

Nigerian Parents' Challenges in Caring for Children with Hearing Impairment

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Abstract: Parental care is essential for the proper growth and development of children, particularly those with disabilities such as hearing impairment. This study examines the challenges faced by Nigerian parents in providing care for children with hearing impairment. Utilizing a quantitative research design, data was collected through an online questionnaire administered via Google Forms to 385 parents and guardians. Findings reveal that parents face multi-faceted challenges, including financial strain, psychological stress, social discrimination, and physical exhaustion. Financial challenges emerged as the most significant, often leading to compromised quality of care. The study also indicates a significant positive relationship between the challenges faced by parents and the quality of care provided. The findings highlight the need for improved healthcare access, specialized education, and social support systems for children with hearing impairment. Recommendations include the establishment of specialized care facilities, increased awareness and training on inclusive education, and the integration of sign language in mainstream education to facilitate better communication and support for hearing-impaired individuals.

Keywords: Parental Care; Hearing Impairment; Disability Challenges; Inclusive Education; Financial Strain; Psychological Stress; Social Support Systems.

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1. Introduction

1.1. Problem Status

Parental care is cardinal for proper child growth and development, whether normal or requiring special care [24]. It becomes more important when dealing with children living with a disability. Disability comes in different forms and includes visual impairment, hearing impairment, mental health issues, autism, and physical disability [7]. Hearing impairment, often regarded as hearing loss, is a condition that describes the inability of an individual to hear sounds. There is a global prevalence of hearing loss, and five children per 1000 live births suffer from hearing impairment yearly [5]. Also, as reported by the World Health Organization in 2005, over 185 million people in developing countries suffer from one level of hearing loss or the other [2]. In developed countries where there is proper pediatric care, hearing impairment during childbirth can be corrected upon early detection [3]. The situation is not the same for developing countries like Nigeria, which have dysfunctional health systems

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characterized by the limited availability of ear care specialists. This has resulted in the prevalence of hearing impairment among the adolescent and adult populations [23]; [6].

Children with hearing loss face so many challenges. These challenges include difficulty in communicating with parents, family members, and friends, inability to participate in social associations such as religious groups and peer groups, leading to social exclusion, and inability to participate actively in academic activities, especially in places where there are no special schools for hearing impaired students, and inability to take up live surviving skills and career roles. These impact their academic achievements and reduce them to perennial dependants on their parents and loved ones even in adulthood [2]. Parents and guardians of children living with hearing impairment are bedevilled by these multi-faceted challenges facing their wards. For instance, when accessing healthcare, the healthcare giver needs to understand the exact symptoms by communicating with the patient to make an adequate prescription. This becomes a challenge when trying to diagnose the ailments of deaf and hard-of-hearing persons that require additional monitoring and observation from the parents to help the healthcare giver render the best assistance [23]. There have been several studies that have examined typical issues affecting caring for people with hearing impairment, such as those conducted by Idris & Badzis [24] and Olusanya & Okolo [5], in which quantitative research design with the use of well-structured questionnaires was used. The study shall adopt a quantitative research design with a well-structured questionnaire. The questionnaire shall be administered using Google Forms. This is to break the distance barrier between the researcher and the target population.

1.2. Related Studies

This section reviews several studies carried out by other researchers that are similar to the current study.

1.2.1. Domestic Research

Iliya & Ononiwu [1] conducted a study on the use of information and communication technology (ICT) gadgets by persons with disabilities in Nigeria. The study was hinged on the capability approach theory and critical realism methodology. The qualitative study was carried out using semi-structured questionnaires and focus group discussions with 24 participants. Key findings affirmed that personal, environmental and social factors are the major deterrent to the use of ICT gadgets such as mobile phones among people with disability in Nigeria. The authors added that these persons do not have adequate knowledge of social media and mobile phones. Financial factors, illiteracy, and inadequate network coverage are contextual impediments to the use of ICT gadgets by persons living with a disability. The study showed that people living with a disability sometimes face social exclusion because of their incapacity to fully engage with ICT devices in Nigeria.

Meanwhile, Olusanya et al. [6] reported the prevalence of non-specialist universal hearing screening for babies of about 2.6 days old in Lagos. The study discovered that 3.5% of the total number of babies screened were diagnosed with hearing loss and referred to a specialist. Such practice, if sustained, will help curb the prevalence of hearing loss among older children and adults. Similar studies reviewed have shown critical issues affecting children living with hearing impairment and other forms of disabilities. The roles of many stakeholders, including the parents, schools, religious institutions, and the government, have been highlighted. Also reviewed are clinical issues regarding caring for children with hearing impairment. Of great interest to this study are the challenges faced by parents of children with hearing impairment.

Fareo [9] extended the principle of inclusion to the regular school setting. It was posited that the school setting in Nigeria should create an inclusion program to be able to cater for learners with disability. The study took its bearing from the Social Learning Theory and the Observation Learning Theory. According to the author, the benefits of inclusion are enormous to both learners with and without disability. It provides better communication and social interaction and opportunity for all learners to participate actively. There are challenges to inclusive education, which include funding and the inadequacy of personnel, facilities, and teaching materials.

Torgbenu et al. [10] examined the role of parents in ensuring inclusive education in Nigeria. The authors emphasized that the attitude of parents of children with or without disability is critical to the implementation of inclusive education in Nigeria. The study was conducted using a survey questionnaire. A total of 708 parents participated in the study. The findings of the study suggest that parents did not have sufficient knowledge of inclusive education; as such, the majority of them were undecided. It was also discovered that the majority of the parents affirmed the norm that inclusive education was the sole responsibility of the teacher and other educational stakeholders. The study recommended awareness creation targeted towards sensitizing parents on the good of inclusive education and their role in the process.

Fubara-Manuel [15] examined the practice of inclusion among the Christian community in Port Harcourt and posited that the doctrine of inclusiveness for people living with disabilities should exceed mere accessibility and visibility. It should extend to

providing care and a sense of belonging to people living with a disability. The author added that persons with disability should be accorded the same treatment that is due to those without disability. He noted that the church, in particular, and society by extension, is incomplete without those living with disability. The study concludes by affirming the need for persons living with disability to be given the opportunity to express themselves and make full use of their talents.

Lazarus [17] assessed the socio-demographic factors that affect the ability of persons living with disability to comprehend in school using correlational research design. The study population comprised 123 junior secondary school students in Ibadan. The study deployed three rating scales to predict the level of reading comprehension: pupil rating scale, comprehensive school climate inventory, and reading comprehension scale. Research data was analyzed using Pearson product-moment correlation and multiple regression statistics. Key findings suggest that gender is the major factor that can be used in predicting the reading comprehension capacity of students with learning and other forms of disability. It was recommended that educationists should derive new measures to stimulate learning among this category of persons.

Adeleke et al. [22] investigated the implication of disability on family finances. The authors noted that caring for persons with intellectual disability has huge financial consequences, especially for the parents. The study was carried out in Cross River State, South-South Nigeria. The study sampled the opinions of 150 parents of children living with intellectual disability using a survey research design. Intellectual disability was considered the independent variable, while family income was treated as the dependent variable. Research data was analyzed using descriptive statistics. The findings of the study showed that intellectual disability has a negative implication on family finances and access to quality education for disabled persons. The study recommended special social care facilities for people living with all kinds of disability.

Several researchers have examined critical issues involving caring for people living with disability and hearing impairment in particular. Arulogun et al. [23] reported the experiences of girls living with hearing impairment in accessing reproductive health care in Nigeria. They stated clearly that communication and costs were key barriers to accessing reproductive health care. The study also discovered the prevalence of sexually transmitted infections and pregnancy termination among girls with hearing impairment. Also, Olusanya & Okolo [5] posited that the deplorable state of perinatal conditions in Nigeria is a major causal factor to the prevalence of permanent hearing loss in Nigeria. The study identified difficulty in delivery, neonatal jaundice, neonatal seizures, and birth asphyxia as some of the clinical issues; if not well handled, they can result in permanent hearing loss. The study recommended that early detection of hearing loss be integrated into child healthcare clinical routines.

In the same vein, Adeniyi & Kuku [25] proposed the use of gamification and experiential learning to stimulate learners with hearing impairment in Nigeria to perform better in mathematics. A purposive and simple random sampling technique was used to elicit study data from 24 learners in Lagos State, Nigeria. The study deployed a quasi-experimental research design that involved the use of pre-tests and post-tests on the same group. The learners were taught mathematics using the conventional teaching method and were examined (pre-test). They were then taught the same lesson by gamification and experiential learning methods and then re-examined (post-test). The pre-and post-tests were analyzed using analysis of covariance (ANCOVA). The results of the study showed that the performance of learners with learning impairment in the two tests was different. The learners performed better after gamification and experiential learning lessons.

In a separate study, Abikoye et al. [27] observed that visual impairment is becoming popular among persons living with hearing impairment and sought to know the causes by sampling one hundred and nine parents of students with hearing impairment and discovered that 19% of this sample population were visually impaired. The leading causes were refractive error, amblyopia, and cataract. The parents attributed the visual impairment of their deaf and hard-of-hearing children to ignorance of ocular morbidity and the unavailability of eye care centres. The study recommended the setting of ophthalmic centres within schools for hearing-impaired students.

In a related study, Jacob et al. [28] examined the issue of aggressive behaviour among persons with disability. The study, which deployed the convenient sampling technique, investigated the behaviour of students with intellectual disability by sampling 87 teachers. The authors opined that aggressiveness among disabled students is a result of cognitive and emotional instability. It was also discovered that the level of aggressiveness differed based on gender. The aggressiveness could be verbal, physical, or destructive behaviour. The study recommended special attention by schools to learners with one form of disability or the other to curb all forms of aggressiveness.

1.2.2. Researches Made Abroad

Idris & Badzis [24] examined the experiences of parents in coping with interpersonal behavioural issues in children who have hearing loss. Three categorical behavioural variables were considered: aggression, judgment by others, and the plea for social support pivotal to the interpersonal relationship between children with hearing impairment and other children. The study

discovered that parents resolve spiritualism and collaborate with other people to cope with challenges. This suggests the need for a more practical and scientific approach to coping with challenges parents face in coping with the behavioural excesses of children with hearing impairment.

Cacioppo et al. [18] investigated the health challenges children with physical disabilities were exposed to during the COVID-19 pandemic. The study was carried out in France. The authors posit that during the lockdown period, children with disability were exposed to mental, behavioural, social and physical risk. Some of the health issues observed were cerebral palsy and neuromuscular diseases. A lot of medical care programs targeted at this class of persons were put to a halt, which created a lot of concern for their parents. The study discovered that most parents were subjected to mental overload and complained of the unavailability of help and support in caring for their children with disability. In furtherance of the previous study, Krishnan et al. [12] examined the challenges students with hearing impairment faced during COVID-19. The study was carried out in Malaysia. Ten persons between 19-22 years old participated in the study. These persons were studying culinary arts in a skill transformational centre. A questionnaire interview via WhatsApp was conducted. The key challenges highlighted by the participants were disruption to comprehension of lessons, unfamiliarity with online devices, inability to use hearing devices, and emotional instability during online classes. The study recommended that stakeholders in academia develop a methodology to assist persons with hearing impairment in engaging in remote learning processes.

Ganz et al. [11] observed that children with physical disability tend to exhibit sedentary behaviours. The study deployed a scoping review methodology to observe children within the age range of 0 -18 years who had a physical disability. The study used questionnaire surveys and interviews to investigate the impact of intervention on the decrease of sedentary behaviours among children with disability. The study concluded that there is no evidence that accelerometry strategies can ease sedentary behaviours in children with disability. In response to this, Shirazipour et al. [8] recommended programme conditioning that will foster physical activity participation among people with disability. The review paper considered 30 articles (24 qualitative and six quantitative) that focused on the inclusion criteria. The study recommended group-based programmes that will create a sense of belonging among people living with physical disability.

In another study, Michalowsky et al. [4] associated hearing impairment and visual impairment with dementia. The study was conducted in Germany. Results of the study showed that 11.2% of patients with hearing impairment also suffered from dementia, while 28.4% of patients with visual impairment also suffered from dementia. The findings also suggest that those with hearing impairment had a higher risk of developing dementia. The study concludes that hearing impairment affects the patients' cognitive ability, thereby creating a high risk of dementia. Ruusuvuori et al. [14] examined the issue of stigmatization of persons with hearing impairment. The study was conducted in Helsinki, Finland. The authors reviewed 18 studies on hearing impairment to establish the process of stigmatization. It was stated that the issue of stigmatization negatively impacted the readiness and willingness of persons with hearing impairment to use hearing aids.

1.3. Importance of Research

The study will help to unravel the physical, psychological, moral, and financial challenges parents of hearing-impaired children are facing in providing total care, including health care and education for them. The findings of the study will be relevant to policymakers, non-governmental organizations, and social works service providers to strategize on how to help these parents cope with these challenges and ensure that these children have access to quality education and health care by making necessary financial, infrastructural and personnel provisions.

1.4. The Problem Statement and Sub-Problems of the Research / Hypothesis – Hypotheses

1.4.1. Problem Statement

Having children with a physical disability is a great concern to parents and could be highly demanding, especially for children with hearing impairment. One of the major concerns is communication, especially at an early age before the commencement of schooling. This makes caregivers, including parents, develop new methods of interacting with their wards. In developing countries like Nigeria, where access to quality health care and education is an issue even for non-disabled people, it becomes interesting to examine the challenges parents face in accessing healthcare and quality education for their children living with hearing impairment vis a vis their academic performance. Oftentimes, parents have to make special sacrifices to ease the plight of their children living with a disability. This is why this study seeks to examine the challenges of Nigerian parents in caring for children living with hearing impairment using the following variables: quality of care, physical challenges, psychological challenges, emotional challenges, and financial challenges. The purpose of this study is to assess the relationship between the

independent variables (physical challenges, psychological challenges, emotional challenges, and financial challenges) and the dependent variable (quality of care).

1.4.2. Purpose of the Research

The purpose of this academic research study is

- Examine the challenges Nigerian parents face in caring for their children with hearing impairment.
- Assess the relationship between physical, financial, psychological, and moral challenges and the quality of care parents are able to provide for their children with hearing impairment.

1.4.3. Research Question

- What are the challenges parents of children with hearing impairment encounter in caring for them?
- What is the quality of care provided to children with hearing impairment by their Nigerian parents?
- What is the relationship between the independent variables (physical challenges, psychological challenges, financial challenges, and social challenges) and the dependent variable (quality of care provided to hearing-impaired children by their parents)?

1.4.4. Hypotheses

- **H1,0:** There is no significant difference in the parents' view of the challenges faced in caring for children with hearing impairment.
- **H1,1:** there is a significant difference in the views of parents on the challenges faced in caring for their children with hearing impairment.
- **H2,0:** there is no significant difference in the quality of care their Nigerian parents provided to children with hearing impairment.
- **H2,2:** there is a significant difference in the quality of care provided to children with hearing impairment by their Nigerian parents.
- **H3,0:** there is no significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.
- **H3,3:** there is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.

1.5. Postulates of the Research

The study is based on the assumption that there are children with hearing impairment in Nigeria. The parents of these children want the best in terms of education and life outcomes for them. However, in the cause of providing this care, they encounter challenges that this study seeks to investigate. It is also assumed that concerned parents will be willing to participate in the study and provide honest responses to the survey questions.

1.6. Limitations of the Research

While disability is a global challenge, and there are many forms of disability, this study only focuses on hearing impairment and Nigerian parents. Nigeria is the most populous country in Africa, and it is a middle-income country. Key findings can be applicable to other middle-income countries within the African continent and around the world. The study is also limited by distance. The target population of the study are not within the physical reach of the researcher. The study, therefore, uses online surveys to get to the target population.

1.7. Terms of Research

The following are the operational definitions of terms as used in this study:

- **Parents:** a person's father or, mother or guardian providing needed care.

- **Disability:** any limitation to a person's involvement in activities that is a result of the mental or physical condition of the person.
- **Challenges:** the problems or obstacles one has to grapple with to achieve a task. The limitations associated with carrying out a task.
- **Hearing Impairment:** it also means hearing loss; it could be partial or total. An individual cannot hear properly.

2. Research Method

2.1. Model of the Research

Conceptual Model-Parental Challenges with Caring for Children with Hearing Impairment: Parenting of children with disabilities comes with additional challenges. Parents of children with hearing loss are prone to providing a higher amount of emotional and psychological pressure resulting from their children's behaviours and dispositions. They also have to deal with the opinions of others about their children, which presents a sense of loss or grief. Coping with these pressures, coupled with the pressure of work and career pursuit, places a demand on parents to ensure that their children have access to quality care [24]; [19].

Theoretical Model – Critical Disability Theory (CDT): The critical theory formulated by J. Habermas is the basis for many disability studies. The CDT was derived from the critical theory of the Frankfurt school, which originally was not targeted at disability studies. CDT is designed to explain current social issues experienced by those with one form of disability or the other, identify key persons in society who can foster change, and synthesize specific standards to formulate social change targets. CDT is hinged on the fact that people suffering from disabilities are often prone to human rights violations [16]. In this regard, the theory questions the ill-treatment, which is evident by the seclusion of those living with disability by those who are non-disabled, leading to limited access to social and economic provisions. In this study, this theory will be used to examine through a descriptive survey those socio-economic and psychological issues that hinder parents from giving total adequate care to their children living with hearing impairment.

Research Design: The study will adopt a quantitative research design. Quantitative research deals with the objective measurement of observation and explains the causes of the observation [21]. It usually involves the use of statistics and numbers to provide answers to research problems, in this case, Nigerian Parent's Challenges in Caring for Children with Hearing Impairment. The choice of this research methodology was based on the methodology adopted in similar studies [7].

2.2. Study Group / Population and Sample of the Study

2.2.1 Population of the Study

The study population shall comprise all parents and guardians of children living with hearing impairment who are based in Nigeria. The Premium Times (a Nigerian newspaper outfit) reported on the 28th of May 2020 that about 8.5 million Nigerians have a hearing impairment. The study population shall be the parents/guardians of these 8.5 million people.

2.2.2 Sample of the Study

Purposive sampling will be used to select the respondents who must be parents/guardians of hearing-impaired children. The sample size shall be 385 parents/guardians of children living with hearing impairment. The sample size was obtained online from Raosoft at a 95% confidence interval, considering a population size of 8.5 million.

2.3. Data Collection

2.3.1. Preparation of Data Collection Tool

The instrument for data collection shall be the researcher-developed, well-structured questionnaire, which was administered online through Google Forms. The questionnaire was developed and adopted based on insight derived from similar studies [13]. The link will be shared on social media platforms and through friends to reach the target population. The online survey shall be structured such that only respondents who are residents of Nigeria and are parents/guardians of hearing-impaired children can complete the survey.

2.3.2. Validity of Data Collection Tool

Validity describes the appropriateness of the data collection tool in effectively measuring the research variables. In a simple context, validity is the extent to which the instrument actually measures what it is to measure. The data collection tool shall be subjected to face and content validity. The project supervisor will cross-examine the data collection tool to determine its appropriateness and usefulness.

2.3.3. Reliability of Data Collection Tool

Reliability measures the consistency of the data collection tool to produce the same score over repeated trials. The reliability of the research instrument is measured by conducting a pilot study in which 20 respondents outside the study area will be interviewed with the research instrument, and the responses will be analyzed using the Cronbach Alpha measure of internal consistency. Table 1 shows that Cronbach's Alpha is 0.820, which shows acceptable internal consistency in the research instrument.

Table 1: Reliability test result

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.720	0.801	31

2.3.4. Application of Data Collection Tool

The data collection tool shall be applied online. Respondents will be able to access and fill out the questionnaire using their smartphones and personal computers. The link to the tool will be shared on different social media platforms to drive traffic to the form. Key targets will include parent groups of special schools.

2.4. Analysis of Data

The data collected were analyzed using SPSS 22.0. First, the output from Google Forms was downloaded as a .csv file. The data was cleaned to remove incomplete entries. The cleaned .csv file was imported to SPSS and coded to aid analysis. Descriptive analysis of frequency, simple percentages, mean, and cross-tabulation were used to analyze respondents' demographics and research questions. In contrast, inferential statistics of Analysis of Variance (ANOVA) shall be used to test the research hypothesis at a 0.05 significance level.

3. Findings

3.1. Demographic Distribution of Respondents

The demographic data of the respondents is presented in Table 2. It shows that 59.4 percent of the respondents are male, while 40.6 percent are female. The majority of the respondents are parents or guardians of children with hearing impairment (84.9%), while 12.6 percent are close friends or relatives of parents with hearing-impaired children. Table 2 also indicates that 58.5 percent of the children with hearing impairment are males, while 41.5 percent are females. Furthermore, it can be observed that 44.3 percent of the respondents discovered the condition of their wards at 0 – 2 years, 32 percent at 3 – 5 years, 17.2 percent at 6 – 9 years, and 6.5 % at 10 years and above. This shows that most cases of hearing impairment occur between 0 – 2 years.

The study also investigated the causes of hearing impairment in children. The findings of the study, as presented in Table 2, reveal that 22.8% of the cases occur due to complications during pregnancy or child delivery, and 37.8% are because of diseases or sicknesses. In comparison, 21.2% are due to injections. The respondents also attributed the causes of hearing impairment to accidents (15.4%) and juju or witchcraft (2.8%). The distribution of the respondents with respect to total monthly household income shows that 31.1% earn less than NGN50,000, 42.2% earn between NGN50,000 and NGN99,000, and 17.2% earn between NGN100,000 and NGN199,000, and 7.7% earn between NGN200,000 and NGN499,000. Meanwhile, only 1.8% earn NGN500,000 and above monthly. This shows that the majority of the respondents come from households with a total monthly income of less than NGN200,000. The household size distribution shows that 48.6% of the respondents come from households with less than five persons, while 50.5% come from households with a population of 5 – 10 persons. Only 0.9% are from households with more than 10 persons. This indicates that the majority of the respondents are from households with less than 10 persons.

Table 2: Respondents' demographic data

Item	Frequency	Percent
Gender of parents		
Male	193	59.4
Female	132	40.6
Total	325	100.0
Are you a parent/guardian of a child with hearing impairment?		
Yes	276	84.9
No	8	2.5
No, but I have a close relative or friend with hearing impaired child	41	12.6
Total	325	100.0
What is the gender of the child?		
Male	190	58.5
Female	135	41.5
Total	325	100.0
At what age did you discover your child is hearing impaired?		
0 - 2 years	144	44.3
3 - 5 yes	104	32.0
6 - 9 years	56	17.2
10 years and above	21	6.5
Total	325	100.0
What is the cause of the child's hearing impairment?		
Before or during birth complications	74	22.8
Disease/sickness	123	37.8
Injection	69	21.2
Accident	50	15.4
Juju/witchcraft	9	2.8
Total	325	100.0
What is your total monthly household income?		
Less than NGN50,000	101	31.1
NGN50,000 - NGN99,000	137	42.2
NGN100,000 - NGN199,000	56	17.2
NGN200,000 - NGN499,000	25	7.7
NGN500,000 and above	6	1.8
Total	325	100.0
What is your household size?		
Less than five persons	158	48.6
5 - 10 persons	164	50.5
More than 10 persons	3	0.9
Total	325	100.0

3.2. Research Questions

Research Question 1: What are the challenges parents of children with hearing impairment encounter in caring for them?

Table 3 presents the challenges faced by parents of parents with hearing impairment. 31.4% of the respondents are of the opinion that the child's disability always places financial pressure on the family, while 65.5% said sometimes. Only 3.1% of the respondents did not consider the child's disability as a source of financial pressure. The mean of 2.28 suggests that the majority of the respondents affirmed that the child's disability places financial pressure on the family. Similarly, the majority of the respondents posited that sometimes, family arguments pop up due to the condition of the child (76%). It was also a popular perception among parents that sometimes the child's condition leads to the feeling of guilt (77.5%). In the same vein, 75.4% of the parents indicated that they suffer depression sometimes due to the condition of their wards, and 75.1% confirmed that they suffer discrimination from extended family members sometimes.

Meanwhile, 77.3% of the respondents sometimes feel exhausted after caring for their children living with hearing impairment. 78.5% are of the opinion that they sometimes abscond from physical gatherings due to the condition of their children, and 74.5% of the respondents asserted that it is sometimes difficult for their children to move around with public transport. In comparison, 74.5% stated that it is sometimes difficult to access quality health care for their children. In the same vein, 79.7% assured that their domestic lives are sometimes affected by the child's condition, and 74.5% opined that the condition of their children sometimes affects the type of job they do. The challenges of parents were ranked, and financial challenges emerged as the leading challenge parents face. Other top five challenges are feelings of guilt, family arguments, the child's difficulty to move around alone, and depression in that order. Meanwhile, the bottom three challenges are the inability to attend certain functions because of the child's condition, the inability to access quality healthcare services, and the impact of the child's condition on the parent's job.

Table 3: Challenges of parents

S/N	Challenges	Frequency (%)			Mean	Rank
		Never	Sometimes	Always		
1	The child's disability places financial pressure on the family	3.1	65.5	31.4	2.28	1st
2	Family arguments ensue because of the disability	3.1	76	20.9	2.18	3rd
3	You often feel guilty about your child's condition	1.5	77.5	21	2.20	2nd
4	You suffer depression because of your child's condition	4.9	75.4	19.7	2.15	5th
5	You suffer discrimination from extended family	6.5	75.1	18.4	2.12	7th
6	You often feel physically exhausted from caring for your child	5.2	77.3	17.5	2.12	7th
7	You have refused to attend some physical gatherings because of your child's condition	6.4	78.5	15.1	2.09	10th
8	Your child finds it difficult to move around using public transport	5.2	74.5	20.3	2.15	4th
9	Accessing quality health care for your child is difficult because of his condition	7.4	74.5	18.1	2.11	9th
10	Your child's condition affects your domestic life	3.1	79.7	17.2	2.14	6th
11	Your child's condition has an impact on the type of job you do	8.6	74.5	16.9	2.08	11th

Research Question 2: What is the quality of care provided to children with hearing impairment by their Nigerian parents?

The answer to this question is captured in Table 4. The study sought to know the extent to which family members assist the child. The findings show that 4.6% of the respondents posit that family members never assist the child freely, while 72% and 23.4% opined that family members sometimes and always assist the child, respectively. This indicates that the majority of the respondents are of the opinion that family members sometimes assist the child freely. Similarly, 751% of the respondents affirmed that they have access to ear care specialists sometimes, and 76.6% sometimes take loans to meet the financial demands associated with caring for their children. Meanwhile, 61.8% of the respondents sometimes encourage family members to give special attention to the child with hearing impairment, while 37% do this always. Similarly, 66.2% and 28.9% of the respondents go the extra mile to ensure that their children attend special schools sometimes and always, respectively. In addition, 68.9% of the respondents sometimes enrol their children in regular schools due to financial challenges, and 69.2% sometimes employ personal staff to take care of the needs of the child. In comparison, 80.6% of the respondents sometimes seek guidance and counselling from counsellors and spiritual leaders. The results depict that deaf and hard-of-hearing children in Nigeria do not always have access to quality care due to challenges faced by their parents.

Table 4: Quality of care provided

S/N	Item	Frequency		
		Never	Sometimes	Always
1	Family members freely assist the child	4.6	72	23.4
2	You have access to ear care specialists for your child	4.9	75.1	20
3	You take loans from banks to meet the financial demands	11.7	76.6	11.7
4	I encourage other members of the family to treat the child with love and affection	1.2	61.8	37

5	I go the extra mile to enrol the child in a special school regardless of the distance	4.9	66.2	28.9
6	Due to lack of finance, I enrol the child in a regular school	10.2	68.9	20.9
7	I employed a personal staff to take care of the needs of my child	8.9	69.2	21.9
8	I seek counsel from counsellors and religious leaders to ease the emotional burden	3.4	80.6	16

Research Question 3: What is the relationship between the independent variables and the dependent variable?

This research question investigated the relationship between the independent variables (financial, psychological, emotional, and social challenges) and the dependent variable (quality of care). The data presented in Table 5 answers this research question. The results are a cross-tabulation of the quality of care and the challenges of parents. Pearson’s correlation coefficient was deployed to establish the relationship between the quality of care and the challenges of parents. Pearson’s R coefficients show that there is a positive relationship between financial challenges (R=0.242), psychological challenges (R=0.341), social challenges (R=0.441), and physical challenges (R=0.4) and the quality of care. The alpha level of significance for all variables considered is 0.000, which shows that the relationship between quality of care and the challenges faced by parents is significant. Hence, it can be asserted that there is a positive significant relationship between the independent variables (financial, psychological, social, and physical challenges) and the dependent variable (quality of care).

Table 5: Relationship between quality of care and challenges

		I employed personal staff to take care of the needs of my child to ease the physical stress. (Quality of care)				Pearson’s R	Sig
		Never	Sometimes	Always	Total		
The child’s disability places financial pressure on the household. (Financial challenge)	Never	4	0	6	10	0.242	.000
	Sometimes	15	180	18	213		
	Always	10	47	45	102		
	Total	29	227	69	325		
You suffer depression because of your child’s condition. (Psychological challenge)	Never	6	8	2	16	0.341	.000
	Sometimes	15	201	29	245		
	Always	8	18	38	64		
	Total	29	227	69	325		
You suffer discrimination from extended family members and colleagues. (Social challenge)	Never	10	6	5	21	0.441	.000
	Sometimes	14	208	22	244		
	Always	5	13	42	60		
	Total	29	227	69	325		
You often feel physically exhausted from caring for your child. (physical challenge)	Never	10	6	1	17	0.4	.000
	Sometimes	14	202	35	251		
	Always	5	19	33	57		
	Total	29	227	69	325		

3.3. Research Hypothesis

Hypothesis 1

- **H_{1,0}**: There is no significant difference in the parents’ view of the challenges faced in caring for children with hearing impairment.
- **H_{1,1}**: there is a significant difference in the views of parents on the challenges faced in caring for their children with hearing impairment.

Table 6 shows the results of the variance analysis (ANOVA) for hypothesis 1. At a df of 4, F-value = 7.475 and a significance of 0.000, there exists a significant difference in the views of parents on financial challenges they face while caring for their children living with hearing impairment. Similarly, with a df = 4, F-value = 10.019, and a significance of 0.000, there is a significant difference in the view of parents on the psychological challenges they face while caring for their children. In Table 6, it is observed that a similar trend exists for both social and physical challenges. Therefore, the null hypothesis that there is

no significant difference in the views of parents on the challenges faced in caring for children with hearing impairment is rejected, and the alternate hypothesis is accepted.

Table 6: ANOVA results for Hypothesis 1

		Sum of Squares	df	Mean Square	F	Sig.
The child's disability places financial pressure on the household (Financial challenge)	Between Groups	7.345	4	1.836	7.475	0.000
	Within Groups	78.612	320	0.246		
	Total	85.957	324			
You suffer discrimination from extended family members and colleagues (Social challenge)	Between Groups	8.494	4	2.124	10.019	0.000
	Within Groups	67.826	320	0.212		
	Total	76.320	324			
You suffer depression because of your child's condition (Psychological challenge)	Between Groups	5.542	4	1.386	6.581	0.000
	Within Groups	67.369	320	0.211		
	Total	72.911	324			
You often feel physically exhausted from caring for your child (Physical challenge)	Between Groups	7.952	4	1.988	10.408	0.000
	Within Groups	61.125	320	0.191		
	Total	69.077	324			

Hypothesis 2

- **H_{3,0}**: there is no significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.
- **H_{3,3}**: there is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.

The result of the analysis of this hypothesis is presented in Table 2. For the various items considered in Table 7, the significance is less than 0.05. This indicates that the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, it is asserted that there is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.

Table 7: ANOVA test results for Hypothesis 2

		Sum of Squares	df	Mean Square	F	Sig.
I take loans from banks to meet the financial demands	Between Groups	6.089	4	1.522	6.967	.000
	Within Groups	69.911	320	.218		
	Total	76.000	324			
I encourage other members of the family to treat the child with love and attention	Between Groups	12.682	4	3.170	14.511	.000
	Within Groups	69.915	320	.218		
	Total	82.597	324			
I go the extra mile to enrol the child in a special school regardless of the distance	Between Groups	3.598	4	.899	3.282	.012
	Within Groups	87.682	320	.274		
	Total	91.280	324			
Due to a lack of finances, I enrolled the child in the regular school	Between Groups	6.125	4	1.531	5.378	.000
	Within Groups	91.106	320	.285		
	Total	97.231	324			
	Between Groups	26.912	4	6.728	32.539	.000
	Within Groups	66.165	320	.207		

I employed personal staff to take care of the needs of my child to ease the physical stress	Total	93.077	324			
I seek counsel from counsellors and religious leaders to ease the emotional burdens	Between Groups	5.459	4	1.365	8.340	.000
	Within Groups	52.368	320	.164		
	Total	57.828	324			
Family members freely assist the child	Between Groups	14.144	4	3.536	17.300	.000
	Within Groups	65.407	320	.204		
	Total	79.551	324			

Hypothesis 3

- $H_{3,0}$: there is no significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.
- $H_{3,3}$: there is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.

The ANOVA results presented in Table 8 show that there is a significant relationship between the independent variables (financial, psychological, physical, and social challenges) and the dependent variable (quality care). With an F-value of 9.382 and a df of 2, $\alpha = 0.000$ (which is less than 0.05 level of significance), and a confidence interval of 95%, there is a significant relationship between financial challenge and the quality of care. Similarly, at significance levels of 0.000, 0.021, and 0.000, there is a significant relationship between psychological, social, and physical challenges and quality of care, respectively. Hence, the null hypothesis that there is no significant relationship between the independent variables and the dependent variable is rejected, while the alternate hypothesis is accepted.

Table 8: ANOVA results for Hypothesis 3

S/N	Variables		Sum of Squares	df	Mean Square	F	Sig.
1	The child's disability places financial pressure on the household (Financial challenge)	Between Groups	4.254	2	2.127	8.382	0.000
		Within Groups	81.703	322	0.254		
		Total	85.957	324			
2	You suffer depression because of your child's condition (Psychological challenge)	Between Groups	4.584	2	2.292	10.800	0.000
		Within Groups	68.327	322	0.212		
		Total	72.911	324			
3	You suffer discrimination from extended family members and colleagues (Social challenge)	Between Groups	1.808	2	0.904	3.907	0.021
		Within Groups	74.512	322	0.231		
		Total	76.320	324			
4	You often feel physically exhausted from caring for your child (physical challenge)	Between Groups	9.318	2	4.659	25.103	0.000
		Within Groups	59.759	322	0.186		
		Total	69.077	324			

3.4. Summary of Findings

3.4.1. Summary of Demographic Characteristics of Respondents

The following findings are deduced from the demographic characteristics of the respondents:

- Most cases of hearing impairment occur in children between 0 – 2 years (41.5% of the respondents); this aligns with the study carried out by Olusanya et al. [6].
- The leading causes of hearing impairment in children are sickness/diseases (37.8%), complications during pregnancy or delivery (22.8%) and injections (21.2%).
- Over 70% of the respondents' households earn less than NGN100,000 as their total monthly income.

3.4.2. Summary of Research Questions

- The leading challenges faced by parents are financial, feelings of guilt, family arguments, difficulty in the child's movement, and depression.
- Children with hearing impairment do not always have access to quality care from their parents or guardians.
- There is a positive relationship between the challenges of parents and the quality of care provided to children living with hearing impairment.

3.4.3. Summary of Research Hypotheses

- There is a significant difference in the views of parents on the challenges faced in caring for their children with hearing impairment.
- There is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.
- There is a significant relationship between the challenges of parents and the quality of care provided to children with hearing impairment.

4. Conclusion Discussion And Recommendations

4.1. Conclusion and Discussion on the Challenges of Parents

Parents are faced with multiple challenges in caring for children with hearing impairment. The challenges are financial, physical, psychological, and social. The main challenges facing parents include a lack of finances, feelings of guilt, family friction, and depression. This is so because the demographic characteristics of the respondents revealed that the majority come from household sizes of at least five persons and total monthly household income is less than NGN100,000. The study also showed that there is a significant difference in the views of the parents on the challenges they face while caring for deaf and hard-of-hearing children. A similar study also discovered that psychological challenges such as the feeling of guilt and devastation are key challenges parents of children with hearing loss encounter.

4.2. Conclusion and Discussion on the Quality of Care

The study showed that children with hearing impairment do not always have access to quality care, such as health care, education, and assistance from family members. The limited availability and high cost of special schools and accessing ear specialists means that most parents sometimes decide to provide their children with the required care. The findings of the study also affirmed that there is a significant difference in the quality of care parents offer to their children with hearing impairment. This is mainly due to the total household income. The implication is that parents with more money are more likely to provide quality care for their children with hearing impairment. The findings of this study align with those of Arulogun et al. [23], who proposed hearing impairment-focused services to engender full participation of this category of persons in healthcare, educational, and social programmes. Hamzah et al. [20] proposed an inclusive education system to ensure quality education for students with hearing loss. This can be extended to other aspects of care, such as healthcare and the provision of social amenities. The inclusion policy will relieve parents of the need to go the extra mile to ensure their children with disability enjoy quality care.

4.3. Conclusion and Discussion on the Relationship Between Challenges of Parents and the Quality of Care

A significant positive relationship exists between the challenges faced by parents and the quality of care. This implies that if the challenges of parents are resolved, the quality of care they are able to provide for their children will improve. The research hypothesis also affirmed that there is a significant relationship between the challenges of parents and the quality of care they provide to children living with hearing impairment. By this, quality of care is considered as a dependent variable, while the challenges of parents, such as financial, psychological, physical, and social challenges, are considered as the dependent variables. This view is supported by Merugumala et al. [26], who noted that these challenges (financial, inability to access healthcare facilities, and educational and cultural challenges) limit the treatment of cases of hearing impairment. The authors further explained that with accessible healthcare services, sensitization programmes, and hearing screening interventions, there will be early detection of hearing loss, which can foster easy treatment.

4.4. Suggestions for Researchers

Based on the findings of this study, the following are suggested for researchers;

- There is a need to establish the relationship between the severity of hearing impairment and the challenges parents face.
- There is a need to develop a standard matrix for measuring the quality of care provided for physically challenged persons.

- Further research should develop strategies and techniques that will explore the perceptions of physical challenges, the challenges they face and the quality of care they receive. This will help validate studies on parents' views and create the opportunity to develop a proper solution to the challenges of physically challenged persons, including those living with hearing impairment.

4.5. Suggestions for Practitioners

Practitioners make the following suggestions;

- In Nigeria, a database of those living with hearing impairment should be created to include their parents' socio-economic status. This will be useful in developing and implementing specific interventions targeted at this category of persons.
- Efforts should be made to ameliorate the challenges of parents by both the government and private sectors, such as NGOs and well-meaning individuals. Such efforts include setting up special hospitals and schools within communities or big cities with a large population of deaf and hard-of-hearing people.
- Sign language can be made compulsory even in normal schools, especially at primary and secondary school levels, to enable everyone to communicate with those living with hearing impairment. This will help to ease the challenges those with hearing impairment face when moving around using public transport or communicating in the marketplace.

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