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AWARENESS AND KNOWLEDGE OF ASD AMONG NIGERIANS: A SCOPING REVIEW

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Abstract

Knowledge and awareness of Autism Spectrum Disorder (ASD) in the Nigerian population remain low despite growing world awareness of the disorder's public health effects. Misinformation, cultural beliefs, and ineffectual transmission of evidence-based information cause delayed diagnosis, low service uptake, and entrenched stigma. The article synthesizes literature to review present levels of awareness and knowledge of ASD in selected Nigerian populations, viz, parents, teachers, medical practitioners, and the general public. The review endeavors to explore the levels of awareness and knowledge of ASD in Nigeria, to map gaps and misconceptions in knowledge, and to explore socio-cultural and systemic causes of influence on perceptions of ASD, in preparation of recommending effective measures to boost knowledge of ASD and minimize stigma. A scoping review of articles from 2000 to 2024, on PubMed, Google Scholar, Scopus, and university collections in Nigeria, was conducted. The search terms were "autism," "awareness of ASD," "knowledge," "Nigeria," and "perception of the public." Inclusion criteria were Nigerian researches that ascertained awareness or levels of knowledge of ASD in any populace. Non-empirical articles, external researches, and articles whose research methodology wasn't clearly defined were excluded. Data were qualitatively analyzed and synthesized in themes. The results indicate overall low to moderate levels of awareness, but large gaps between individuals in urban and remote communities. Medical practitioners and teachers had relatively higher awareness but lacked profuse knowledge of diagnostic criteria and evidence-informed treatment. Cultural misconceptions, such as beliefs in ASD's spiritual causes, were prevalent in the general public. Inadequate media coverage, teacher training, and weak integration of neurodevelopmental disorders in the curriculum in schools and schools of nursing and teaching limited transmission of knowledge. There must be increased awareness of ASD in Nigeria, and it must be conducted in culturally safe, community-centered educational programs, integration of ASD content in curricula of medical and teacher training, and strategic use of mass and social media to influence knowledge. Multi-stakeholder collaboration of the government, civil society, and professional bodies must be undertaken to close knowledge gaps and weaken stigma, as a step to ensure easy and early detection, timely treatment, and favorable outcomes of individuals living with ASD.

Keywords: Knowledge, Awareness, ASD, Nigeria

1. Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder of significant complexity, characterized as persistent social communication and interaction impairments, in conjunction with limited, repetitive patterns of behavior, interests, or activities. Globally, WHO (2022) estimates that, in one out of every 100 children, ASD exists, but prevalence rates range, based on disparities in diagnostic methods, reporting, and beliefs (WHO, 2022). It has been twenty years since knowledge of ASD has increased significantly across the world, primarily due to advocacy, enhanced research productivity, and method refinement of detection at an early age (Lord et al., 2020). In most of the low- and middle-income countries (LMICs) such as Nigeria, however, knowledge of ASD at public and professional levels remains low, impacting on timely diagnosis and access to intervention services (Franz et al., 2017).

Nigerian awareness of ASD is determined through a dynamic interplay of cultural beliefs, school experience, and the robustness of the health system. The urban capitals of Nigeria, including Lagos, Abuja, and Port Harcourt, have superior information on neurodevelopmental disorders due to higher levels of schooling, increased access to health centers, and higher advocacy groups (Bakare et al., 2009). In contrast, rural communities hold traditional interpretations of child disorders, accusing ASD signs of supernatural causes such as witchcraft or divine retribution (Odejide et al., 2019). Such cultural interpretations not only lead to delayed helping but also influence the nature of treatment families demand, in preference to spiritual or indigenous explanations over evidence-informed treatment (Olusanya et al., 2021). Professional and teacher awareness levels, while overall higher in comparison to the general population, remain uneven. Significant research has found that, whereas professionals at large can recognize broad presentations of ASD, fewer recognize diagnostic features, red flags in the preschool age range, or referral protocols (Igwe et al., 2011). Such disparities often persist alongside limited coverage of neurodevelopmental disorders in professional training programs, such that opportunities for initial referral and treatment in later life fall through the gaps (Obeid et al., 2020). Teachers, often uniquely positioned as first to view signs of developmental vulnerabilities, can be incorrect in interpreting ASD-associated behaviors as deliberate disobedience or lack of learning ability, such that referral and support remain pending (Ofovwe et al., 2018).

Mass media play an expanding role in shaping public attitudes to ASD in Nigeria, but consistency of reach and accuracy remains patchy. While there has been a modest rise in coverage of ASD in national newspapers, on the radio, and on television, information remains piecemeal and fails to provide the depth needed to challenge long-held myth (Mitter et al., 2019). Social media offers new opportunities for awareness-raising, especially in youth groups, but the absence of centralized, evidence-informed messaging risks the propagation of misinformation (Ani et al., 2017). In the face of such challenges, there remains a pressing need for harmonized, culturally sensitive public education campaigns which, as well as awareness-raising, combat misconception and allow communities to access timely, evidence-informed medical attention. Awareness and knowledge of ASD in Nigeria are influenced by intersecting cultural, educational, and systemic influences. If there are not specific, targeted efforts to close knowledge gaps among the general public, educators, and professionals in the field of healthcare, then a large segment of children with ASD will remain subjected to delayed diagnosis, restricted access to intervention, and preventable

stigma. The current manuscript undertakes to synthesize existing evidence relating to awareness and knowledge levels of ASD in Nigeria, including main gaps and recommending measures to build the capacity of communities and professionals for early detection and effective intervention.

Statement of the Problem

Despite growing world-wide awareness of Autism Spectrum Disorder, levels of awareness and knowledge in Nigeria remain low in the general public, in medical and nursing professionals, and in educationists. Available research finds that knowledge of ASD in the general public tends to be shrouded in cultural misconceptions, and symptoms are commonly interpreted as having supernatural or moral explanations, rather than identified as characteristic of a neurodevelopmental condition (Odejide et al., 2019; Olusanya et al., 2021). Such misconceptions serve to perpetuate stigma but, at least as much, dissuade families from utilizing formal diagnostic and treatment services. Amongst medical and nursing practitioners, knowledge of ASD is patchy, and considerable gaps in awareness are found between urban tertiary hospital and rural general practice practitioners. Minimal exposure to specialist training in ASD during medical and nursing curricula leaves gaps in diagnostic capabilities and referral patterns, contributing to late commencement of early intervention (Igwe et al., 2011; Obeid et al., 2020). Equally, schools, which may be the first to become aware of developmental or behavioral discrepancies in learners, commonly lack training in characterizing ASD-related behaviors as opposed to other learning or behavior problems, and so label and respond ineffectually (Ofovwe et al., 2018).

While the Nigerian media environment has started to report on ASD, coverage remains patchy and often has little evidenced-based content. Social media, which can spread correct information far and wide, can equally spread myths and misinformation if there is little in the way of planned public health communication (Ani et al., 2017; Mitter et al., 2019). The piecemeal approach does little to help build a consistent, correct, and culturally suitable narrative on ASD. The continued low awareness and insufficient knowledge in major sectors have serious implications: late diagnosis, less access to needed interventions, and worsening of stigma that keeps affected individuals and families isolated. Without specific, multisectoral actions to enhance awareness, prepare professionals, and mobilize communities; the gap between the needs of children living with ASD and what services they access will be wide. The issue not only has an impact on individual developmental performance but as well constitutes a general public and social inclusion issue for Nigeria. Hence, the review endeavors to explore the levels of awareness and knowledge of ASD in Nigeria, to map gaps and misconceptions in knowledge, and to explore socio-cultural and systemic causes of influence on perceptions of ASD, in preparation of recommending effective measures to boost knowledge of ASD and minimize stigma.

2. Methodology

Study Design

This article records a systematic scoping review undertaken to synthesize evidence on awareness and knowledge of Autism Spectrum Disorder (ASD) among Nigerians. The approach took the

general principles of the guidance on scoping reviews by Arksey and O'Malley but tailored to local circumstances of what would be investigated.

Search Strategy

A literature search ranged across March to July 2024 and used the major electronic databases PubMed, Scopus, Google Scholar, and African Journals Online (AJOL). Grey literature in Nigerian university stores, conference proceedings, and ministry publications were added as complementary sources. The search terms used keywords and Boolean types, for instance:

"Autism" OR "ASD" AND "awareness" AND "knowledge" AND "Nigeria"

"Autism" AND "healthcare professionals" AND "teachers"

"Autism Spectrum Disorder" AND "public perception" AND "Nigeria"

Reference lists of pertinent articles were also examined in order to retrieve other studies not included in the main databases.

Inclusion and Exclusion Criteria

To be included in the review, the studies were required to meet the following criteria:

- Focus on awareness or knowledge of ASD in any Nigerian population group (general population, health professionals, educators, carers)
- Supply main empirical data (quantitative, qualitative, or mixed-method
- Have been published between January 2000 and June 2024
- Should be in English

They were excluded if they:

- Aimed at populations other than Nigeria.
- Spoke of ASD awareness indirectly without claiming specific data.
- Were review articles, opinion pieces, or case reports without a clear methodology

Study Selection Process

All retrieved titles and abstracts were screened by two independent reviewers. Full-text screening was performed for potentially relevant studies, and disagreements were resolved by consensus. Data extraction was guided by a predesigned template, capturing:

- Author and year
- Study setting
- Population and sample size
- Used tools and research design adopted
- Main ASD awareness and knowledge results

Data Analysis

Extracted data were integrated thematically, clustering studies according to population type (general population, teachers, health professionals, careers). Descriptive stats were used to summarize quantitative outcomes, and qualitative themes were narratively examined to reveal persistent perceptions, misconceptions, and knowledge gaps.

Table 1: Summary of Selected Studies on ASD Awareness and Knowledge in Nigeria (2000–2024)

Author(s) & Year	Study Setting	Population & Sample Size	Key Findings on Awareness/Knowledge
Igwe et al., 2011	Enugu State	167 health workers	47% had heard of ASD; knowledge of core symptoms was low.
Ofovwe et al., 2018	Edo State	250 primary school teachers	62% aware of ASD; misconceptions about causes were prevalent.
Olusanya et al., 2021	Lagos State	300 caregivers	Awareness improving but diagnosis often delayed >3 years.
Obeid et al., 2020	Multi-state urban	120 pediatricians	Majority aware but many lacked training in standardized diagnosis.
Ani et al., 2017	Cross River State	200 general public respondents	39% had heard of ASD; supernatural causes cited by 28%.
Odejide et al., 2019	Oyo State	150 parents of school-aged kids	Awareness moderate; knowledge of early signs was poor.

3. Results

The literature analyzed found significant differences in the awareness and knowledge of Autism Spectrum Disorder (ASD) between various populations in Nigeria. The research found that awareness levels have tended to increase during the last decade, especially in urban communities, but there remain substantial gaps in knowledge in both professional and lay communities.

Among the general public, reported awareness ranged from 28% to 45%, with a considerable proportion associating ASD with supernatural or spiritual causes rather than neurodevelopmental origins. Misconceptions included beliefs that children with ASD are a result of parental wrongdoing or curses. Key barriers to accurate understanding in this group included entrenched cultural beliefs, widespread stigma, and the absence of sustained public health education campaigns. Health professionals showed increased awareness (47%–85%) but, similar to the general public, had incomplete knowledge of diagnostic criteria and failed to regularly use standardized screening instruments in practice. The main barriers were restricted exposure to ASD-specific training during medical school and the unavailability of national screening guidelines.

Amongst teachers in the education sector, awareness levels ranged from 60% to 75%, but they frequently confused ASD with other learning difficulties or assumed the condition could be "outgrown" without specific intervention. Inadequate provision of well-structured school-based screening and professional development programs also hampered correct identification and

management of children suffering from ASD. Carers and parents had highly fluctuating awareness, which was higher in urban carers as opposed to rural ones. Despite which, presentations were late, and they were resorting to the indigenous explanations of the condition, thus delaying referral to professionals. Stigma, economic concerns, and unavailability of diagnostic services were common features.

Table 2: Summary of Awareness and Knowledge Patterns of ASD in Nigeria (2000–2024)

Population Group	Awareness Level (Range)	Key Knowledge Gaps / Misconceptions	Main Barriers to Accurate Knowledge
General Public	28–45%	ASD linked to supernatural causes; limited understanding of full symptom range.	Cultural beliefs; stigma; minimal public health campaigns.
Healthcare Professionals	47–85%	Limited knowledge of diagnostic criteria; lack of screening tool use.	Inadequate ASD training in curricula; absence of national screening guidelines.
Educators / Teachers	60–75%	Confusion with other learning disabilities; belief that ASD can be outgrown.	Limited training opportunities; no structured school screening.
Caregivers / Parents	Variable (urban > rural)	Late recognition of symptoms; reliance on traditional explanations.	Stigma; lack of access to diagnostic services; service cost.

4. Discussion

Information from the scoping review shows that knowledge and awareness levels of Autism Spectrum Disorder (ASD) in Nigeria range greatly across population groups, and similar patterns have been found in other low- and middle-income nations (LMICs). There has, on the whole, been a perceptible rise in ASD awareness in the last ten years, especially in urban centers where advocacy, social media coverage, and non-governmental organization (NGO) activities are highest (Bakare et al., 2022; Adeola & Okondu, 2024; Bello-Mojeed et al., 2019). Despite such advances, knowledge continues to be superficial at community levels, and deep-seated misconceptions persist, blaming ASD on supernatural powers, parental transgressions, or family lineage curse instead of known neurodevelopmental causes (Obiakor et al., 2020; Eseigbe et al., 2015). Such views, in addition to delaying help-seeking, sustain stigma, and families become isolated, and discussion of the condition becomes stifled.

We also see from the survey that clinicians overall have high levels of awareness of ASD at rates above in the general population, of 47% to 85% (Oladipo et al., 2021; Igwe et al., 2020; Bello-Mojeed et al., 2019). There still remain knowledge gaps, however, particularly in the application of internationally standardised diagnostic criteria in the DSM-5 or ICD-11, for example. Practitioners still predominantly employ informal clinical impression rather than standardised

screening instruments, partly due to restricted training exposure and the absence of a national screening protocol for ASD (Adeola & Okondu, 2024; Igwe et al., 2011). The same has been reported in other sub-Saharan countries, where restricted health budgets and other concerns frequently mean neurodevelopmental disorders receive less attention and less emphasis, in contrast to infectious diseases (Franz et al., 2017; Tekola et al., 2020). This would mean that developing the capabilities of providers in Nigeria should be included in child and adolescent health training curricula.

Among teachers in the educational field, awareness levels were fairly high, between 60% and 75%, but misconceptions prevailed. A few researches indicated that teachers occasionally mistook ASD for intellectual disability, attention-deficit/hyperactivity disorder (ADHD), or other learning disorders as a result of inadequate training in developmental psychopathology (Bakare et al., 2015; Adegboyega et al., 2021). A section of teachers assumed that ASD may be "outgrown" without specific intervention, a misconception that negates early detection and specifically focused support services (Charman et al., 2017; Igwe et al., 2020). Moreover, school systems have inadequate, if any, ASD screening programs or in-service professional development modules, rendering teachers incapable of detecting early warning signs in pupils (Eseigbe et al., 2015; Olumoroti et al., 2018). This corroborates research in similar socio-econocomic environments, where incorporating ASD-specific content in teacher training curricula appreciably heightens knowledge and rates of early referral (Tekola et al., 2020; Franz et al., 2017).

Parents and carers exhibited some of the greatest levels of heterogeneity in awareness, with urban carers reporting on average higher knowledge compared to carers in rural communities (Bakare et al., 2022; Bello-Mojeed et al., 2019) but, as outlined below, there were general problems of late presentation of symptoms due to stigma, costs, and limited access to diagnostic services (Adeola & Okondu, 2024; Obiakor et al., 2020). Cultural accounts of sickness, particularly in villages, had a propensity to conceptualize ASD as a moral or spiritual issue, and so carers were prone to preferring prayer, diviners, or other types of religious treatment before presentation to professionals (Igwe et al., 2011; Eseigbe et al., 2015). This corresponds to general evidence that beliefs in LMICs can appreciably affect patterns of health seeking and result in biomedical treatment of neurodevelopmental disorders to be delayed (Tekola et al., 2020; Franz et al., 2017). Such delays not only weaken the outcomes of treatment in the very early period but induce an economic and emotional burden on families. Keenly, together, they indicate the urgency of a unified national awareness program directed at several sectors—health, education, and community while correcting the social and cultural impediments fueling misinformation. Successful cases in similar settings indicate that long-term, multi-channel campaigns in public education, in conjunction with systematized training of professionals, can significantly increase awareness and accurate knowledge of ASD (Charman et al., 2017; Tekola et al., 2020). In Nigeria, this would mean integrating ASD awareness in routine maternal and child health programs, enhancing teacher training curricula, and establishing national guidelines on early screening and diagnosis. The growing body of research in Nigeria, of which new presentations in Folorunso & Okondu (2024) and Folorunso et al., (2025) provide exemplary cases, provides a good evidence base upon which to base such interventions.

Conclusion

This review points out that despite enhanced awareness of Autism Spectrum Disorder in Nigeria in the past decade, extensive gaps in correct knowledge remain in the general population, in the medical and nursing workforce, in the education system, and in families. Cultural beliefs, stigma, deficiencies in training, and restricted access to diagnosis remain barriers to early detection and intervention. Closing such gaps entails a concerted, multisectoral effort at the national, regional, and local levels, in which culturally appropriate public awareness, professional training, and specific outreach to underserved communities are integrated. In the absence of such actions, late diagnosis and inequitable service delivery will be perennial issues, sustaining the social disadvantages of individuals living with ASD and their families.

Recommendations

Strengthening awareness and knowledge of ASD in Nigeria requires evidence-informed and context-adapted interventions. Given heterogeneity of knowledge levels as well as misconceptions in diverse population groups, the strategy should be tailored to the specific role and barrier of the respective group and be, at the same time, conducted in a planned and coordinated manner at the national level.

- Develop and Implement a National ASD Awareness Strategy: Establish a coordinated public health communication campaign using radio, television, print, and social media to promote accurate information about ASD, challenge stigma, and encourage early diagnosis.
- Integrating ASD Content into Professional Training: Ensure medical, nursing, psychology, and teacher training programs incorporate thorough ASD training, including practical aspects of screening, diagnosis, and referral protocols.
- Strengthen School-Based Identification and Referral Systems: Train teachers to identify early ASD signs and set up formal school-based screening and referral mechanisms in close collaboration with health authorities.
- Expand Community-Based Education and Support: Utilize community health workers and local leaders to deliver culturally sensitive ASD education, especially in rural and underserved areas.
- Build Media and Civil Society Partnerships: Bring on board journalists, advocacy, and non-governmental organizations to maintain evidence-informed reporting on ASD and advance inclusive accounts to combat discrimination.

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