answers toward each statement in the second dimension (Difficulties). The results are shown in (Table3).

Table 3 showed that the total score of the dimension was 3.40 out of 5.0, which was in the range $-3.40 < 4.20$. This denotes "Agree" according to Five-Level Likert Scale, i.e., most of the participants agree that there are greatest difficulties which hinder successful teaching of ASD pupils in the regular schools. The table also shows that all chi-square values are statistically significant (p-values < 0.05), however, there are statistically significant differences between the expected and observed frequencies. In other words, there are significant differences between the respondents in their opinion toward the statements of the second dimension which can be interpreted according to mean value of each.

According to the mean, the statements had been ranked in descending order from the highest mean to the lowest, so, we find the following:

- 1- The statement "*The readiness of work team, normal pupils and their families to accept autism spectrum disorder pupils and interact with them*" came in the first order with the highest mean as 4.08, chi-square 17.1** (significant) and level of response as "Agree".
- 2- The statement "*Teaching methods in regular schools and its suitability for educating autism spectrum disorder pupils*" came in the second order with mean 4.06, chi-square 14.0** (significant) and level of response as "Agree".

- 3- The statement “*Preparing the school building where my son studies to receive autism spectrum disorder pupils*” came in the third order with mean 3.92, chi-square 13.1**(significant) and level of response as “Agree”.

And the lowest level of response was:

- 4- The statement “*Not being aware of the results of my son's performance evaluation in school throughout the academic year*” came lastly in the fifth order with lowest mean 2.26, chi-square 32.9** (significant) and level of response as “Disagree”.

Q3. To what extent levels of parents’ satisfaction towards teaching of autism spectrum disorder pupils in the regular schools?

To answer this question, i.e., to study parents’ satisfaction towards teaching of autism spectrum disorder pupils in the regular schools, means, standard deviation and chi-square test for goodness of fitness were calculated for the answers toward each statement in the third dimension (Parents’ satisfaction). The results are shown in (Table4).

According to table 4, the total score of the dimension was 3.30 out of 5.0 which was in the range 2.60 -< 3.40. This denotes “not sure” according to Five-Level Likert Scale, i.e., most participants were not sure about their satisfaction towards teaching of ASD pupils in the regular schools. The table also shows that all chi-square values were statistically significant (p-values < 0.05), however, there are statistically significant differences between the expected and observed frequencies. In other words, there were significant differences between the respondents in their opinion toward the statements of the third dimension which can be interpreted according to mean value of each.

According to the mean, the statements had been ranked in descending order from the highest mean to the lowest, so, we find the following:

- 1- The statement “*I took advantage of the seminars and workshops held by the school where my son studies to educate and train the families of autism spectrum disorder pupils*” came in the first order with the highest mean 4.14, chi-square 19.8** (significant) and level of response as “Agree”.
- 2- The statement “*The school regularly evaluates my son, and I am informed of the evaluation results*” came in the second order with mean 3.75, chi-square 30.9** (significant) and level of response as “Agree”.
- 3- The statement “*My son's educational skills had been improved by being in the regular school*” came in the third order with mean 2.92, chi-square 16.2** (significant) and level of response as “Not sure”.

And the lowest level of response was:

- 4- The statement “*I feel comfortable with my son being in the regular school, whether in a class for autism spectrum disorder pupils or with normal pupils*” came lastly in the fifth order with lowest mean 2.78, chi-square 22.9** (significant) and level of response as “Not sure”.

Results of Experimental Hypotheses

EH1. There are no statistically significant differences among the responses of parents with regard to the services’ quality of regular schools which teach autism spectrum disorder pupils – according to parents’ gender, age, marital status and education. To test this hypothesis, independent samples t-test and one-way analysis of variance (ANOVA)

were used for the first dimension (Services' quality). The results are shown in table 5. The p-values corresponding to gender, age, marital status and education were greater than 0.05, thus, there are no statistically significant differences. So, there is no evidence to reject the first hypotheses.

EH2. There are no statistically significant differences among the responses of parents with regard to the greatest difficulties which hinder successful teaching of autism spectrum disorder pupils in the regular schools – according to parents' gender, age, marital status and education. To test this hypothesis, independent samples t-test and one-way analysis of variance (ANOVA) were used for the second dimension (Difficulties). The results are shown in the table6. The p-values for the gender, age, marital status and education were greater than 0.05, thus, there are no statistically significant differences. Therefore, there is no evidence to reject the second hypotheses.

EH3. *There are no statistically significant differences among the responses of parents with regard to their satisfaction of teaching autism spectrum disorder pupils in the regular schools – according to parents' gender, age, marital status and education. To test this hypothesis, independent samples t-test and one-way analysis of variance (ANOVA) were used for the third dimension (Parents' satisfaction). The results were shown in the table7. It was found that the p-values for gender, marital status and education were greater than 0.05, thus there are no statistically significant differences. So, there are no statistically significant differences among the responses of parents with regard to their satisfaction of teaching ASD pupils in the regular schools – according to parents' gender, marital status and education.*

Additionally, the p-value for age was found to be 0.007, which is less than 0.05, thus was statistically significant. It implies that there are statistically significant differences among the responses of parents with regard to their satisfaction of teaching ASD pupils in the regular schools according to parents' age. The results of post hoc test (LSD) demonstrated that the difference was reported between parents in age groups 20-30 and 41-50 for favor of parents in age group 41-50 years with the higher level of satisfaction.

Discussion

What was once known as "autism" has become a continuum of neurodevelopmental disorders over the past decade, which has varying manifestations and impairment levels, which call for an equally wide-ranging care continuum. The rapid spike in ASDs diagnosis has led to a major recognition boom and a significant rise in the comprehension of this sophisticated disorder group. Previously, disabled students, especially ASD-pupils, had few chances to learn in public schools. Nevertheless, now, they can receive education at public schools through "inclusion", which means that all pupils, despite disability, are included in the general education classroom and actively participate in the academic and extracurricular activities of the school community. This inclusion calls for special preparation and training for teachers, as well as tailored instruction and education.

Given the aforementioned, a lack of teacher knowledge about the essence of ASD and successful approaches could contribute significantly to ASD teachers being stressed in handling the social and emotional challenges of children and parents' dissatisfaction. It is therefore important to offer teachers the greatest possible number of strategies to properly deal with ASD-students. This study was designed to analyze the attitudes of

parents of students with ASD towards the offered services in the regular schools. The study explicitly seeks to address the following questions of research: What are children on the autism spectrum parents' attitudes towards primary school education? What challenges do teachers face in traditional school classrooms with the inclusion of children with ASD?

Our current study found that most parents were able to provide accurate responses to the questionnaire items pertaining to services provided for ASD pupil in the school. Regarding the first questionnaire, our study found that most participants were not sure about the services' quality of regular schools which teach ASD pupils. But the parents agreed that the school adjusts assessment methods and curriculum to suit ASD pupils and provides appropriate resource room equipped with educational equipment and other aids. Also, our analysis accepted the first experimental hypotheses of the study i.e., there are no statistically significant differences among the responses of parents with regard to the services' quality of regular schools which teach ASD pupils according to parents' gender, age, marital status and education. These results were probably because the regular school services and teachers are still adapting to the needs of the ASD students. Also, the educational level and experience of teachers highly contribute towards the understanding and acceptance of ASD students. Education highly contributes to the rising trends in ASD awareness, and enables early diagnosis, attitude treatment among educated people, and can prevent prejudice against ASD individuals in the community. Some previous studies in which parents were asked to rate their overall satisfaction with education for their children showed that a narrow majority of participants were pleased with the education, but many

others were not (Starr, Foy, Cramer & Singh, 2006; Whitaker 2007). There has been a lack of teacher knowledge about the essence of ASD and of successful approaches, which have been found to contribute significantly to parent dissatisfaction. The author Batten et al., for instance, noticed the level of teacher comprehension of ASD to be only satisfactory for 30 percent of parents for children in inclusive classrooms that have ASD (Batten et al., 2006). The author Parsons and Lewis found the key explanations for home schooling in a survey of parents who homeschooled their children with special needs (most of them parents for children with ASD), that the school did not offer an adequate program or because of certain unpleasant experiences faced by the children, like that of bullying rather than a parental desire to homeschool (Parsons et al., 2010).

Secondly, most participants agreed that there are greatest difficulties which hinders successful teaching of ASD pupils in the regular schools including the readiness of work team, normal pupils, and their families to accept ASD pupils and interact with them, teaching methods in regular schools and its suitability for educating ASD pupils and preparing the school building where ASD pupil studies. Also, our analysis accepted the second experimental hypotheses, i.e., there are no statistically significant differences among the responses of parents with regard to the greatest difficulties which hinder successful teaching of ASD pupils in the regular schools according to parents' gender, age, marital status and education. A previous study which somewhat contradicted our study results showed that most participants will not feel uneasy if an autistic individual was present in their environment, workplace, or classroom of their children. These favorable viewpoints were probably due to participants higher level of

awareness and about ASD. (Surmen et al., 2015). Another previous study also showed that the lack of graduate level education may have contributed to the picture captured during the current study (Liu et al., 2016). In a study by the author Chakravarty et al., showed that parents' dreams, their expectations, and their aspirations were similar in case of both with and without disabled children. Many participants stated that if inclusion is allowed, it will be academically and socially beneficial, particularly if they engage with their peers with disabilities (Chakravarty et al., 2017). This inclusion may help abled students for being aware about ASD and instill a feeling of cooperation and willing to establish friendships with ASD pupils (Hughes & Carter, 2008). Further, most participants expressed that their children had just as many priorities as possible like happiness, friendship, and independence. They have, in addition, expressed their wish for their children to be protected and welcomed in the community and to have those who will look after them when their parents can no longer do so.

Thirdly, most participants were not sure about their satisfaction towards teaching of ASD pupils in the regular schools, but they agree that they took advantage of the seminars and workshops held by the school where ASD pupil studies to educate and train their families. They also agree that the school regularly evaluates their ASD son and had informed them of evaluation results. Further, our study accepted the third experimental hypothesis i.e., there are no statistically significant differences among the responses of parents with regard to their satisfaction of teaching ASD pupils in the regular schools according to parents' gender, marital status and education. But rejected the experimental hypothesis in case of parents' age i.e., there are statistically significant differences among

the responses of parents with regard to their satisfaction of teaching ASD pupils in the regular schools. There are several elements within the ASD kid that can affect parents including the intensity of illness signs, behavioral issues, intellectual capacity, and others (Davis & Carter, 2008). Given the escalated risk of stress-related disorders in parents of children with ASD, it is very necessary to have individualized knowledge and medical assistance, especially when the kid is diagnosed (Keen, Couzens, Muspratt, & Rodger, 2009). Thus, the seminars and workshops held by the school where ASD pupil studies helps parents a lot. The absence of community help will increase stress rates in parent of ASD kids, which is the best indicator of anxiety and depression (Mujkanovic et al., 2017). It is a known reality that social assistance could perform a preventative part in decreasing the effect of stress and removing it. Community reinforcement and positive relationships can shield individuals from physical disease to distress in all sorts of crises (Mujkanovic et al., 2017). Therefore, offering counseling services to parents of children with ASD is very necessary to avoid and decrease the levels of stress. Support programs can vary in scope and vary from informal programs such as peers, other parents, and so on to institutional services such as schools, community services, and healthcare services (Mujkanovic et al., 2017).

Conclusions

To put the study results in a condensed form, the parent's attitude towards the school services were found only satisfactory but they agreed that the school makes effort for ASD pupils and are continuously trying to implement satisfactory services for them. Nevertheless, this inclusion led to ASD students receiving the same opportunities and experience of non-

disabled students, still it is overly difficult to do so, due to a lack of training for teachers when it comes to dealing with disabled children, as well as a lack of the knowledge needed to construct suitable instruction and education for those students. Also, the present study was limited to only thirty-six parents of spectrum disorder who their children have their teaching in regular schools thus further must be done with large sample. Seeing that the attitudes of both parents regarding inclusive systems in schools play a significant role in influencing educational decision-making and leading to the effectiveness of inclusion programs, their views need to be discussed in greater detail.

Statements and Declarations:

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Competing Interest: none

Availability of Data and Materials: The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Ethical Approval and Consent to Participate: Ethical approval was taken from the Institutional Review Board (IRB) of the university. Participants were explained about the study and consent form was signed before participation.

References

- Baker-Ericzén, M. J., Brookman-Frazee, L., & Stahmer, A. (2005). Stress levels and adaptability in parents of toddlers with and without autism spectrum disorders. *Research and practice for persons with severe disabilities*, 30(4), 194-204.
- Barnes, K. (2009). The attitudes of regular education teachers regarding inclusion of students with Autism. *Dissertation Abstracts International* 69 (10a), 3905.
- Batten, A., & Withers, L. (2006). *Make school make sense: Autism and education: The reality for families today*. London: National Autistic Society.
- Brock, M. E., Dynia, J. M., Dueker, S. A., & Barczak, M. A. (2020). Teacher-reported priorities and practices for students with autism: Characterizing the research-to-practice gap. *Focus on Autism and Other Developmental Disabilities*, 35(2), 67-78.
<https://doi.org/10.1177/1088357619881217>
- Chakravarty, C. (2017). Attitudes about inclusive schooling among parents of children with autism. Department of research, evaluation and assessment. California. Published thesis, 2016-2017.
- Christensen, D. L. (2016). Prevalence and characteristics of autism spectrum disorder among children aged 8 years—autism and developmental disabilities monitoring network, 11 sites, United States, 2012. *MMWR. Surveillance Summaries*, 65.
- Davis, N. O., & Carter, A. S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: Associations with child characteristics. *Journal of autism and developmental disorders*, 38(7), 1278-1291.

- Drossel, K., Eickelmann, B., Ophuysen, S., & Bos, W. (2019). Why teachers cooperate: An expectancy-value model of teacher cooperation. *European Journal of Psychology of Education*, 34(1), 187–208. <https://doi.org/10.1007/s10212-018-0368-y>
- Eshraghi, A.A., Cavalcante, L., Furar, E., Alessandri, M., Eshraghi, R.S., Armstrong, F.D., & Mittal, R. (2022). Implications of parental stress on worsening of behavioral problems in children with autism during COVID-19 pandemic: “the spillover hypothesis”. *Molecular Psychiatry* 27, 1869–1870. <https://doi.org/10.1038/s41380-021-01433-2>
- Graham, L.J. (2021). Inclusive Education Challenges for Students with Autism Spectrum Disorder. *BU Journal of Graduate Studies in Education*, 13(3).
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.
- Hughes, C., & Carter, E. W. (2008). *Peer buddy programs for successful secondary school inclusion*. Baltimore, MD: Paul H. Brookes.
- Hummerstone, H., & Parson, S. (2020). What makes a good teacher? Comparing the perspectives of students on the autism spectrum and staff. *European Journal of Special Needs Education*. Advance online publication, 36(4). <https://doi.org/10.1080/08856257.2020.1783800>
- Humphrey, N., & Lewis, S. (2008). Make me normal: The views and experiences of pupils on the autistic spectrum in mainstream secondary schools. *Autism*, 12 (1), 23-46.

- Humphrey, N., & Parkinson, G. (2006). Research on interventions for children and young people on the autistic spectrum: A critical perspective. *Journal of Research in Special Educational Needs*, 6(2), 76-86.
- Humphrey, N., & Symes, W. (2013). Inclusive education for pupils with autistic spectrum disorders in secondary mainstream schools: teacher attitudes, experience and knowledge. *International Journal of Inclusive Education*, 17(1), 32–46.
doi:10.1080/13603116.2011.580462
- Keen, D., Couzens, D., Muspratt, S., & Rodger, S. (2010). The effects of a parent-focused intervention for children with a recent diagnosis of autism spectrum disorder on parenting stress and competence. *Research in Autism Spectrum Disorders*, 4(2), 229-241.
- Leach, D., & Duffy, M., L. (2009). Supporting students with autism spectrum disorders in inclusive settings. *Intervention in School and Clinic*, 45(1), 31-37.
- Leblanc, L., Richardson, W., & Burns, K., A. (2009). Autism spectrum disorder and the inclusive classroom. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 32(2), 166-179.
- Lindsay, S., Proulx, M., Scott, H., & Thompson, N. (2013). Exploring elementary school teachers' strategies for including children with autism spectrum disorder in mainstream classroom classes. *International Journal of Inclusive Education*, 18(2), 101-122.
- Liu, Y., Li, J., Zheng, Q., Zaroff, C. M., Hall, B. J., Li, X., & Hao, Y. (2016). Knowledge, attitudes, and perceptions of autism spectrum disorder in a stratified sampling of preschool teachers in China. *BMC psychiatry*, 16(1), 1-12.

- Mandina, S. (2012). Bachelor of education in-service teacher trainees' perceptions and attitudes on inclusive education in Zimbabwe. *Asian Social Science*, 8(13), 227 – 232.
- Milner, V., McIntosh, H., & Colvert, E. (2019). A Qualitative Exploration of the Female Experience of Autism Spectrum Disorder (ASD). *Journal of Autism and Developmental Disorders* 49, 2389–2402. <https://doi.org/10.1007/s10803-019-03906-4>
- Miranda, A., Mira, A., Berenguer, C., Rosello, B., & Baixauli, I. (2019). Parenting Stress in Mothers of Children With Autism Without Intellectual Disability. Mediation of Behavioral Problems and Coping Strategies. *Frontiers in psychology*, 10(464). <https://doi.org/10.3389/fpsyg.2019.00464>
- Mujkanovic, E., Mujkanovic, E., Pasalic, A., Biscevic, I. & Memisevic (2017). Quality of Educational Support for Children with Autism Spectrum Disorder in Bosnia and Herzegovina-Perception of Parents and Professionals. *International Electronic Journal of Elementary Education*, 9(4): 829-836.
- Parsons, S. & Lewis, A. (2010). The home-education of children with special needs or disabilities in the UK: Views of parents from an online survey. *International Journal of Inclusive Education*, 14(2), 67–86. <http://dx.doi.org/10.1080/13603110802504135>.
- Rivard, M., Terroux, A., Parent-Boursier, C., & Mercier, C. (2014). Determinants of stress in parents of children with autism spectrum disorders. *Journal of autism and developmental disorders*, 44(7), 1609-1620.

- Simón, C., Martínez-Rico, G., McWilliam, R.A., & Cañadas, M. (2022). Attitudes Toward Inclusion and Benefits Perceived by Families in Schools with Students with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*.
<https://doi.org/10.1007/s10803-022-05491-5>
- Smith, T. E., Polloway, E. A., Patton, J. R., & Dowdy, C. A. (2014). *Teaching students with special needs in inclusive settings*. USA: Pearson.
- Starr, E. M., Foy, J. B., Cramer, K. M., & Singh, H. (2006). How are schools doing? Parental perceptions of children with autism spectrum disorders, Down syndrome and learning disabilities: A comparative analysis. *Education and training in Developmental Disabilities*, 315-332.
- Surmen, A., Hidiroglu, S., Usta, H. H., Awiwi, M., Oguz, A. S., Karavus, M., & Karavus, A. (2015). A study exploring knowledge, attitudes and behaviours towards autism among adults applying to a Family Health Center in Istanbul. *Northern clinics of Istanbul*, 2(1), 13-18.
- Swanlund, A. (2011). *Identifying working conditions that enhance teacher effectiveness: The psychometric evaluation of the Teacher Working Conditions Survey*. Chicago. IL: American Institutes for Research.
- Van der Steen, S., Geveke, C., Steenbakkens, A. T., & Steenbeek, H. (2020). Teaching students with autism spectrum disorders: What are the needs of educational professionals? . *Teaching and Teacher Education*, 90. <https://doi.org/10.1016/j.tate.2020.103036>
- Warren, A., Buckingham, K., & Parsons, S. (2020). Everyday experiences of inclusion in primary resources provision: The voices of autistic pupils and their teachers. *European Journal of Special Needs Education*. Advance online publication. 36(5).
<https://doi.org/10.1080/08856257.2020.1823166>
- Whitaker, P. (2007). Provision for youngsters with autistic spectrum disorders in mainstream schools: what parents say—and what parents want. *British Journal of Special Education*, 34(3), 170-178.

Tables**Table (1)**

Frequency distribution of participants according to demographic characteristics

Variables	Groups	Frequency (f)	Percentage (%)
Gender	Male	14	38.9%
	Female	22	61.1%
Age	20 - 30 Y	5	13.9%
	31 - 40 Y	10	27.8%
	41 - 50 Y	16	44.4%
	51+ Y	5	13.9%
Marital Status	Married	28	77.8%
	Widowed	1	2.8%
	Divorced	7	19.4%
Education	Intermediate or less	6	16.7%
	Secondary	17	47.2%
	Bachelor	12	33.3%
	High studies	1	2.8%
Total		36	100%

Table (2)
Parents' perspectives towards services' quality of regular schools
which teach autism spectrum disorder pupils

Statements	Mean	SD	Chi-Square	Acceptance level	Rank
1-There are many regular schools that accept autism spectrum disorder pupils in the districts where we live and in the neighboring districts.	2.44	1.00	49.8**	Disagree	9
2. The number of pupils in the school where my son studies are suitable for autism spectrum disorder pupils.	2.86	1.15	11.8*	Not sure	5
3. The school prepared the work team, normal pupils and their families to accept autism spectrum disorder pupils, and to deal with them appropriately.	2.50	1.23	20.7**	Disagree	8
4. The school provides a specialized team to work with autism spectrum disorder pupils.	2.53	1.16	27.6**	Disagree	7
5. The school provides health care services to autism spectrum disorder pupils.	1.50	0.65	16.2**	Strongly disagree	10
6. The school provides a resource room appropriately equipped with educational equipment and aids suitable for autism spectrum disorder pupils.	3.75	0.73	82.9**	Agree	2
7. The school makes appropriate adjustments in the curriculum to suit autism spectrum disorder pupils.	3.61	0.87	50.4**	Agree	3
8. The school adjusts assessment methods to suit autism spectrum disorder pupils.	3.83	0.70	48.0**	Agree	1
9. The school where my son studies adjust the daily schedule to suit autism spectrum disorder pupils.	3.06	1.17	7.6	Not sure	4
10. The school where my son studies have informed me of the individual educational plan for him before starting to implement the plan.	2.81	1.39	7.3	Not sure	6
Total score	2.89	1.01		Not sure	

Table (3)

Parents' think about the greatest difficulties which hinder successful teaching of ASD pupils in the regular school

Statements	Mean	SD	Chi-Square	Acceptance level	Rank
11. Preparing the school building where my son studies to receive ASD pupils.	3.92	1.20	13.1**	Agree	3
12. The readiness of work team, normal pupils and their families to accept ASD pupils and interact with them.	4.08	0.99	17.1**	Agree	1
13. Teaching methods in regular schools and its suitability for educating autism spectrum disorder pupils.	4.06	0.86	14.0**	Agree	2
14. Not being aware of the individual educational plan prepared by the specialized team in the school where my son studies.	2.69	1.24	18.0**	Not sure	4
15. Not being aware of the results of my son's performance evaluation in school throughout the academic year.	2.26	1.07	32.9**	Disagree	5
Total score	3.40	1.07		Agree	

Table (4)

**Parents' satisfaction towards teaching of autism spectrum disorder
pupils in the regular schools**

Statements	Mean	SD	Chi-Square	Acceptance level	Rank
16. I took advantage of the seminars and workshops held by the school where my son studies to educate and train the families of autism spectrum disorder pupils.	4.14	0.93	19.8**	Agree	1
17. The school participates with the family in designing programs for autism spectrum disorder pupils within the school.	2.89	1.24	24.9**	Not sure	4
18. The school regularly evaluates my son, and I am informed of the evaluation results.	3.75	1.03	30.9**	Agree	2
19. My son's educational skills had been improved by being in the regular school.	2.92	1.05	16.2**	Not sure	3
20. I feel comfortable with my son being in the regular school, whether in a class for autism spectrum disorder pupils or with normal pupils.	2.78	1.15	22.9**	Not sure	5
Total score	3.30	1.08		Not sure	

Table (5)

Difference between response of parents with regard to the services' quality of regular schools which teach ASD pupils – according to parents' demographics

Variable	Groups	Mean	SD	Test value	p-value
Gender	Male	2.72	0.58	T = -1.523	0.137
	Female	3.00	0.49		
Age	20 - 30 Y	2.74	0.38	F = 1.029	0.393
	31 - 40 Y	2.87	0.54		
	41 - 50 Y	3.04	0.60		
	51+ Y	2.60	0.35		
Marital Status	Married	2.87	0.55	F = 0.068	0.934
	Widowed	2.90	-		
	Divorced	2.96	0.57		
Education	Intermediate or less	2.87	0.29	F = 0.340	0.796
	Secondary	2.95	0.70		
	Bachelor	2.86	0.37		
	High studies	2.40	-		

Table (6)

Difference between response of parents with regard to the greatest difficulties which hinder successful teaching of autism spectrum disorder pupils in the regular schools – according to parents' demographics

Variable	Groups	mean	SD	Test value	p-value
Gender	Male	3.54	0.57	T = 1.324	0.194
	Female	3.25	0.70		
Age	20 - 30 Y	3.28	0.99	F = 0.890	0.457
	31 - 40 Y	3.64	0.82		
	41 - 50 Y	3.29	0.53		
	51+ Y	3.12	0.23		
Marital Status	Married	3.37	0.69	F = 0.021	0.979
	Widowed	3.40	-		
	Divorced	3.31	0.63		
Education	Intermediate or less	3.30	1.11	F = 0.375	0.771
	Secondary	3.48	0.66		
	Bachelor	3.22	0.41		
	High studies	3.40	-		

Table (7)

Difference between response of parents with regard to their satisfaction of teaching autism spectrum disorder pupils in the regular schools – according to parents' demographics

Variable	Groups	Mean	SD	Test value	p-value
Gender	Male	3.36	0.57	T = 0.408	0.686
	Female	3.25	0.82		
Age	20 - 30 Y	2.48	0.30	F = 4.754	0.007**
	31 - 40 Y	3.16	0.62		
	41 - 50 Y	3.66*	0.65		
	51+ Y	3.20	0.81		
Marital Status	Married	3.35	0.77	F = 0.891	0.420
	Widowed	2.40	-		
	Divorced	3.20	0.53		
Education	Intermediate or less	2.67	0.50	F = 2.529	0.075
	Secondary	3.31	0.65		
	Bachelor	3.53	0.79		
	High studies	4.00	-		

Key Message:

- Most participants were not sure about their satisfaction towards teaching of ASD pupils in the regular schools.
- But parents agreed that the school makes effort for ASD pupils and are continuously trying to implement services for them.
- The inclusion led to ASD students receiving the same opportunities and experience of non-disabled students.
- The services are still difficult to implement fully due to lack of knowledge and training of teachers when it comes to dealing with ASD children.
- Complete knowledge is needed to construct suitable instruction and education for ASD students.