

International Journal of Learning, Teaching and Educational Research
Vol. 22, No. 6, pp. 395-414, June 2023
<https://doi.org/10.26803/ijlter.22.6.21>
Received Apr 13, 2023; Revised Jun 15, 2023; Accepted Jun 17, 2023

An Investigation into Communication between Teachers and Parents of Students with Autism Spectrum Disorder

Abdulaziz Hamad Al-Hamad 

Faculty of Education, King Faisal University
Al-Ahsa, Saudi Arabia

Sherif Adel Gaber 

Faculty of Education, King Faisal University
Al-Ahsa, Saudi Arabia

Sayed Ibrahim Ali 

Faculty of Medicine, King Faisal University
Al-Ahsa, Saudi Arabia
Faculty of Education, Helwan University, Cairo, Egypt

Abstract. Many schools emphasize the family partnership and its educational function. Cooperation between the school and the home is an essential building block of educational success. Since the family is the basis of the social system, this partnership is rooted in values and traditions. It also meets parents' need for a sense of respect. The main objective of the study is to determine the nature of communication between teachers and parents of students with autism spectrum disorder (ASD) and its relationship to the students' performance level, as described in their individualized educational program (IEP). A descriptive correlational approach was used. The sample consisted of 50 male and 14 female teachers; data were collected using a validated questionnaire prepared by researchers. The main research findings show that the level of communication between teachers and parents of students with ASD was low (from the teachers' perspectives) while the students' performance levels were average. There was a positive correlation between parent-teacher communication and student performance. In addition, there were statistically significant differences in communication based on the teachers' gender (in favor of female teachers) and educational levels (in favor of those with a post-graduate degree). Based on these results, it can be concluded that communication between teachers and the parents of children with ASD is important and can improve their academic performance.

* Corresponding author: Sherif Adel Gaber; Email: sagahmed@kfu.edu.sa

Keywords: communication; teachers; parents; autism spectrum disorder; individualized educational program

1. Introduction

The educational process, in all its dimensions, is a system that comprises various integrated parties, the most important of which are the family, school, and community. All of these parties must cooperate to reach the desired results. These results can only be achieved through communication and establishing positive relationships between the family and the school. These are basic building blocks of educational success.

Effective educational programs for students with autism spectrum disorder (ASD) provide curricula that are planned and individualized according to the needs of each student and with emphasis on the student's strengths and familial involvement at every step so that the student has a better chance of success (Azeem et al., 2016). When students with ASD start school, the relationships between their teachers and parents have a significant influence on their academic outcomes and performance levels (Garbacz et al., 2016). A good school is one that seeks to establish a participatory relationship with the family, while a school that operates in isolation from the family is a weak school (Al-Khatib & Al-Hadidi, 2009). Moreover, families play an important role in facilitating students' success by providing support and cooperating with teachers (Croft, 2020).

Family partnerships are crucial because the family is the first incubator for children, responsible for instilling values, establishing trends, and teaching them sound behaviors during the first years of their lives. When families understand their role in the educational process and communicate with the school continually to learn about their children's academic achievement, this contributes significantly to improving the educational and institutional performance of the school (Saudi Ministry of Education, 2017). Muhidat (2016) indicates that most countries have enacted legislation obligating educational institutions to involve the family in the educational process, given the positive results of such participation on students' final outcomes. Moreover, communication between teachers and parents is one of the primary components that determine student success.

As it is critical to help students achieve their educational aspirations, research suggests that teamwork and communication between the school and family significantly improve students' chances of success (Means, 2021). Successful partnerships generally provide opportunities for teachers and parents to work together to address obstacles and improve students' overall achievement both at school and at home. As a result, ongoing communication between teachers and parents is essential for a fruitful collaboration, particularly for students with ASD who may need specific care (Aljafari, 2019). Family engagement leads to strategies that are more attentive to the needs of children with ASD and support improved social, emotional, and academic outcomes. Furthermore, others say that parents have a right to participate in how the classroom is run – another important aspect of special education legislation (Jivanjee et al., 2007).

Because efficient communication is critical for a child's intellectual, social, and emotional development, the relationships among teachers, students, parents, and other members of the school staff should be evaluated and reviewed often to determine how well they work (Natale & Lubniewski, 2018). Those who work at school must communicate effectively, show interest in the student, and address their development and learning—rather than focusing exclusively on the difficulties the student faces (Berg, 2021). It is especially crucial for instructors and parents to discuss children's classroom performance. This can help both parties understand the student's challenges, offer each other advice and direction, boost parental support, and enhance students' motivation and achievement (LaBarbera, 2017).

Educators and parents of children with ASD converge on some educational issues; however, gaps in their communication remain. Both teachers and parents understand the importance of cooperation and communication, which they regard as contributing positively to improving students' skills. Most teachers also believe that parents need support and advice regarding how to deal with the difficulties their children face (Syrioboulou-Delli et al., 2016). Effective communication helps parents and instructors agree on their expectations and the students' needs so they can assist them cooperatively (Azad et al., 2021).

Several studies, including one by Tucker and Schwartz (2013), have identified the need for research to develop effective interventions to improve outcomes for students with ASD and address parental concerns regarding home-school communication. The researchers in the present study found that communication between teachers and the families of students with ASD is limited to parent-teacher conferences and calling when a problem or emergency occurs.

Therefore, the study aims to identify the reality of communication between teachers and families of students with ASD and its relationship to improving their level in the individualized educational program (IEP). It may contribute to raising awareness among teachers of students with ASD of the importance of communicating with their families, enhancing the importance of communication between them, and highlighting the most effective methods of communication. It also provides objective quantitative data about the relationship between communication with the family and the student's level of progress in the IEP.

It focused on the following research questions:

- Q1. How do teachers perceive their communication with parents of students with ASD?
- Q2. What are the performance levels of students with ASD?
- Q3. Is there a correlation between teachers' communication with parents of students with ASD and their performance levels?
- Q4. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's gender?
- Q5. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's academic qualifications?

Q.6. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's experience?

2. Literature Review

ASD is described as a pervasive deficiency in social communication and interaction skills across a variety of circumstances. Its characteristics include deficiencies in social and emotional interaction, challenges with nonverbal communication, and difficulties creating, maintaining, and comprehending relationships (Saudi Ministry of Education, 2015). Communication is an effective way to exchange information about school programs and children's progress (Goldman & Mello, 2020); it also allows parents to consult with professionals and specialists. It can take place in one-on-one meetings, group settings, or workshops (Muhidat, 2016).

IEPs help students with ASD who have better adult lives and educate those around them about the condition (Mohammed & Ahmed, 2019). They also help children develop skills, gain experience and information, and make up for their deficits. Parents must be patient and persevere until positive results are achieved and the child's development can be observed (Ismail, 2019). IEPs for students with ASD should be based on the comprehensive design of an educational environment with features that help them develop their abilities. This includes the content of the curriculum and the choice of teaching strategies, teaching methods, assessment methods, and systems for monitoring data related to student progress. Moreover, comprehensive educational programs do not only focus on the child's disability aspect but address the child as a whole: physically, mentally, socially, emotionally, and behaviorally. Individual intervention is necessary because each child has unique characteristics, needs, and abilities (Al-Ghunaimi, 2017).

An IEP is a written document that describes the special education and other services regarding children with a disability to meet their special needs. It contains six basic components: (a) description of the child's current academic and functional performance; (b) annual educational goals; (c) related services; (d) educational alternatives; (e) time and duration of service provision; and (f) assessment of the student's progress (Boutot, 2017). It seeks to achieve the following objectives: (a) ensure that the child receives educational and support services; (b) guarantee that the family receives appropriate care for their child; (c) facilitate communication between the concerned authorities to serve the student and family; (d) determine the procedures necessary to provide educational and support services; and (e) measure the child's progress (Al-Jalamdah, 2015).

IEPs are important because they do the following: (a) provide all of the measurements of a child's abilities; (b) consider the child's needs; (c) ensure the continuous evaluation of the child and the choice of appropriate services; (d) define the responsibilities of each specialist in the implementation of special educational services; (e) test the effectiveness of the services provided; and (f) involve the child's parents in the educational process (Hussein, 2013). However, there are also some difficulties related to IEPs that can occur, including the following: (a) the absence of a multidisciplinary team; (b) the failure to involve the

family; (c) a lack of commitment to implementing the program correctly; (d) a lack of experience with IEPs among some teachers; (e) a lack of support services needed by the child; and (f) inappropriate goals (Obeid, 2010).

When developing an IEP, a multidisciplinary team is convened to address the children's medical, psychological, educational, speech and language, and audio-visual needs, as well as determining their strengths and weaknesses. The multidisciplinary team can include the following professionals: (a) special education teacher; (b) psychologist; (c) doctors or specialists; (d) speech and language therapist; (e) psychomotor therapist; (f) school nurse; (g) student advisor; (h) family; (i) psychological and educational assessment specialist; (j) general education teacher(s) if the children are enrolled in mainstream classes; and (k) anyone else who may be a useful source of information (Bltaji, 2016).

Families of students with ASD have an important role in supporting their educational success by enhancing acquired skills, identifying strengths and weaknesses, and working with teachers to meet their needs (Al-Zaraa et al., 2022).

To improve the child's education, this team of experts from different fields must think about the family's desires and the child's strengths. Specialists help families obtain the information they need. However, to get parents involved in the program, they must communicate in a way that the family can understand. When a child with ASD joins a mainstream class, even when this is only part-time, the classroom teacher must be provided with a copy of the IEP. The special education teacher should explain the content of the IEP and offer counseling and information. The IEP must also include services that help the child succeed in the mainstream class (Cook et al., 2019). Finally, there is a need for continuous evaluation to determine the child's performance and progress towards the goals outlined in the IEP. The information obtained through such evaluations can later be used to revise and improve the IEP (Al-Rashidi, 2017).

An IEP, which acts as a "blueprint" for a child's particular learning requirements, is intended to improve communication between parents and school officials about the resources and support children with ASD should receive (Slade et al., 2018). It is common for teachers to talk to their students' parents about events that take place in class, the children's performance, homework, and behavior problems. Common methods of communication include notes, home visits, phone calls, and even text messages, according to the preferences of the instructor or family. As technology improves, however, the preferred methods are changing. In an ideal world, the communication process between teachers and parents would be two-way, not one-way (Kosaretskii & Chernyshova, 2013).

The benefits of parent-teacher communication include the following: (a) the child performs well in school; (b) teachers encounter fewer problems and report higher job satisfaction; and (c) parents have positive feelings toward the school (Lemmer, 2004). The goal of communication between teachers and the families of children with ASD is to find common ground and points of agreement that make it easier to care for the children inside and outside of school, meet their needs, and improve

their lives (Al-Qahtani, 2016). Communication between parents and teachers positively contributes to student success. Students perform better in school if their parents talk to their teachers, regardless of the method of communication used: parent-teacher conferences, emails, or phone calls (Dunham, 2016).

A partnership between a teacher and a guardian has three stages. The first is called the beginning stage, in which the parties determine the method of continuous cooperation and define the specific goals, roles, and responsibilities of each member. The second stage is the evaluation stage, which comprises following up on the children's condition and progress, as well as participating in conferences to strengthen the partnership continually. The final stage of the partnership involves helping the student transition effectively to the next step of their academic journey. Both parties in such partnerships have information about the children's unique knowledge and skills. Parents are well aware of their children's history, life, and interests, while teachers have knowledge of pedagogy, assessment, school procedures, and student performance. Accordingly, parents and educators should share their knowledge and collaborate (Gooch, 2018).

Caregivers are an important part of the education of children with ASD. Therefore, school systems should encourage caregiver involvement and build meaningful home-school connections to help children (LaBarbera, 2017). According to Azad et al. (2016), the effectiveness of the school-family relationship, particularly for children with ASD, is strongly dependent on the quality of communication between teachers and parents. This has a significant influence on pupils' overall achievement, both in and out of school. Parental involvement leads to a strong, collaborative relationship and promotes academic success. In this process, defining roles is one important way to communicate values related to learning and achievement, as well as establishing a good relationship (LaRocque et al., 2011).

Parents of children with disabilities suggest that many factors impact their children's success in school; communication between parents and teachers is one of the most important (Smith et al., 2016). A study by Azad and Mandell (2018) suggests that collaborative communication is important for ensuring that the same practices are followed at school and home, which ultimately benefits children with ASD. The researchers believe that the family should be involved in the preparation of the IEP and can serve as an important partner for the teacher.

However, the methods teachers use to communicate with their students' families may limit the effectiveness of the process. Moreover, a lack of communication can lead to serious problems in the educational system, including misunderstandings. Research has shown that students do better when their parents and teachers collaborate to help them (Patton, 2019). Parents and teachers must talk to each other to help students move in the right direction and improve the quality of education (LaRocque et al., 2011). Therefore, schools should be encouraged to work with parents and develop inclusive, two-way forms of communication.

Although the importance of communication between schools and parents of students with ASD is acknowledged, there is a paucity of qualitative and quantitative research on this topic (Goldman et al., 2019). Parents and teachers of students with ASD need to take on additional responsibilities to facilitate communication. Furthermore, this process allows students to share their experiences and helps parents and instructors coordinate educational material. This suggests the need for knowledge about the nature of home-school communication—particularly, in relation to students with ASD (Stanley et al., 2005). Despite the importance of two-way communication, parents of students with ASD report being less satisfied with their communication with their children's schools than parents of students with other disabilities and parents of students without disabilities (Zablotsky et al., 2012).

Al-Shammari and Yawkey (2008) indicated that parents of children with special needs can participate in classroom activities and school functions in many different ways. The results of their study showed that more than 70% of the parents participated in their children's classrooms, while 81% believed that their children's academic performance improved when they did so. Azad and Mandell (2018) determined instructors' and parents' ideal relationships with one another. In the study's findings, four major issues were identified: (a) parents and teachers are interested in different elements of intergenerational communication; (b) instructors and parents are apprehensive about the other's desire for more engagement; (c) parents and educators are irritated because the other party does not implement their recommendations, which they ascribe to a lack of faith in their abilities; and (d) teachers value the presence of parents in the classroom and want them to take on a more active role. According to the findings, both parents and instructors are disappointed with their interactions.

Spencer's (2020) study aimed to determine how parents understood IEP meetings. The results revealed that most parents were satisfied with the IEP meetings, although more than 43% reported that they were not familiar with their child's IEP and expressed the need for more communication and information during the meeting and throughout the school year. Parents cited an understanding of the plan and process as key factors of participating in IEP meetings. Means (2021) aimed to determine how parents and teachers perceived their experiences with cooperating to develop the student's IEP. The results showed that teachers were more likely to perceive that the collaboration was successful and had a greater desire to work as a collaborative team. Both teachers and parents reported that they needed additional information or training to achieve this reality. Teachers also expressed a desire for more training on how to collaborate effectively.

Nickels (2010) emphasized the need for ongoing communication between parents and teachers as a crucial component of good educational programs for students with ASD, placing a higher value on this factor than IEP team sessions. Al-Qahtani (2016) sought to identify the obstacles that teachers in the Sports City in the Kingdom of Saudi Arabia perceive as affecting their communication with the families of children with ASD. The results showed a discrepancy in the barriers to successful communication between parents of children with ASD and their

teachers: obstacles related to parents and the school were more significant than those related to teachers. The results showed no statistically significant differences between the mean scores of the sample on the three domains of the questionnaire; however, there were statistically significant differences in terms of the number of obstacles due to the variable of academic qualification.

Syriopoulou-Delli et al. (2016) sought to identify the views of teachers and parents on issues related to the cooperative education of children with ASD. Primary schools in Greece were randomly assigned to respond to the questionnaire. The results of the study indicated that the majority of teachers and parents regarded communication and cooperation as very important. Moreover, cooperation contributed to improving children's skills. Similarly, Azad et al. (2021) aimed to improve communication between parents and teachers of children with ASD. After engaging in Partners in School, parents and teachers saw improvements in their children's outcomes. Changes in parent-teacher contact were connected with changes in the outcomes of certain children. This underscores the significance of communication in family-school collaboration therapy.

Al-Khairallah (2015) dealt with measuring the effectiveness of communication methods (i.e., meetings, short messages, e-mails) between teachers and parents of students with intellectual disabilities. The study found that many communication methods were effective and enabled teachers to discuss various aspects of the child's progress. Al-Dossary (2018) showed that teachers and parents believe it is highly important for the parents of students with intellectual disabilities to participate in the IEP process. However, the study also revealed that the most important obstacle to parents' participation was a lack of confidence that their participation would have positive results. This was attributed to teachers' assertion that parents' participation is meaningless.

Based on a review of the literature related to the subject of the current study, there are no studies in the Arab world that deal with communication between teachers and the parents of students with ASD and its relationship to the child's performance level. There are also very few international studies dealing with this subject. This makes the current study important. Given this lack of directly relevant research, the researchers considered some studies that are indirectly related to the subject of the study. They generally concerned communication between teachers and the parents of children with disabilities. Most of the previous studies agreed on the importance of communication between teachers and parents, its impact on the educational process, and parents' participation in the IEP process. Other studies mentioned the importance of parents' participation but noted that current participation levels were low.

3. Materials and Methods

This section presents the materials and methods employed in the study to achieve the study objective and answer the research questions. The sub-sections that follow provide a detailed overview of the study design, participant selection criteria, the study tool utilized, and the data analysis techniques employed.

3.1 Study design and participants

The study employed a descriptive-correlational approach to investigate the research objectives and answer the research questions. This approach falls within the realm of quantitative research and follows a correlational paradigm. The chosen methodology was deemed appropriate for the study owing to its focus on determining intermittent relationships among study variables.

The study population consisted of all teachers who worked with ASD students in Al-Ahsa, Saudi Arabia. The population was estimated to include 87 teachers: 65 males and 22 females. A sample of 64 teachers was selected to participate in the study. The sample selection technique utilized was random sampling.

3.2 Inclusion criteria

1. Participants who were certified teachers working with students diagnosed with ASD in an educational setting;
2. Participants who had experience communicating with parents of students with ASD; and
3. Participants who had knowledge of students' IEPs and performance levels.

3.3 Exclusion criterion

Participants who had less than one year of experience teaching students with ASD.

3.4 Study tool

A questionnaire was used to collect data and answer the research questions owing to its suitability to the objectives, methodology, and population of the study. After reviewing the previous studies related to the topic and receiving approval for the subject, data, questions, and objectives, a questionnaire was designed in two parts. To determine the validity of the questionnaire and ensure that it measured the intended constructs, it was presented in its initial form (comprising 19 items) to five experts in the field of special education. The experts made comments and agreed on the required adjustments. Eight items were added, bringing the total number of objects to 28.

The reliability coefficient Cronbach's alpha (α) was used to calculate the reliability of the two factors of the questionnaire and its total score. The Cronbach's alpha values of the two factors were 0.947 and 0.862, respectively. The general reliability coefficient of the questionnaire was 0.938. These values confirm that the questionnaire had a high degree of reliability.

3.5 Data analysis

The data were coded and analyzed using SPSS-26. Means, frequencies, and percentages were used as the descriptive data. In addition, the Mann-Whitney, Kruskal-Wallis, and Pearson correlation tests were used to analyze the data. The study found a significant positive correlation between teachers' communication with the parents of students with ASD and their performance levels ($p < 0.05$ was considered significant).

4. Results

In the following sub-sections, the results of the current study are presented, providing a concise analysis of the collected data. It commences with descriptive statistics, followed by the outcomes of the Mann-Whitney and Kruskal-Wallis tests to explore potential differences in teachers' communication and performance levels based on demographic variables. Lastly, the findings of the Pearson correlation test are discussed, examining the relationship between teachers' communication and student performance. These results offer valuable insights into the research objectives and contribute to the field of ASD education.

By collecting the responses of teachers of students with ASD through the study tool and conducting appropriate statistical operations to answer the study questions, the following results were reached:

4.1 Q1. How do teachers perceive their communication with parents of students with ASD?

A three-point Likert scale was used to determine the degree of responses to the first factor. Accordingly, the following criterion was used to judge the values of the means of the factor: if the mean is from (1) to (1.67), then the reality is of a weak degree; if the mean is from (1.67) to (2.34), then the reality is of an average degree; if the mean is from (2.34) to (3.00), then the reality is of a high degree, as shown in Table 1.

Table 1: The reality of teachers' communication with parents of students with ASD in the IEP from the teachers' point of view

	Items	Always n(%)	Often n(%)	Never n(%)	Mean	Degree	Rank
1	I hold periodic interviews and meetings with parents	8(12.5)	47(73.44)	9(14.06)	1.98	Medium	7
2	I answer parents' inquiries and questions	1(1.56)	11(17.19)	52(81.25)	1.20	Low	20
3	I urge parents to participate in the educational process	2(3.12)	21(32.81)	41(64.06)	1.39	Low	16
4	I invite parents to visit the class to learn about the education provided to their children	2(3.12)	43(67.19)	14(21.88)	1.89	Medium	8
5	I give instructions to parents to help their children perform their assigned household duties	0(0)	20(31.25)	44(68.75)	1.31	Low	18
6	I hold periodic meetings with parents to ensure that they understand the psychological, social, and educational needs of their children	12(18.75)	40(62.5)	12(18.75)	2	Medium	6

7	I communicate with parents about their participation in various activities	29(45.31)	24(37.5)	11(17.19)	2.28	Medium	3
8	I provide educational methods for parents to help them communicate with their children	3(4.69)	29(45.31)	32(50)	1.55	Low	13
9	I offer different suggestions for methods by which parents can support their children's performance	1(1.56)	26(40.63)	37(57.81)	1.44	Low	14
10	I prepare questionnaires for the parents to solicit their opinions about their children's condition	6(9.38)	29(45.31)	29(45.31)	1.64	Low	10
11	I use various means of communication (e.g., phone, e-mail, WhatsApp) to follow up with parents on their children's performance	3(4.69)	20(31.25)	41(64.06)	1.41	Low	15
12	I send out informational brochures to parents	18(28.13)	37(57.81)	9(14.063)	2.14	Medium	5
13	I communicate with parents by meeting them at parents' councils	3(4.69)	34(53.13)	27(42.19)	1.66	Low	9
14	I use the homework book to communicate with parents	1(1.56)	10(15.62)	53(82.81)	1.19	Low	21
15	I communicate with parents when I have issues with their children	1(1.56)	13(20.31)	50(78.13)	1.23	Low	19
16	I ask the parents to participate in monitoring and observing their children	4(6.25)	28(43.75)	32(50)	1.56	Low	12
17	I involve parents in preparing their children's IEPs	26(40.63)	26(40.63)	12(18.75)	2.22	Medium	4
18	I involve parents in implementing their children's IEPs	27(42.19)	30(46.88)	7(10.94)	2.31	Medium	2
19	I involve parents in developing their children's IEPs	32(50)	21(32.81)	11(17.19)	2.33	Medium	1
20	A student's performance improves when teachers communicate with the parents	2(3.13)	19(29.69)	43(67.19)	1.63	Low	11
21	A student's performance improves when their parents participate in the preparation and implementation of the IEP	2(3.13)	18(28.13)	44(68.75)	1.34	Low	17
The general mean					1.69	Low	

It is clear from Table 1 that the general mean for the first factor was 1.69. The mean responses of the study sample about determining the reality of teachers' communication with parents of students with ASD from the teachers' point of

view ranged between 1.19 and 2.33. Item No. 19 (I involve parents in developing their children's IEPs) ranked first with a mean of 2.33, followed by item No. 18 (I involve parents in implementing their children's IEPs) which ranked second with a mean of 2.31. Item No. 7 (I communicate with parents about their participation in various activities) was ranked in third place with a mean of 2.28.

Item No. 15: (I communicate with parents when I have issues with their children) ranked nineteenth with a mean of 1.23, Item No. 2: (I answer parents' inquiries and questions) ranked twentieth with a mean of 1.20, while Item No. 14: (I use the homework book to communicate with parents) ranked twenty-first with a mean of 1.19, from the points of view of the study sample of teachers.

4.2 Q2. What are the performance levels of students with ASD?

A five-point Likert scale was used to determine the degree of response to the second factor. The following criterion was relied upon when judging the values of the means of the second factor: If the mean is from (1) to (1.80), then the level is weak, and if the mean is from (1.80) to (2.60), then the level is average. If the mean is greater than (2.60) to (3.40), the level is good, and if the mean is from (3.40) to (4.20), the level is very good. If the mean is from (4.20) to (5.00), the level is high, as shown in Table 2:

Table 2: The frequencies and percentages related to determining the level of students with ASD in the IEP from the point of view of teachers (n = 64)

	Items	Very high n(%)	High n(%)	Medium n(%)	Low n(%)	Very low n(%)	Mean	Degree	Rank
22	What is a student's academic level when their parents participate?	2(3.13)	20(31.25)	29(45.31)	11(17.19)	2(3.13)	3.14	Medium	5
23	What is a student's cognitive level when their parents participate?	10(15.63)	23(35.94)	28(43.75)	2(3.13)	1(1.56)	3.61	Medium	2
24	What is a student's language level (i.e., receptive, expressive) when their parents participate?	7(10.94)	20(31.25)	32(50)	5(7.81)	0(0)	3.45	Medium	3
25	What is a student's level of social skills when their parents participate?	2(3.13)	11(17.19)	41(64.06)	10(15.63)	0(0)	3.08	Medium	6
26	What is a student's level of motor skills (i.e., gross, fine) when their parents participate?	2(3.13)	10(15.62)	27(42.19)	25(39.06)	0(0)	2.83	Medium	7

27	What is a student's level in the field of self-care (i.e., making food, getting dressed, personal hygiene, going to the bathroom) when their parents participate?	5(7.81)	20(31.25)	35(54.69)	4(6.25)	0(0)	3.41	Medium	4
28	What is a student's level of self-protection (i.e., perceiving risks inside/outside the home) when their parents participate?	24(37.5)	4(6.25)	30(46.88)	5(7.81)	1(1.56)	3.70	High	1
The general mean							3.32	Medium	

Table 2 shows that the general mean for the second factor was 3.32, which confirms that students with ASD have a high level in their IEPs from the point of view of teachers.

The average responses of the study sample of teachers about determining the level of students with ASD in the IEP ranged between 2.83 and 3.70. Item No. 28: (What is a student's level of self-protection [i.e., perceiving risks inside/outside the home] when his parents participate?) came first with a mean of 3.70, followed by item No. 23: (What is a student's cognitive level when his or her parents participate?) in second place with a mean of 3.61, and item No. 24: (What is a student's language level [i.e., receptive, expressive] when his or her parents participate?) ranked third with a mean of 3.45.

Item No. 22: (What is a student's academic level when his or her parents participate?) ranked fifth with a mean of 3.14, followed by Item No. 25: (What is a student's level of social skills when his or her parents participate?) which ranked sixth and penultimately with a mean of 3.08, while item No. 26: (What is a student's level of motor skills [i.e., gross, fine] when his or her parents participate?) ranked seventh with a mean of 2.83, from the points of view of teachers.

4.3 Q3. Is there a correlation between teachers' communication with parents of students with ASD and their performance levels?

Pearson's coefficient was used to verify the statistical significance of the correlation, and the results are shown in Table 3:

Table 3: The results of the Pearson correlation coefficient for the correlation between the reality of teachers' communication with parents of students with ASD and the level of the student in the IEP

Variables	n	Correlation coefficient	p-value
The reality of teachers' communication with parents	64	0.375	0.002
The level of the student in the IEP	64		

Table 3 shows that the correlation coefficient between the two variables is 0.375, which indicates an average positive correlation between them. The p-value of 0.002 indicates that this correlation is statistically significant at 0.05.

4.4 Q4. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's gender?

The results are shown in Table 4:

Table 4: The results of the Mann-Whitney test to indicate the differences between the points of view of the respondents depending on the type variable (n = 64)

Questionnaire factors	Gender	n	Sum of ranks	Mean ranks	U Test	p-value
The first factor: the reality of teachers' communication with parents of students with special needs ASD	Male	50	1601.50	32.03	326.50	0.001
	Female	14	478.50	34.18		
The second factor: the level of students with ASD in the IEP	Male	50	1499	29.98	224	0.039
	Female	14	581	41.50		

Table 4 shows the following results:

For the first factor, the results show a significant difference in the points of view of male and female respondents regarding the reality of teachers' communication with parents of students with special needs (ASD), as indicated by the very low p-value of 0.001. The mean ranks of male and female respondents were 32.03 and 34.18, respectively, suggesting that female respondents had a slightly more positive view of teachers' communication with parents.

The p-value of 0.039 for the second factor indicates a significant difference in the opinions of male and female respondents regarding the proportion of students with ASD in the IEP. The mean ranks of male and female respondents were 29.98 and 41.50, respectively, indicating that female respondents had a significantly more positive view of the level of students with ASD in the IEP than male respondents had.

4.5 Q5. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's academic qualifications?

The results are shown in Table 5:

Table 5: The results of the Mann-Whitney test to indicate the differences between the points of view of the respondents according to the educational qualification variable (n =64)

Questionnaire factors	Educational level	n	Sum of ranks	Mean ranks	U Test	p-value
The first factor is the reality of teachers' communication with parents of students with special needs ASD	Bachelor	55	1712	31.13	172	0.029
	Post-graduate	9	368	49.67		
The second factor is the level of students with ASD in the IEP	Bachelor	55	17.08	31.05	188	0.013
	Post-graduate	9	372	50.96		

Table 5 shows the following results:

Based on the results, there is a significant difference in the respondents' point of view regarding the reality of teachers' communication with parents of students with special needs (ASD) between those with a bachelor's degree and those with a postgraduate degree ($p = 0.029$). Similarly, there is a significant difference in the respondents' point of view regarding the level of students with ASD in the IEP between those with a bachelor's degree and those with a postgraduate degree ($p = 0.013$).

4.6 Q.6. Are there statistically significant differences in teachers' communication with parents of students with ASD based on the teacher's experience?

The results are shown in Table 6:

Table 6: The results of the Kruskal-Wallis test to indicate the differences between the sample's points of view on the study tool according to the years of experience variable

Questionnaire factors	Experience years	n	Mean ranks	df	χ^2	p-value
The first factor is the reality of teachers' communication with parents of students with special needs ASD	Less than 5 years	8	38.81	3	3.491	0.322
	From 5-10 years	31	29.55			
	From 11-15 years	17	37.35			
	16 years and over	8	27.31			
The second factor is the level of	Less than 5 years	8	30.88	3	0.189	0.979

students with ASD in the IEP	From 5-10 years	31	32.44			
	From 11-15 years	17	32.29			
	16 years and over	8	34.81			

Table 6 shows the following results:

There are no statistically significant differences between the respondents' points of view about determining the reality of teachers' communication with parents of students with ASD in the IEP due to the number of years of experience variable ($p=0.322$).

There are no statistically significant differences between the attitudes of the sample members regarding determining the level of students with ASD in the IEP due to the number of years of experience variable ($p=0.979$).

5. Discussion

The results of the teachers' responses to the questionnaire statements confirm that teachers often communicate with the parents of students with ASD. The most frequent method identified was using the homework book to communicate with parents. The teachers' responses mentioned that parents' participation in the preparation, implementation, and development of IEPs was average. According to a study by Tucker and Schwartz (2013), many parents of children with ASD suffer from difficulties or are not included in the cooperative process. Similarly, a study by Al-Osaimi (2019) stated that family participation in the IEP process is hindered by the absence of a system that obliges the family to participate. However, the teachers in this study believed that family participation in the IEP process allows the child's performance to develop and improve. As stated in the results of Al-Dossari's (2018) study, parents' participation in preparing IEPs for their children makes it more likely that they will achieve the desired goals. In a study by Al-Shammari and Yawkey (2008), parents saw improvements in their children's academic achievements when participating in their programs.

There was a statistically significant positive correlation (at the significance level of 0.05) between teachers' communication with parents of students with ASD and their performance levels. It turned out that communication between teachers and parents of students with ASD greatly affects these students' progress. The same results were mentioned in a study by Azad et al. (2021), which indicated that parents and teachers noticed an improvement in children's results after participating in the Partners in School program. Changes in parent-teacher contact were related to variations in the outcomes of children. This emphasizes the significance of communication in family-school collaboration discussions.

The results of Syriopoulou-Delli et al.'s (2016) study showed that most teachers and parents consider communication and collaboration between teachers and parents to be critical. Cooperation contributes positively to improving children's skills. Al-Sayari's study (2020) mentioned a correlation between parents'

communication methods, teachers' learning difficulties, and the child's performance level. Khairallah's (2015) study contended that effective communication between teachers and parents of students with disabilities helps facilitate the child's progress and follow-up conversations.

There were no statistically significant differences among the respondents regarding communication with parents with ASD. The study results agreed with those of Al-Qahtani's (2016) study that the teacher's gender does not play an important role in their relationship with the family. In addition, the study confirmed that there were no differences based on years of experience or workplace (e.g., integration institutes or programs).

6. Conclusions

This study investigated the communication between teachers and parents of students with ASD and its relationship with the level of the IEP. The results indicate that the teachers in the study sample communicated with parents of students with ASD to a large extent. The use of the homework book was found to be the most common method of communication. However, the teachers rated the parents' involvement in the creation, implementation, and development of the IEP as average. The study found a positive correlation between the reality of teachers' communication with parents of students with ASD and the level of the student in the IEP, indicating that communication significantly affects student progress. The study also found gender differences in attitudes towards the level of the student in the IEP, with female teachers having more positive attitudes. It is recommended that schools provide training and support for teachers to enhance their communication skills and involve parents more actively in the development and implementation of the IEP.

Acknowledgements

The researchers would like to thank King Faisal University's Deanship of Scientific Research for providing the research fund and for publishing their research (Grant No. 3664).

7. References

- Al-Ghunaimi, I. (2017). *Educational programs for students with autism*. Zahra House.
- Aljafari, R. (2019). *The perceptions of elementary school teachers about using e-mail as method of communication with parents for children with autism spectrum disorder (ASD) in Saudi Arabia* [Doctoral dissertation]. Saint Louis University.
- Al-Jalamdah, F. (2015). *Measurement and diagnosis of autism spectrum disorders*. Al Masirah House.
- Al-Khatib, J., & Al-Hadidi, M. (2009). *Curricula and teaching methods in special education*. House of Thought.
- Al-Osaimi, F. (2019). The extent of family participation with the work team in the individual educational plan for students with hearing disabilities in Riyadh. *International Journal of Educational and Psychological Sciences*, 6(25), 12-42.
- Al-Qahtani, M. (2016). Barriers to communication between teachers and parents of children with autism spectrum disorder. *Specialized International Educational Journal*, 5(5), 536-566.
- Al-Rashidi, I. (2017). *Special education*. Hurricane House.

- Al-Sayari, M. (2020). Methods of communication of parents with learning difficulties and its relation to the level of the child in the individual educational program from the point of view of teachers in the kindergartens of the Royal Commission in Jubail Industrial City. *Palestine University Journal of Research and Studies*, 10 (3), 297-320.
- Al-Shammari, Z., & Yawkey, T. (2008). Extent of parental involvement in improving the students' levels in special education programs in Kuwait. *Journal of Instructional Psychology*, 35(2), 140-150. http://www.projectinnovation.biz/jip_2006.html
- Al-Zaraa, N., Abu Sukkar, O., Al-Hashem, A., & Al-Husseini, A. (2022). Autism spectrum disorder. In: A. Al-Jughiman, & O. Abu Sukkar (Eds.), *The comprehensive encyclopedia of disability: Widespread disabilities* (pp. 13-127). King Salman Center for Disability Research.
- Azad, G., Kim, M., Marcus, S., Mandell, D., & Sheridan, S. (2016). Parent-teacher communication about children with ASD: An examination of collaborative problem solving. *Psychology in the Schools*, 53(10), 1071-1084. <http://dx.doi.org/10.1002/pits.21976>
- Azad, G., Marcus, S., & Mandell, D. (2021). Partners in school: Optimizing communication between parents and teachers of children with autism spectrum disorder. *Journal of Educational & Psychological Consultation*, 31(4), 438-462. <http://dx.doi.org/10.1080/10474412.2020.1830100>
- Azad, G., Wolk, C., & Mandell, D. (2018). Ideal interactions: Perspectives of parents and teachers of children with autism spectrum disorder. *School Community Journal*, 28(2), 63-84. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7958697/pdf/nihms-1676393.pdf>
- Azeem, M., Imran, N., & Khawaja, I. (2016). Autism spectrum disorder: An update. *Psychiatric Annals*, 46(1), 58-62. <http://dx.doi.org/10.3928/00485713-20151202-01>
- Berg, E. (2021). *Meeting a school as a parent: Stories of meetings and relationships*. urn:nbn:se:mau:diva-40631
- Bltaji, L. (2016). *Individual educational program for students with special needs*. House of Knowledge.
- Boutot, E. (2017). *Autism spectrum disorders: Foundations, characteristics, and effective strategies* (2nd ed.). Pearson.
- Cook, R., Klein, M., & Chen, D. (2019). *Adapting early childhood curricula for children with disabilities and special needs* (10th ed.). Pearson.
- Croft, K. (2020). *Twenty-first century parent-teacher communication: An explanatory case study in a California title I school district* [Unpublished Doctoral dissertation]. Northcentral University.
- Dunham, H. (2016). *The importance of parent-teacher communication*. <https://www.mathletics.com/blog/news/importance-parent-teacher-communication/>
- Garbacz, S., McIntyre, L., & Santiago, R. (2016). Family involvement and parent-teacher relationships for students with autism spectrum disorders. *School Psychology Quarterly*, 31(4), 478-490. <http://dx.doi.org/10.1037/spq0000157>
- Goldman, S., & Mello, M. (2020). Social validity of a school-home note intervention for students with ASDs: Independent stakeholder perspectives. *DADD Online Journal*, 7(1), 65-78. <http://www.daddcec.com/dadd-online-journal.html>
- Goldman, S., Sanderson, K., Lloyd, B., & Barton, E. (2019). Effects of school-home communication with parent-implemented reinforcement on off-task behavior for students with ASD. *Intellectual and Developmental Disabilities*, 57(2), 95-111. <http://dx.doi.org/10.1352/1934-9556-57.2.95>

- Hussein, A. (2013). *Abnormal curricula and the foundations of their construction*. Publishing House.
- Ismail, M. (2019). *Educational and behavioral intervention for children with developmental disorders*. House of Messila.
- Jivanjee, P., Kruzich, J., Friesen, B., & Robinson, A. (2007). Family perceptions of participation in educational planning for children receiving mental health services. *School Social Work Journal*, 32(1), 75-92. <http://lyceumbooks.com/sswjournal.htm>
- Khairallah, A. (2015). The effectiveness of communication methods (meetings, short messages, e-mail) between teachers with intellectual disability and parents of students with intellectual disability. *Journal of Educational and Psychological Sciences*, 3(4), 85-143.
- Kosaretskii, S., & Chernyshova, D. (2013). Electronic communication between the school and the home. *Russian Education and Society*, 55(10), 81-89. <http://dx.doi.org/10.2753/RES1060-9393551006>
- LaBarbera, R. (2017). A comparison of teacher and caregiver perspectives of collaboration in the education of students with ASDs. *Teacher Education Quarterly*, 44(3), 35-56. <https://files.eric.ed.gov/fulltext/EJ1149367.pdf>
- LaRocque, M., Kleiman, I., & Darling, S. (2011). Parental involvement: The missing link in school achievement. *Preventing School Failure*, 55(3), 115-122. <https://doi.org/10.1080/10459880903472876>
- Lemmer, E., & Van Wyk, N. (2004). Schools reaching out: Comprehensive parent involvement in South African primary schools. *Africa Education Review*, 1(2), 259-278. <https://doi.org/10.1080/18146620408566284>
- Means, J. (2021). *The Perception of collaboration between parents and teachers of students with special needs regarding the individualized education programs (IEPs)* [Unpublished Doctoral dissertation]. Gwynedd Mercy University.
- Mohammed, S., & Ahmed, I. (2019). *Behavioral manifestations of autistic children and methods of treatment*. House of Knowledge and Faith.
- Muhidat, M. (2016). The level of priority of information that parents of children with disabilities need and their preferred modes of communication to obtain. *Journal of Educational Sciences*, (26), 202-239.
- Natale, K., & Lubniewski, K. (2018). Use of communication and technology among educational professionals and families. *International Electronic Journal of Elementary Education*, 10(3), 377-384. <http://dx.doi.org/10.26822/iejee.2018336196>
- Nickels, P. (2010). *Educational interventions for children with autism spectrum disorders: Perceptions of parents and teachers in a Northeast Tennessee school system* [Unpublished Doctoral dissertation]. East Tennessee State University.
- Obeid, M. (2010). *Special education programs, curricula and teaching methods*. Safa House.
- Patton, S. (2019). *Parents' and teachers' perceptions of parental involvement* [Unpublished Doctoral dissertation]. Walden University.
- Saudi Ministry of Education. (2015). *Organizational guide for special education*. Saudi Ministry of Education.
- Saudi Ministry of Education. (2017). *Organizational guide for the school's partnership with the family and the community*. Saudi Ministry of Education.
- Slade, N., Eisenhower, A., Carter, A., & Blacher, J. (2018). Satisfaction with individualized education programs among parents of young children with ASD. *Exceptional Children*, 84(3), 242-260. <http://dx.doi.org/10.1177/0014402917742923>
- Smith, S., Burdette, P., Cheatham, G., & Harvey, S. (2016). Parental role and support for online learning of students with disabilities: A paradigm shift. *Journal of Special*

- Education Leadership*, 29(2), 101-112.
<https://files.eric.ed.gov/fulltext/EJ1118423.pdf>
- Spencer, T. (2020). *What strategies do parents use to accomplish a successful IEP?* [Unpublished Doctoral dissertation]. Trevecca Nazarene University.
- Stanley, A., Beamish, W., & Bryer, F. (2005). Communication between home and school about children with autistic spectrum disorder in primary schools. *Stimulating the 'Action' as Participants in Participatory Research*, 3, 113-122. <https://research-repository.griffith.edu.au/bitstream/handle/10072/8642/29484.pdf?sequence=2&isAllowed=y>
- Syriopoulou-Delli, C., Cassimos, D., & Polychronopoulou, S. (2016). Collaboration between teachers and parents of children with ASD on issues of education. *Research in Developmental Disabilities*, 55, 330-345. <http://dx.doi.org/10.1016/j.ridd.2016.04.011>
- Tucker, V., & Schwartz, I. (2013). Parents' perspectives of collaboration with school professionals: barriers and facilitators to successful partnerships in planning for students with ASD. *School Mental Health*, 5, 3-14. <https://doi.org/10.1007/s12310-012-9102-0>
- Zablotsky, B., Boswell, K., & Smith, C. (2012). An evaluation of school involvement and satisfaction of parents of children with autism spectrum disorders. *American Journal on Intellectual and Developmental Disabilities*, 117(4), 316-30. <https://doi.org/10.1352/1944-7558-117.4.316>