

Teachers' awareness and perceptions of inclusive education for learners with autism: Implications for the campaign against stigma

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Abstract

While the number of children with autism spectrum disorders (ASD) enrolled in conventional schools continues to rise, teachers' inadequate understanding of autism is a major educational concern. How teachers' lack of knowledge affects their perspectives regarding the inclusion of autistic learners in the regular classroom has been under-researched. This study is cross-sectional research aimed at investigating how knowledgeable educators are about autism and what they think about providing inclusive education to autistic students. A sample size of 1632 elementary school educators from Southeast Nigeria were used for the study. Two separate questionnaires were used for data collection: the Autism Inclusion Questionnaire for Teachers (AIQT) and the Autism Awareness Questionnaire (AAQ), while Regression Analyses and Descriptive Statistics were used to analyze the data. The findings showed a low level of understanding of autism and a general unfavorable impression of teachers regarding the inclusion of autistic students in mainstream classrooms. It was also evident that educators who displayed a high level of awareness had more tendency to express positive expectations for their students' performance and to believe that inclusive education for students with autism is vital and advantageous. The findings of the study

are significant in providing the information needed to support the urgent need for an awareness campaign in the study area - primary schools.

Keywords: Teachers, autism awareness, autism perceptions, inclusive education, learners with autism, disability, stigma

Introduction

Like other nations, Nigeria is a signatory to the United Nations' 2030 Millennium Development Goals (MDGs), published in 2015. The MDGs stipulate that all school-age children, regardless of ability/disability, should have access to a high-quality, functional, and efficient education. The Discrimination against Persons with Disabilities (Prohibition) Act (2018), which the Nigerian government signed into law in January 2019, attests to Nigeria's progress towards inclusive education as well as its zero-tolerance policy for exclusion or discrimination based on disability. However, when it comes to advocacy and support for education, kids with autism spectrum disorders (ASD) are among the most marginalized and excluded. A range of conditions known as autism is frequently characterized by repetitive behaviors, limited interests, and trouble interacting and communicating with others (Samadi & McConkey, 2011).

Children with autism are three times more prone to miss school and/or experience stigma than children who have other disabilities, such as hearing loss, visual impairment, and so on (Alshaigi, Albraheem, Alsaleem, Zakaria, Jobeir, & Aldhalaan, 2020; Brede, Remington, Kenny, Warren, & Pellicano, 2017; Oduyemi, Okafor, Eze, Akodu, & Roberts, 2021). Furthermore, a higher proportion of the vulnerable population is made up of children with autism, while between 5 and 7 million school-age children with disabilities in Nigeria face discrimination and are denied access to basic education opportunities (UNESCO, 2017; Bakare, Taiwo, Bello-Mojeed, & Munir, 2019). Despite the growing movement toward inclusive education (Iwuamadi et al., 2016), children with autism are still likely to suffer exclusion due to the stigma and lack of awareness surrounding their condition.

Due to societal stigma and discrimination in connection to their disability, these

children, especially in Nigeria, are vulnerable and have fewer opportunities for employment, healthcare, and education (Bakare et al., 2019). For example, according to existing research, most Nigerian children with autism are somewhat confined, chained, or locked up at home and are neither enrolled nor allowed to participate in school activities (Audu & Egbochuko, 2010). Furthermore, due to the stigma of parents and teachers, and the general public's lack of awareness of the disability (Audu & Egbochuko, 2010), such children are rarely accepted to associate with members of the community (Bakare et al., 2019). Many Parents, educators, and the rural community are unaware of the prognosis of the condition among students (Abubakar, Ssewanyana, & Newton, 2016), which leads to stigma and exclusion. Because autism is becoming more common in Nigeria, the inclusion of kids with the condition has, therefore, become a top priority for stakeholders (Bakare, et al., 2019). In Nigeria, however, there are indications that teachers at the primary school level have remained unaware of the problem of autism. Further, some unique prejudices found among teachers in Nigeria may be informed by the current social stigma and low awareness in the country, which

could increase the risk of school exclusion of children (Peterson, Rubie-Davies, Osborne, & Sibley, 2016).

Full inclusive education, according to extant literature, should include the acceptance of autistic learners by teachers and fellow students, involvement in the psychological, social, and academic aspects of school life, general improvements in emotional and social functioning, and the prevention of all forms of discrimination (Gómez-Marí, Sanz-Cervera, & Tárraga-Mínguez, 2022). The teacher-related dimensions have the highest weight among all of these (Gómez-Marí, et al., 2022). Therefore, the teacher plays a crucial role in the creation of policies and their implementation for the inclusion of students with autism (Petersson-Bloom & Holmqvist, 2022). In this way, effective inclusive education will depend on teachers' understanding of autism as well as their opinions regarding inclusive education for students with autism.

Given that misinformation about the signs and symptoms or ignorance of the manifestations of autism could impede inclusive education, teachers' awareness is essential for inclusive education for children with ASD (Petersson-Bloom, et al., 2022; Gómez-Marí, et al., 2022).

Similarly, the way educators and the educational community interact with students with autism in the classroom can be influenced by their opinions or perceptions of inclusive education for learners with autism (Carrington, Berthelsen, Nickerson, Nicholson, Walker, & Meldrum, 2016; Solís, Pedrosa, & Mateos-Fernández, 2019).

Therefore, it is extremely concerning when studies show that stigmatization of students with autism occurs frequently in regular classroom environments (Lin, Peng, Hsiao, Chou, & Yen, 2020).

Combating stigma and improving inclusion in schools will need educators who are both supportive of integrating students with autism into the classroom and aware of the educational challenges that come with it. The purpose of this study is to determine the degree of autism awareness and the perception of inclusion among primary school teachers in Nigeria. This is with the goal of finding out how primary school teachers perceive and understand the inclusion of students with autism in the regular classroom environment. The significance of the study is to offer an idea of a school-based autism education initiative that will give teachers the skills and knowledge they need; lessen teacher stigma and improve their ability to

support autistic students; examine policies and support inclusive teaching and learning practices for autistic students. The study, therefore, has practical implications for stakeholders, including policymakers and educational practitioners. For instance, the policymakers can draw from the outcomes of the current research to develop a framework for awareness and training for the inclusion of autistic children in mainstream schools.

Statement of the problem

In Nigeria, social stigma, educational exclusion, and low awareness are the main issues that affect autistic children and their families. The way autism is generally managed in Nigeria has attracted professional criticism. Additionally, in southeastern Nigeria, there is a low knowledge of the signs and educational impediments associated with autism. The lack of awareness and some negative attitudes held by parents, educators, and society at large regarding children with autism often hinder the efforts to advocate for and support their development. According to extant studies, addressing the educational needs of students with ASD requires a comprehensive approach that considers every facet of the educational system, including the curriculum, teaching

resources, classroom and school environments, and instructional strategies (Barson, 2010).

Inaccurate knowledge of ASD or negative stereotypes held by teachers could put students' needs and abilities at risk of receiving an education that is not meeting their needs. The performance of the child may suffer as a result. However, it has been shown that teachers and students alike benefit when they are aware of autism spectrum disorder (ASD) (Syriopoulou-Delli et al, 2012; Engstrand and Roll-Pettersson, 2014). There has not been any research done in Southeast Nigeria to the best of our knowledge, on promoting inclusion in schools for kids with autism, or raising of awareness on the issue. This pilot study investigates teachers' awareness and perception of inclusive education for learners with autism to plan a program aimed at decreasing stigma and boosting educational inclusion among kids in primary schools in Southeast Nigeria.

Teachers' knowledge and perceptions of inclusive education for students with autism are crucial for the successful implementation of inclusive practices. While existing research indicates that teachers generally support the concept of inclusion, many of them report challenges

in effectively managing autistic students within general education classrooms due to lack of knowledge, inadequate training, and insufficient resources (Rao et al., 2020). Furthermore, teacher perceptions are often shaped by personal experiences and biases, which may contribute to a reluctance to fully embracing inclusive practices (Perry & Grace, 2022). Despite this, there are limited studies on how teacher attitudes evolve based on level of awareness. Addressing these gaps is essential to create more effective teacher training programs and support systems, and to ultimately improve the inclusion and educational outcomes of students with autism in a general educational setting.

Teachers' perception of inclusive education for learners with autism

Implementing educational initiatives is primarily the responsibility of teachers, who contribute significantly to these processes with their opinions. To maximize the presence, involvement, and learning capacity of students with autism within the mainstream school system, more inclusive policies have been made in recent decades. Teachers' attitudes to integrating students with ASD have a big impact on how well inclusive education works for those kids. The way that students with ASD interact

with fellow students in the classroom and other members of the educational community can be greatly influenced by teachers' attitudes towards their inclusion (Mazumder & Thompson-Hodgetts, 2019).

Positive perspectives on inclusion are essential as teachers' pedagogical outlook promotes inclusive practices. Conversely, negative attitudes regarding the integration of students with ASD and low standards of academic performance could operate as a roadblock to integration and impede the students' social, intellectual, and personal development (Lindner, Schwab, Emara, & Avramidis, 2023).

According to extant research, the effectiveness of inclusion is significantly influenced by teachers' attitudes toward disability and their willingness to be inclusive in their practices (Segall & Campbell, 2012). Negative perceptions of students with disabilities and/or inclusive practices may have a detrimental impact on teachers' confidence and willingness to accommodate students with disabilities into classroom activities.

According to a review of a qualitative study by Mazumder and Thompson-Hodgetts (2019), one of the factors contributing to autistic students' vulnerability to stigma and harassment from teachers is the teachers' social

perceptions. Teachers' negative perceptions of students with autism can be attributed to misconceptions and misattributions stemming from ignorance of autism manifestations (Lin, Peng, Hsiao, Chou, & Yen, 2020).

Significant research has been conducted on teachers' perceptions of inclusive education for students with autism, which reveals mixed attitudes toward the implementation of inclusive practices. Studies consistently indicate that teachers generally recognize the importance of inclusion but face significant challenges in effectively supporting students with autism (Avramidis & Norwich, 2002; Rao et al., 2020). Teachers' perceptions are influenced by their level of awareness and training on autism, with those receiving specific professional development showing more positive attitudes and confidence in managing inclusive classrooms (Katz & Mirenda, 2002; Perry & Grace, 2022). Additionally, teachers from poor localities acknowledge the need for additional support structures, resources, and training to ensure the success of inclusion (Baker et al., 2018). Research also highlights that positive teacher perceptions are correlated with better social integration and improved student

outcomes, although these benefits are not always realized due to the lack of adequate resources (Solomon et al., 2021).

Despite the earlier findings, there are significant gaps in the research on teachers' perceptions of inclusive education for autistic students. Most studies provide a snapshot of teacher attitudes but lack longitudinal data that tracks how perceptions evolve and ongoing exposure to inclusive practices and autism-specific professional development. More research is needed on the role of cultural, regional, and institutional factors in shaping teachers' attitudes toward inclusion, as these aspects are often overlooked (Sharma et al., 2012). Additionally, there is a limited exploration of the personal experiences and backgrounds of teachers, to provide deeper insights into how these factors influence their openness to inclusive education for autistic students (Harrower & Dunlap, 2001). Research on the effectiveness of anti-stigma campaigns in changing teachers' perceptions is also scarce, despite the known prevalence of stigma in educational settings (Siperstein et al., 2017). Finally, there is a need for studies that examine how autism knowledge among teachers and other support staff impacts perceptions and

outcomes in inclusive classrooms (Solomon et al., 2021).

The case of Nigeria and the current study

Article 24 of the United Nations (UN) Convention on the Rights of Persons with Disabilities states that people with disabilities should have access to the assistance required by them to receive a quality education. Nigeria is a signatory to this agreement. Goal 4.5 of the United Nations' MDGs 2030 calls for equal access to all levels of education and vocational training for vulnerable individuals, including those with disabilities (UN General Assembly, 2015). This policy statement has sparked research and practices related to inclusive education in Nigeria over the years. It supported the Nigerian Educational Research and Development Council's (2004) concept of Universal Basic Education (UBE) and its related policy guidelines. According to the UBE, many disabled students, including those with autism, are to be enrolled in inclusive primary schools (Imam, 2012). The policy-to-practice gap, however, is a significant issue in the Nigerian context (Aihie & Uwaoluetan, 2022; Odunsi et al., 2017). Studies have shown that there is a gap between the education policies and classroom practices (Adebisi et al. 2014; Tunji-Ajayi, 2019), but what causes this

gap still needs elucidation. Poor teacher training, unfavorable attitudes toward students with autism, and a lack of funding or support for educators are a few of the obstacles that have already been noted in existing studies (Olufunke, 2018; Sijuola, 2022; Yada et al, 2018).

Furthermore, most children and adolescents in Nigeria who have been diagnosed with autism have non-verbal manifestations which frequently co-occur with other intellectual disabilities (Bakare and Munir, 2011b; Lagunju et al, 2014). This often makes inclusion issues more difficult to handle, endangers teachers' comprehension, and creates unfavorable perceptions. This suggests that the factors that seriously jeopardize inclusive education in Nigeria may be teachers' awareness of and prejudices against it. There is a dearth of research in this area of teachers' awareness and students' perceptions of autism. The few studies available, in literature with a range of findings, were carried out outside the area of the current research. For example, Aihie and Uwaoluetan (2022) discovered a high degree of understanding about ASD and favorable sentiments regarding the integration of students with ASD in regular education classes in their study. On the other hand, Ekom-Idorenyin (2020) investigated how teachers felt

about students with autism in primary schools in Rivers State, Nigeria, and found that teachers had a positive attitude toward these students. Odunsi (2029) also investigated teachers' knowledge of students with autism in Lagos State, and they discovered that 31% of teachers in rural areas and 46% of teachers in urban areas generally showed accurate knowledge.

Paul and Gabriel-Brisibe (2015) investigated teachers' awareness of autism in Bayelsa State's primary schools and found that the awareness was low. Until now, no research has provided information on primary and secondary school educators' knowledge of autism and perceptions about inclusive education for students with autism in Southeast Nigeria. Furthermore, to improve their capacity to manage mainstream education for students with autism, recent studies—which primarily focused on teachers' awareness in Nigeria—have employed a variety of instruments to assess primary school teachers' knowledge and comprehension of autism. To the best of our knowledge, no research has looked into how knowledgeable teachers are about autism and how that knowledge might affect how they view inclusive education for students on the spectrum.

This study therefore seeks to answer the following research questions:

1. What is the level of awareness among primary school teachers of childhood autism in Southeast Nigeria?
2. What are teachers' perceptions about inclusive education for students with autism?
3. Does teachers' awareness of autism predict their view about inclusive education?

Methods

Design of the study

This is a cross-sectional study which utilizes a quantitative approach. A quantitative study is one that capitalizes on numerical data to draw conclusions about the phenomenon under investigation (Mohajan, 2020). Specifically, descriptive survey research design was used to assess primary school teachers' level of awareness about children with autism, and their perception regarding inclusive education for such children. Questionnaires were the research tools used for data collection.

Participants and sampling

The population is comprised of all the primary school teachers in Southeast,

Nigeria. Three (3) out of the 5 states in the Southeast were drawn through a simple-random sampling technique. The sample for the study consists of 1730 primary school teachers who were randomly selected from three states in southeastern Nigeria. The participants were 78.3% females (1354), and 21.7% males (376). We only considered fully completed questionnaires for the analysis. N = 67 teachers did not complete the survey but filled it out partly. All other questionnaires fully completed were included in the statistical analysis. Consequently, the effective sample consisted of N = 1667 primary school teachers. Most of the teachers (67%) reported having over 5 years of teaching experience in primary school.

Data collection tools

Quantitative data were collected using 3 researcher-developed/adapted and validated questionnaire instruments. The first part of the questionnaire contains the demographic data of the participant (age, position, education level, and teaching experience) and a question about previous contact or experiences with autistic children. The second part is the Autism Awareness Questionnaire (AAQ) while the third part is the Autism Inclusion Questionnaire for Teachers (AIQT).

Autism Awareness Questionnaire (AAQ): Teachers' awareness was assessed using an AAQ adapted from Arif, Niazy, Hassan and Ahmed (2013), Alobaid and Almogbel (2022) and Igwe, Bakare, Agomoh, Onyeama and Okonkwo, (2010). The AAQ contains 25 items proposed to measure teachers' knowledge of Autism. The questionnaire mainly assesses teachers' level of awareness on the general information about the characteristics of children with Autism, and how they behave and learn. The questions under this section were presented as True/False statements in the original version; however, the number of questions were extended to four (4) so that the respondents will have more responses to reveal their level of knowledge. Hence, the responses were prepared on a scale of 4 values from which the teachers could easily select a response instead of guessing. The responses were coded as: Very True = 4; True = 3; Not sure = 2, and False = 1. For each item in which a respondent has a mean score between 2.5 to 4 points, it means the respondent is aware. A mean score between 1 and 2.4 points shows not aware or poor level of knowledge. For the total awareness score, respondents can score a maximum of 100 and a minimum of 25. A high level of

awareness is depicted by an average score of 50 and above, while less than 50 was regarded as a low level of awareness. This questionnaire was passed through face validation by three experts to assess its useability in the study area. It also underwent a trial testing among general education teachers in Nigeria. Data generated from the trial testing was subjected to Crombach Alpha statistics to determine internal consistency. The statistics gave a reliability index score of .79, showing that the instrument was usable in the cultural context of the study area.

Autism Inclusion Questionnaire for Teachers (AIQT): This tool was used to gauge the opinions of educators regarding the inclusion of autistic children in mainstream classrooms. It was adapted from the "My Thinking about Inclusion" questionnaire by Stoiber, Gettinger, and Goetz (1998) which was used to gauge teachers' opinions about the inclusion of students with disabilities generally. There are twenty-eight questions on the inclusion of kids with special education needs in this tool. We specifically modified it to include students with autism in our study.

The questions in the AIQT were arranged along three main axes, namely the

benefits of co-education (11 questions), teachers' basic perceptions of the idea that autistic children have a right to an education alongside their typically developing peers (12 questions), and teachers' expectations of autistic students and their impact on teaching and inclusion practice (5 questions). These axes foreground how inclusion affects classroom dynamics and the practice of teaching in general. To collect data with the above questions, participants were asked to indicate their degree of agreement on a Likert scale of 5 points (0=strongly agree, 1=agree, 2=undecided, 3=disagree, 4=strongly disagree). This questionnaire was subjected to face validation by three experts from the University of Nigeria, Nsukka and tested for internal consistency using Crombach Alpha statistics. After the trial testing, the statistics gave a reliability coefficient score of .79, showing that the instrument was usable in the study area.

Procedure: Between February and April of 2023, we selected teachers employed in primary schools across three states in southeast Nigeria. We distributed flyers about our ASD investigation in the three states to government primary schools before the data collection. To increase the number of participants, we first shared

information about the study with primary school teachers through staff meetings. Later, we added e-mail correspondence to that. We made sure we visited both rural and urban government primary schools. By diversifying our study sample, we aimed to improve the generalizability of our findings. Our inclusion criteria, which are as follows, were made explicit: I) Primary school teachers were included if they worked in primary schools in any of the three states sampled, with at least one child with autism in the class handled within the last three years.

Teachers were asked to fill out the copies of questionnaire after reading through the goals and significance of the research. Additionally, participation in the study was entirely voluntary, and all personal information, such as respondent or school name were anonymized. The data collection was done in a multimodal manner; hence, we gathered information via online channels like emails and WhatsApp in addition to in-person interactions. We visited schools, made one-on-one calls, and sent reminder emails to guarantee a high rate of questionnaire returns. Except for those that were severely damaged or incomplete, all of the data that were gathered were coded using SPSS.

Data analysis

All data analyses were conducted using the SPSS (version 24.00) software with a level of significance set at ≤ 0.05 .

Cronbach's alpha was used to calculate the internal consistencies of the questionnaires, while Descriptive Statistics (mean and standard deviation) were used to compute the variable scores. Further, standardized path scores of parameter estimates were interpreted as regression coefficients in the regression analysis. A benchmark was set for high and low levels of awareness; positive and

negative perceptions after entering the data in ascending or descending order based on the skewness of items. Data are presented on tables.

Results and discussion

The result of this study is presented in tables and figures based on the research questions. The first research question "What is the level of awareness about childhood autism among primary school teachers in South-east Nigeria?" is answered in Table 1 below.

Table 1: Descriptive Statistics showing the Respondents' mean scores in AAQ

	N	Mean	SD
Autism disorder can be diagnosed through behavioral observation	1645	1.41	1.21
Behavioral intervention is considered the most effective treatment method of Autism	1645	2.27	1.20
Children with Autism demonstrate stereotypical behaviors like fluttering	1645	2.23	1.91
Children with Autism do not make any visual communication during a conversation with others	1645	1.28	1.21
Children with Autism usually manifest special abilities like drawing and facts and figures remembering	1645	2.27	1.10
An autistic child maintains minimal eye contact with others	1645	2.33	1.21
An autistic child throws frequent bouts of anger	1645	1.29	.86
Children with Autism behave better only in organized educational environments	1645	1.24	1.21
Autistic children prefer routine activities	1645	1.22	1.21
Autism disorder is usually diagnosed during the first three years of the child's age	1645	1.13	.91
Children with Autism frequently repeat the talk they hear	1645	2.75	1.21
General interests of an autistic child are restricted	1645	1.27	1.20
Some autistic children have high or low sensitivity of visual, auditory, tactile, or olfactory stimuli, inconsistency in motor skills	1645	1.06	1.16
Behavioral patterns in children with Autism are similar	1645	2.73	1.19
Social smile is usually absent in a child with Autism	1645	2.20	1.17

Persistent preoccupation with parts of objects	1645	1.93	1.21
An autistic child is resistant to change	1645	2.57	1.22
Children must exhibit impaired social interaction and language communication	1645	2.27	1.11
Some children with Autism demonstrate inconsistency in motor skills	1645	1.99	1.09
Most autistic children have problems with imaginary playing	1645	2.68	1.19
Most autistic children do not talk	1645	3.10	1.21
Generally, children with Autism understand the feelings and emotions of others	1645	1.03	1.21
A child with Autism appears like a deaf	1645	1.77	1.22
Children with Autism tend to be auditory learners	1645	1.37	1.22
With proper intervention, most children with autism disorder will eventually "outgrow" the disorder	1645	1.27	1.29
Grand Mean	1645	46.66	21.76

Table 1 above depicts a surprising and yet interesting result. It showed that there is generally a low level of awareness about autism among primary school teachers. From the score distribution in the table, general education teachers on average demonstrate a high level of awareness only in nine (9) out of the 25 items of the AAQ. Their mean response crossed the benchmark in item 2: Behavioral intervention is considered the most effective treatment method for Autism (2.27, 1.20); item 3, Children with Autism demonstrate stereotypical behaviors like fluttering (2.23, 1.91); item 5, Children with Autism usually manifest special abilities like drawing and facts and figures remembering (2.27, 2.10); item 6, An autistic child maintains

minimal eye contact with others (2.33, 1.21); item 11, Children with Autism frequently repeat the talk they hear (2.75); and item 14, Behavioral patterns in children with Autism are similar (2.73, 1.19). They also demonstrated considerable awareness of the item 15, measuring awareness about social smiles (2.20, 1.17); item 17, which measures awareness about resistance to change (2.57, 1.22), item 18, impaired social interaction and language communication (2.27, 1.11), item 20, problems with imaginary playing (2.68, 1.19) and item 21, speech problem (3.10, 1.21). Furthermore, as shown by the grand mean score (46.66), the average awareness score was lower than the 50 benchmark for a considerable knowledge level. In other words, out of 100, which is

the total possible mean score from the questionnaire, the teachers got only 46.66, which is quite below average, and represents only 46.66% percent of the expected awareness level.

These findings imply that general education instructors in the research area have a limited professional understanding of autism spectrum disorders. These results corroborate those of a different study carried out in South Asia (Ayub, Naeem, Ahmed, Srichand, Aziz, Abro, ...& Jehan, 2017), which discovered gaps in teachers' awareness and knowledge regarding autism. Our research aims to assess teachers' knowledge of autism characteristics that may hinder students' learning, particularly in inclusive learning environments. As a result, only 44.2% of the teachers in the Ayub et al.'s study understood autism to be a neurological/mental disorder. This knowledge gap may influence the teachers' perspectives on proper inclusion of these students in the classroom. The findings of Odunsi, Preece, and Garner (2017), who discovered that only 46% of urban teachers and 31% of rural teachers showed generally, an accurate knowledge of ASD, are also consistent with the results of the current study. It is likely that low teacher awareness is the cause of the subpar inclusive practices for

autistic students observed in Nigerian schools. This is because adequate knowledge of ASD has been demonstrated to increase teacher self-efficacy and confidence as well as to lower the likelihood of stress and burnout in the management of students with autism (Onyishi, 2022; Ruble et al, 2011).

According to a German study, most teachers had only a mediocre understanding of autism and shared certain common misconceptions about the condition (Wittwer, Hans, & Voss, 2023). Similarly, Gómez-Marí, Sanz-Cervera, and Tárraga-Mínguez (2021) in a systematic review study observed that teachers had inadequate knowledge about ASD. The current study, which focused on teachers in Southeastern Nigeria, confirms that teachers generally have little knowledge about autism. On the other hand, in Egor Local Government Area of Edo State, Southsouth Nigeria, Aihie and Uwaoluetan (2022) found that teachers have a high degree of understanding about ASD and positive attitudes toward the inclusion of students with ASD in regular education classrooms. Benin City where the study of Aihie, et al. was carried out differs both geographically and culturally from the present study. It is possible that the teachers have undergone enough training

prior to the study. Meanwhile, the present study represents a sociocultural and geographical difference in teachers' awareness of autism and an inter-regional comparative study.

Research Question 2: What are teachers' views about inclusive education for students with autism?

Table 2: Descriptive table showing teachers' perception based on percentage mean score in AIQT

		Frequency	Percent	Remarks
Basic View	Low Score (1.00-1.99)	1105	67.2	Negative
	High Score (2.00-4.00)	540	32.80	Positive
	Total (1.00-4.00)	1645	100.0	Total
Benefit View	Low Score (1.00-1.99)	990	60.2	Negative
	High Score (2.00-4.00)	655	39.8	Positive
	Total (1.00-4.00)	1645	100.0	Total
Expectations	Low Score (1.00-1.99)	1205	73.3	Negative
	High Score (2.00-4.00)	440	26.7	Positive
	Total (1.00-4.00)	1645	100.0	Total
Total View score	Low Score (1.00-1.99)	1100	66.9	Negative
	High Score (2.00-4.00)	545	33.1	Positive
	Total (1.00-4.00)	1645	100.0	Total

Table 2 above displays the data on teachers' perceptions of inclusive education for students with autism in three dimensions: fundamental beliefs, perspectives regarding the advantages of inclusive education, and expectations, which indicate how they view the benefits of inclusive education for

students, teachers, and parents. Lastly, the table shows the overall perception score represented as a total score. Upon examining the three subscales that measure teachers' perceptions, it is noteworthy that a greater proportion of teachers in each subscale exhibit a negative perception regarding inclusive education for students with autism in

regular schools. Regarding their perception of the basics of inclusion for students with autism as measured by the first subscale (Basic Views), 67.2% of the participants saw it negatively, while only 32% perceived it positively.

This indicates that most educators working in mainstream schools believe that teaching students with autism in the same classroom as students who are typically developing is inappropriate. This result is not surprising considering the documented cultural stigma and stereotypes about people with disabilities in general (e.g., Ibikunle & Nwokeji, 2017) and children with autism (e.g., Oduyemi, Okafor, Eze, Akodu, & Roberts, 2021). Some fundamental beliefs about children's rights can be depicted in the following statements: "It is difficult to maintain order in a classroom that contains children with autism, as children with typical abilities could influence teachers", and "Students with autism have the right to be educated in the same classroom as typically developing students". The above outlook towards inclusive education may hamper inclusive practices (Han, Scior, Avramides, & Crane, 2022; Turnock, Langley, & Jones, 2021).

The second dimension is the view on the advantages of including students with

autism. The "Benefit View" is used in Table 2 to measure this dimension. The table indicates that 39.8% of the teachers thought that including students with autism would be beneficial, while 60.2% thought otherwise. It will be difficult for the majority of teachers who do not believe it to be socially beneficial to believe that it helps children with autism develop academic skills more quickly, that it helps typically developing students accept individual differences, that it helps autistic children become more independent in their social lives, and that it helps children feel good about themselves.

Looking at this from a different angle, educators who do not think that inclusive education is worth the time and effort may agree with those who do not see the advantages of including students with autism in a natural classroom environment. According to existing studies, teachers who hold negative beliefs about the benefits of inclusive education for students with autism are more likely to exhibit stigma, unfavorable classroom behaviors, and low self-efficacy when it comes to instructing their students (Bolourian, Losh, Hamsho, Eisenhower, & Blacher, 2021).

The final aspect of the issue of teacher's perspective relates to their methods and/or expectations in the classroom. From Table 2, 73.3% of educators scored below average, their expectations and methods of integrating autistic students into regular classes. When it came to having a positive outlook on expectations for success and classroom practices, 26.7% of teachers did not meet the benchmark. Hence, the majority of the teachers believe that integrating students with autism into the regular classroom is a fruitless endeavor or has little benefits. They do not think that their methods will have a big impact on how well the autistic kids are learning or how other people in the school community perceive them.

Previous research has demonstrated that optimism and the expectation of success are closely related, and that success is rarely attained in any circumstance when optimism is low (Kleiman, Chiara, Liu, Jager-Hyman, Choi, & Alloy, 2017; Lindner, Schwab, Emara, & Avramidis, 2023). As a result, it is possible that low expectations from teachers would have a detrimental effect on inclusive education. Instructors' low expectations for integrating students with ASD seem to stem from their interactions with the students, which may involve behavioral

issues and the need to change the way the classroom was organized. It might also be linked to inadequate training for inclusion and low self-efficacy in controlling classroom behavior (Bolourian, Losh, Hamsho, Eisenhower, & Blacher, 2021). Negative perception of the capacity of students with autism reinforces lower expectations of their learning progress, lower level of teaching efficacy and negative attitudes towards their inclusion, which set limits on their participation in the class (Alkeraida, 2021).

The frequency table reveals that teachers (66.9%) generally have a negative perception for including students with autism, as indicated by the percentage response in the total view score shown in Table 2 above under the total perception score. Only 33.1% of the teachers hold a favorable opinion regarding autism inclusive in regular schools. This result is consistent with Aldosari (2022), who discovered that general education teachers had a somewhat unfavorable attitude towards the inclusion of students with disabilities. However, conflicting findings have been made in some previous research in various fields regarding the general inclusion of students with disabilities. For instance, Ayub, et al., (2017) found that majority

(73.1%) of teachers believed that special education is a helpful intervention for students with special education needs. This varies significantly from the findings of the current study which measured a more specific perspective to inclusive education.

Research on how inclusive education is perceived has not given much attention to students with autism. The earlier findings suggest that instructors' perspectives on inclusive education in general may not accurately reflect how they view education for students with autism. This might be because autism is among the most strange and complex conditions that make teaching difficult for educators. Additionally, a different finding was reported by Segall and Campbell (2012), who noted that general education teachers recognize the value of inclusion. Instructors' motivation to include autistic students in the classroom and their self-efficacy in integrating them into activities may be negatively impacted by their unfavorable opinions of inclusive practices for autistic students.

In general, the unfavorable opinion discovered in this study regarding the inclusion of autistic students might be conditioned by culture and not accurately characterize the circumstances in other contexts with distinct cultures and developmental stages. Studies conducted in developed nations, for example, typically present distinct perspectives from those of schools in developing nations. Hashmi et al. (2017) investigated Pakistani teachers' opinions regarding inclusive education and found that most of the primary school teachers who participated supported it. Accordingly, a German study by Hellmich et al. (2019) showed teachers' favorable opinions of inclusive teaching methods used in traditional elementary schools.

The outcome of the current study is therefore, subject to further investigations to identify the factors responsible for differences in teachers' perceptions of inclusive education for learners with autism in Nigeria.

Research Question 3: Does teachers' awareness of Autism predict their view about inclusive education?

Table 3: Regression table showing the links between teachers' knowledge and their perception about inclusive education of students with Autism

		B	Std. Error	Beta	T	P
1	Basic Views	(Constant)	7.390	1.021	7.240	.000
			.241	.014		
2	Benefit View	(Constant)	-.350	.058	-6.025	.000
			.383	.001		
3	Expectation	(Constant)	3.489	.459	7.603	.000
			.094	.006		
4	Total View Score	(Constant)	10.530	1.497	7.032	.000
			.72	.020		

a. Independent Variable: Awareness of Autism

Table 3 shows the regression analysis linking teachers' awareness as an independent variable with the subscale of perception of inclusion. Based on the table, teachers' level of awareness was highly linked with their perceptions of inclusive education for learners with autism and was a significant predictor of all the dimensions of this perception. .

The dimension of basic perception had $B = .24$; $\beta = .69$; $t = 17.45$; and $p = .000$. These scores indicate a high level of correlation as implied by a beta score of .69, and a predictive score B of .24, and a p -value of .000. Concerning the benefits of inclusion, teachers' awareness had significant correlation $\beta = .99$ and was a

significant predictor $B = .38$; $p = .000$. Also, awareness prediction of teachers' expectations about success showed: $B = .09$; $\beta = .64$; $t = 15.06$; and $p = .000$, while the global perception score, – total view score showed: $B = .72$; $\beta = .89$; $t = 35.39$; and $p = .000$. This outcome highlights the importance of autism awareness or knowledge among teachers.

The above results suggest that 72% of teachers who have a suitable understanding of autism in terms of cognition and learning are likely to have positive opinions about including autistic students in the classroom. A lack of understanding or interpretation of autism was linked to the belief that including

autistic students in general education would not be beneficial and that there should be little expectation of results for both the autistic students and their classmates who are typically developing. On the other hand, positive opinions regarding the advantages of inclusion for peers and children with autism, high expectations for success, and an overall positive perspective of inclusive education are linked to a thorough understanding of the condition of students with disabilities and the strengths and challenges that come with the condition.

Wittwer, Hans, and Voss (2023) found in a related study done in Germany that teachers' knowledge about autism was moderate, yet their attitude toward including autistic students was positive, indicating a negative correlation between knowledge and attitude to inclusion. Similarly, such correlations have also been linked to perception. Bolourian, Losh, Hamsho, Eisenhower, and Blacher (2021) used ranked responses to find that teachers' most salient perceptions of autism as social difficulties or fixed interests were associated with knowledge of the core symptoms of autism as well as the practice of showcasing students' talents and assigning special classroom responsibilities.

Conclusion

It seems that most educators were not well-versed in autism and were thus, opposed to providing inclusive education for kids on the spectrum. Teachers' positive attitudes toward inclusive education for students with autism were mitigated by awareness. Teachers' negative opinions of the benefits of including autistic students in the classroom were partially caused by their ignorance of the signs of autism and the learning styles of autistic students. The positive perception and expectations of teachers are essential because their pedagogical approaches can promote inclusive education. On the other hand, negative attitudes toward the inclusion of children with autism can hinder the integration of children with ASD and lead to failures in their educational, social, and personal development.

Recommendations

To address the negative impact of autistic students' exclusion in schools, it is necessary for teachers to carry out awareness campaigns to encourage students in managing their behavior and learning in inclusive environments. Therefore, if teachers are to successfully address the needs of children with ASD, they must receive training in both ASD awareness and appropriate intervention

strategies, according to previous research (Franz et al., 2017). This recommendation is supported by the findings of this study. A systemic gap that calls for multi-systemic solutions, and the challenging of the status quo by creating and putting into practice a framework that focuses on raising awareness and building a knowledge base for including autistic students in regular education classrooms is clearly depicted.

Practical implications of the Study

- The research highlights the need for policymakers to develop and mandate comprehensive professional development programmes that focus on autism awareness and inclusive teaching strategies, ensuring that teachers are well-equipped to support students with autism in general education classrooms.
- Educational practitioners, including school leaders and teachers, can benefit from implementing differentiated instructional strategies and fostering a collaborative environment with special education professionals to better meet the needs of students with autism.

- Policymakers should prioritize the allocation of resources, such as specialized training and classroom aids, to support the inclusion of students with autism, as insufficient resources constitute a key barrier to effective inclusion.
- The findings suggest that anti-stigma campaigns aimed at both teachers and the larger society can significantly improve attitudes towards autism, foster a more inclusive educational culture and reduce misconceptions about students with autism.

Limitations of the study and suggestions for further studies

The cross-sectional design used in this study provides a snapshot of teachers' perceptions at a single point in time. However, attitudes and awareness might evolve over time, especially with ongoing professional development or exposure to students with autism. Without longitudinal data, it's challenging to track how perceptions change or improve over time. Future studies could follow teachers over an extended period to observe how their awareness and perceptions of inclusive education evolve, particularly as they gain more experience or undergo

professional development programmes focused on autism.

The study relies on personal account for its data, and it is possible that teachers provided socially desirable answers or underreported challenges, leading to potential biases in the data. Teachers may feel pressured to portray themselves as supportive of inclusive education, even if their actual attitudes or practices are different. Future research could involve direct observation of teacher-student interactions in inclusive classrooms to assess how teachers' awareness and perceptions impact their day-to-day practices. This could provide a more nuanced understanding of how inclusive education is enacted in the classroom.

Autism is a spectrum, and different learners may present different variety of needs. The study might not distinguish between different types of autism, which

could limit the depth of understanding of how teachers perceive and adapt to the varying needs of learners with autism. Future studies could explore how teachers' perceptions vary based on the specific needs of learners within the autism spectrum. This would deepen the understanding of how teacher training and support might be tailored to address the diverse challenges faced by students with autism. Investigating the impact of specific anti-stigma campaigns on teachers' perceptions of autism and inclusive education would provide valuable feedback on the effectiveness of these initiatives. It could also help to identify the key components of such campaigns that resonate most with educators. More so, the current study did not compare urban versus rural teachers, or novice versus experienced educators. Future studies could explore these areas to add more insight to the topic.

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