

Psychiatric Morbidity Among Adolescent Students With Deafness In A Nigerian School For Persons With Special Needs

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ABSTRACT

Adolescence is a transitional period from the age of 10 to 19 years, when young people undergo physical, biological, psychological, cognitive, social and economic changes. Adolescence could be a challenging period for people. Adolescents with deafness face greater challenges as their communication skills and access to information relevant to their social life is limited. This study is a cross-sectional school-based one conducted among 105 adolescent students with deafness at Osun State Secondary School for Persons with Special Needs, Osogbo, Nigeria. Otoscopy was performed on all the participants to check for those with cerumen impaction and other middle ear pathologies. Pure Tone Audiometry was done by a certified Audiologist to determine the hearing thresholds of all the participants. General Health Questionnaire (GHQ 12) was used to determine the prevalence of psychiatric morbidity among the participants. The majority of the participants were late adolescents 96.2% (15 – 19 years), with a mean age of 17.45 years (SD = 1.50). There were 60 male and 45 female adolescent students with deafness that participated in the study .76.2 % were normal (negative psychiatric morbidity) while almost a quarter (23.8%) of the respondents had positive psychiatric morbidity. Adolescent student with deafness are at risk of psychiatric morbidity. Prompt provision of effective communication within the family and societal support will go a long way to preventing many of these problems.

Key words- Psychiatric morbidity, adolescent, deafness, special needs

BACKGROUND TO THE STUDY

Adolescence could be a challenging period for people. Adolescents with deafness face greater challenges as their communication skills and access to information relevant to their social life

is limited. Adolescence is a transitional period from the age of 10 to 19 years, when young people undergo physical, biological, psychological, cognitive, social and economic changes [1] that affect the development of their health, well-being and health behavior [2]. Adolescence can be divided into two parts: early adolescence (10–14 years) and late adolescence (15–19 years). During early adolescence, the physical changes in the development of the brain are obvious [3, 4]. Late adolescence comprises the latter teenage years and at this stage, most of the physical changes have already occurred, with the continuous development of both the body and mind. During these years, cognitive abilities are enhanced with analytical and reflective thoughts [4] and the adolescent's understanding of the social perspectives, their self-awareness and their inhibitory control are increased [3].

The NAD (National Association for the Deaf) defines the term “deaf” as those persons who are unable to hear well enough to rely on their hearing and to use it as a means of processing information. The NAD refers to “hard of hearing” as those persons who have some hearing, and are able to use it for communication purposes, and who feel reasonably comfortable doing so [5]. Those who have lost their hearing before three years of age and whose loss is present before the development of speech and language are classified as pre-lingual, the persons who experience loss at three years of age or older, however, are classified as post lingual [6]. In fact the deaf and hard of hearing are a group of people who mostly experience the world visually and have a unique and vibrant culture, a fact not always appreciated by hearing individuals. Many advocates believe that recognition by the hearing public that a deaf culture exists is a crucial first step toward educating the Nation about the needs of the deaf and hard of hearing [5]. While deafness has historically been labeled a disability, many Deaf adults see themselves as members of a unique, nondisabled culture [7]. Involvement with a Deaf community contributes positively to their self-esteem and social relationships. Members of the Deaf community reported no difference in the QOL (Quality of Life) dimension of social relationships compared with samples from the general population [8]. It is often assumed that adolescence is a very “difficult” period of life, with adolescents being highly stressed and moody. It is further assumed that adolescents are under stress because they have to cope with enormous changes in their lives. Some of these changes are in sexual behavior following puberty. There are also large social changes, with adolescents spending much more time with others of the same age and much less time with their parents than they did when they were younger. Adolescence is also a time at which decisions need to be made about the future. In addition to these difficulties, in this tough period, having a hearing disorder may make it even harder and problematic.

Deaf children have been estimated to be 1.5–2 times more vulnerable to mental health problems than hearing children [9]. The prevalence of mental health problems in community samples of deaf children is approximately 40% [10]. But it is estimated that only 2% of Deaf adults ever receive mental health care [11]. Other Studies of mental health among deaf children have shown higher rates of psychiatric disorders than in hearing comparison groups or samples of the general population, with rates ranging from 0 to 77% [12].

FACTORS THAT MAY CAUSE MENTAL DISORDERS AMONG PEOPLE WITH DEAFNESS

Age at Onset of Deafness or Hearing Loss

Age at which deafness or hearing loss occurs could affect an individual psyche. Acquired hearing loss may be considered part of the normal ageing process, whereas severe hearing impairment acquired in young or adult life may constitute a severe loss for the individual, often accompanied by reactions of grief, sadness, and depression [8]. The afflicted person has lived his or her life as a hearing person and identifies as such. The hearing loss requires the person to adapt to and cope with his or her new life situation. Hearing loss of any degree that is

acquired after early childhood involves challenges that are similar to, but also distinctly different from, those of individuals with congenital or childhood hearing loss.

Family Composition and Parental Education

The increased load of environmental stress of these children and adolescents clearly makes them vulnerable to mental health problems. Having parents with a low educational level is believed to be a risk factor for more mental health problems. The prevalence of parents having a low educational level is found to be higher amongst deaf and hard of hearing children than among their hearing peers [13]. Family composition might also affect the development of problems [13]. Having a one-parent family is believed to be associated with a higher burden of mental health problems, this is more prevalent in the families of the hard of hearing and deaf children, compared to the hearing children [13]. The rates of divorce are known to be higher when caring for a child with a handicap, and the challenges for these children are complex and highly variable. Being in a family with no siblings has been shown to increase the risk of mental health problems.

School

The person's choice between a mainstream school and a special school for the deaf or hard of hearing could impact on their mental health. Some discussants hold that life in a segregated school is likely to become a burden, whereas others consider it an advantage because communication is easier in an environment fluent in sign language. The latter also assume that the risk of being different than the others and being bullied is less in special schools, which facilitate attachment and development of identity.

However, a small study found a trend that total mental distress and peer problems were lower in mainstream schools for children with a high level of spoken language [14]. It has not yet been demonstrated that a high competence in sign language results in significantly lower prevalences of peer problems in special schools. The only prevalence study which found better figures in special schools has methodological shortcomings, i.e. the sample is small, based on a screening test using a questionnaire filled in by parents and teachers, the researcher chose who to interview, but interviewed only positively screened in schools of the deaf, and both negatively and positively screened children from the hearing impaired units. Thus, its findings may rely on methodological bias [15]. Close mentorship is likely to promote identification, assessment, and gratification of special needs, thereby adding to the feeling of competence and mental wellbeing in these children. The special schools often have fewer pupils and trained teachers who can address problems earlier than in a mainstream school. In some cases the schools could be placed at a fair distance away from the home of the children and their families.

No studies specifically investigate the effect of living away from home, but the findings that having no siblings and only one parent affect the mental health of the children negatively indicate that a strong social family relation is protective [16]. Mental health disorders seems to be higher among deaf. The core protective factor seems to be having positive peer relationships in school.

Physical Discipline and Abuse

A study has shown that hearing impaired children are more likely to be physically disciplined than their hearing peers. It has also been shown that the mental health of children who have been teased, maltreated or isolated are markedly decreased [17]. Furthermore, it has been found that these children are more likely to be victims of abuse, with a clearly additive negative influence on mental health [17].

Adolescents

Deaf children and adolescents are more vulnerable to mental health problems than hearing children [18]. Puberty is a tough time for all youth, and the hearing impaired and deaf seem to be particularly vulnerable to the challenges of this transitional period.

Communication

Good communication with family and peers seems to be a major predictor of good mental health in the referred studies [8]. Good communication within the family, with friends and others in the child's surroundings is accomplished when people in the surroundings are well trained in sign language. It seems crucial to be able to express thoughts and feelings, particularly in close relationships. Relational and behavioral problems are ameliorated through open communication, which promotes understanding of self and others and counteracts development of depressive thoughts and feelings. Not being understood within the family increases the risk of developing problems 4 times [19]. In line with this, a study found that children of parents that are hard of hearing or deaf themselves have less problems than children of parents with normal hearing [13]. Being able to communicate with hearing peers will make it easier to build social networks and relations. The number of words known is markedly decreased in populations with hearing impairments. Language development is often delayed. It has been shown that the hearing impaired command only half the vocabulary of a hearing person of the same age [8].

The results of the studies reviewed show that the choice of informants contributes to variations in reported prevalence. Most studies were based on questionnaires either to parents and teachers [19] or to teachers alone [20]. Hindley et al. were among the first to include a structured interview with the child and screening questionnaires to both parents and teachers [15]. So, children in this study were not representative of all deaf children in the community, and the prevalence rate of mental health disorders appeared to be rather high (50.3%). However, this study aims to find the prevalence of psychiatric morbidity among adolescent students with deafness in a Nigerian school for persons with special needs using a screening instrument on the selected sample of the affected population.

MATERIALS AND METHODS

Participants

This was an approved cross-sectional school-based study conducted among 105 adolescent students with deafness at Osun State Secondary School for Persons with Special Needs, Osogbo, Osun State, Nigeria.

Inclusion and Exclusion Criteria

The inclusion criteria were students with deafness i.e. above 90dB (Deaf Community/Culture), age between 13 to 19 years (adolescents). Those below 13 years and above 19 years were excluded. Also adolescents with dual sensory loss (deaf blindness) and those with mild, moderate and severe hearing loss were also excluded from the study.

Instrumentation

Otoscopy was performed on all the participants with HEINE mini 3000® otoscope to check for those with cerumen impaction and other middle ear pathologies. Thereafter, hearing assessment was done by a certified Audiologist with Interacoustic AD 629 Hybrid Diagnostic Audiometer to determine the hearing thresholds of the participants. Pure tone averages were determined by averaging frequencies 500Hz, 1000Hz, 2000Hz and 4000Hz for both AC and BC tests on both ears and were used to select the adolescents with deafness from adolescents with other degrees of hearing loss. On the other hand, General Health Questionnaire (GHQ 12) was

used to determine the prevalence of psychiatric morbidity among the participants. GCQ 12 is a screening instrument for identifying minor psychiatric disorder in the general population and within the community (non-psychiatric setting). It is suitable for all ages from adolescent upwards but not for children because it is self administered.

Procedure for Questionnaire Administration

The administration of questionnaires and scoring of the responses was spearheaded by the experts in the field (Psychiatrists) supported by co-researchers. After a brief introduction of our team, a brief explanation was also given to the participants from one class to the other with an expert in American Sign Language (ASL) interpreting to the students. The students responded to the questionnaires themselves after they read the brief instructions since it was a self administered questionnaire. The scoring of GHQ 12 is simple, any participant with score below 3 has negative psychiatric morbidity, that is, normal while those equal to or more than 3 (≥ 3) has positive psychiatric morbidity.

Statistical Analysis

Analysis of data was done with SPSS version 16. Results are summarized and displayed in tables, frequencies and percentages.

RESULTS

3.1 Table 1: Age Distribution

Age Category	Frequency	Percentage %	Minimum	Maximum	Mean	Std. Deviation
Early Adolescence*	4	3.8	13	19	17.45	1.50
Late Adolescence**	101	96.2				
Total	105	100.0				

* = 10 – 14 years ** = 15 – 19 years

The majority of the participants were late adolescents 96.2% (15 – 19 years), with a mean age of 17.45 years (SD = 1.50).

3.2 Table 2: Gender Distribution

Gender	Frequency	Percentage %
Male	60	57.1
Female	45	42.9
Total	105	100.0

There were 60 male and 45 female adolescent students with deafness that participated in the study. (M:F= 1.3:1).

Table 3: Prevalence of Psychiatric Morbidity

Psychiatric Morbidity	Frequency	Percentage %
Yes	25	23.8
No	80	76.2
Total	105	100.0

Table 3 above shows that 76.2 % were normal (negative psychiatric morbidity) while almost a quarter (23.8%) of the respondents had positive psychiatric morbidity.

DISCUSSION

Table 1 shows that the majority of the participants were late adolescents 96.2% (15 – 19 years), with a mean age of 17.45 years (SD = 1.50). The remaining 3.8% were early adolescents. This shows how the education of a child with deafness could be delayed. Some of these adolescents are still in Grade 7, that is, Junior Secondary School 1 (JSS 1) with an average age of 15 years. Majority of these students with deafness were in Grade 5 (Primary 5) when they entered adolescence age (13 years old). The reason is that most of these children with congenital deafness started schooling 3 years late compared with their hearing counterparts. Normally, a 6 year old child is supposed to be in Grade 1 (primary1) or higher but this is not so with a child with deafness, pupils in Grade 1 in a special school are around 9 years old or even more. There were students with deafness in the school where the study was conducted that were 24 years old, whereas, their hearing counterparts had already completed their degree and higher degree programmes. According to Ajavon, deafness in Nigeria is diagnosed very late in comparison to other countries. There is no systematic hearing screening programme for children at birth or later in life [21]. This is one of the reasons those children with deafness enroll late compare to their hearing counterparts.

It was also revealed in table 2 that more male adolescent students with deafness participated in this study than their female counterparts, that is, 57.1% and 42.9% respectively (M:F= 1.3:1).

According to the result in table 3, it was revealed that approximately 24% of the respondents had positive psychiatric morbidity. This is low compared with the study by Hindley [10], who found the prevalence of mental health problems in community samples of deaf children to be approximately 40%. However, the result from this present study is close to the National Statistics Online data which suggest that 15–20% of all deaf children have clinically significant mental health problems [9].

The results of the early clinical studies of DHH patients are not easy to compare because of differences in methodology. However, all the studies reported high percentages of severe mental disorders like schizophrenia (43%–54%) and organic mental disorders (19%–32%). It is notable that depression, if diagnosed at all, is only reported in 1.2% of patients until 1969 when two studies reported depression in 9.5% [22] and 9.6% of the patients [23]. The conclusion drawn by Vernon et al. in a review of these studies was that the overall prevalence of mental illness seemed to be significantly higher in the DHH population than in the general population [24].

Research findings suggest that not deafness as such, but other risk factors contribute to psychopathology in deaf adolescents [25]. National Health Interview Survey Series conducted a survey whereby they assessed the knowledge, attitudes, and beliefs in the deaf and hard-of-hearing community regarding mental health and mental illness. Their sample consisted of fifty-four deaf volunteers between eighteen-and seventy years old who preferred to communicate with American Sign Language (ASL). Results suggested that a few deaf individuals 9% (n =5) believed that deafness and hearing loss itself causes mental health problems. The participants overwhelmingly ascribed mental health problems to external causes, such as familial tribulations, own childhood, and poor communication. More specifically, 41% (n = 22) indicated that communication problems, family stresses, and the societal prejudice that accompany deafness and hearing loss leads to problems ranging from suicidal depression to substance abuse to violent behavior . The participants in this study identified communication barrier as the main cause of mental health problems [26].

CONCLUSIONS

Adolescent deaf students are at increased risk of mental health problems. This is as a result of the interplay between a range of factors. Early provision of effective communication within the family goes a long way to preventing many of these problems. Mental disorders may result from an individual's non-optimal coping strategies and patterns of adaptation to life experiences. Development of mental disorders may be viewed as part of the dynamic relation between the individual and his/her context [27]. A child with deafness whose family members are all hearing may be at risk because communication and language form the basis for the conceptual and emotional processing of experiences and events and therefore play a crucial role in preventing mental disorders. The quality of parent-child communication may have far-reaching consequences for parent-child emotional bonding and for the child's emotional, cognitive, and social development. Problems of language and communicative ability have been linked to the development of psychopathology in DHH people [28]. Clinicians working with deaf children with mental health problems need to be aware of their communication needs and of the developmental consequences of deafness. Adequate provision should be made to minimize these aforementioned barriers and also adequate specialist services that can provide skilled assessment and interventions for this disadvantaged group.

CONFLICTS OF INTEREST

No conflicts of interest were reported.

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RECOMMENDATIONS

- ❖ Provision of educational programmes on healthy relationships for adolescents with deafness.
- ❖ Family members should be encouraged to sign or use the preferred mode of communication even in private discussions in order to reduce communication and relationship problems.
- ❖ Mentors and coaches for adolescents with deafness are recommended.
- ❖ Accessible and prompt mental health care for adolescents with deafness that are in need of mental health services.

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