ORIGINAL RESEARCH PAPER

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# SEXUAL AWARENESS AMONG ADOLESCENTS WITH HEARING IMPAIRMENT: A CROSS-SECTIONAL SURVEY

**KEY WORDS:** Sexual awareness, hearing impairment, adolescents, sexuality education, life skills, gender differences, severity of hearing loss.

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**ABSTRACT**

The present study aimed to assess the level of sexual awareness among adolescents with hearing impairment and to examine whether sexual awareness differs according to the type and severity of hearing loss and gender. A survey research design was employed for the investigation. The sample comprised 53 hearing-impaired adolescents studying in Grade IX, who were selected through random sampling from secondary schools. Data were collected using a researcher-developed and standardized interview schedule designed to measure sexual awareness among adolescents with hearing impairment. The instrument demonstrated high reliability, with a test–retest reliability coefficient of 0.89. The collected data were analyzed using the Mann–Whitney U test to determine differences in sexual awareness across demographic and hearing-related variables. The findings revealed no significant difference in sexual awareness between adolescents with conductive hearing loss and those with sensorineural hearing loss. However, significant differences were observed with respect to the severity of hearing impairment and gender, indicating that these factors influence sexual awareness levels. The study highlights the need for comprehensive sexuality education and life-skills training tailored to the needs of hearing-impaired adolescents. Such interventions can enhance their understanding of sexuality, support informed decision-making, and contribute to their overall personal and social development.

## INTRODUCTION

Adolescence is widely recognized as a critical developmental stage marked by rapid physical, cognitive, emotional, social, and sexual transformations that collectively shape an individual's transition from childhood to adulthood (World Health Organization [WHO], 2023; Steinberg, 2017). During this developmental period, adolescents establish a stronger sense of personal identity, develop interpersonal relationships, and acquire knowledge, attitudes, and values related to sexuality and reproductive health (Erikson, 1968; WHO, 2023). Olumide et al. (2009) described adolescence as a period of physical, mental, psychosocial, and sexual maturation during which individuals refine their sex roles, self-concept, and relationships with both same-sex and opposite-sex peers. Healthy sexual and reproductive health awareness is therefore considered an integral component of adolescent development because it promotes informed decision-making, psychological well-being, and responsible social behaviour (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2018; WHO, 2023).

Human sexuality is a complex and multidimensional phenomenon influenced by the interaction of biological, psychological, cultural, social, and environmental factors (Nosek et al., 2001; WHO, 2010). The onset of puberty initiates physiological changes that influence sexual feelings and behaviours, while cultural norms, family values, religious beliefs, peer interactions, media exposure, and educational experiences significantly shape adolescents' sexual attitudes and behaviours (Nosek et al., 2001; UNESCO, 2018). Sexuality extends beyond biological characteristics and encompasses feelings, attitudes, identities, relationships, values, and behaviours associated with being male or female (Blaha, 2001; Jurkane-Hobein, 2015; WHO, 2010). Consequently, healthy sexual development requires adolescents to acquire accurate knowledge while developing socially appropriate attitudes, interpersonal competencies, and responsible behavioural practices (UNESCO, 2018; WHO, 2010).

Comprehensive sexuality education has been widely acknowledged as an essential component of adolescent health promotion because it enables young people to understand the physical, emotional, and psychological changes associated with puberty while fostering responsible attitudes toward relationships and sexual behaviour (UNESCO, 2018; WHO, 2023). Empirical studies indicate that adolescents benefit substantially from receiving scientifically accurate, age-appropriate, and culturally sensitive information regarding sexuality, reproductive health, consent, personal safety, and interpersonal relationships (Sprecher et al., 2008; Popoola, 2011; UNESCO, 2018). Such educational interventions have been shown to improve sexual knowledge, promote informed decision-making, reduce risky sexual behaviours, prevent sexual abuse and exploitation, and encourage healthy relationships based on respect and responsibility (Kirby, 2007; UNESCO, 2018; WHO, 2023).

The growing international emphasis on inclusive education has reinforced the importance of addressing the holistic developmental needs of learners with disabilities, including their physical, emotional, social, and sexual well-being (United Nations, 2006; UNESCO, 2020). Inclusive education advocates equitable access to educational opportunities that accommodate the diverse needs of all learners regardless of disability status (UNESCO, 2020). Although substantial research has focused on improving academic achievement, language development, communication skills, and educational inclusion among students with hearing impairment, comparatively little scholarly attention has been devoted to sexuality education and sexual health awareness within this population (Marschark & Spencer, 2011; WHO, 2011).

Adolescents with hearing impairment experience biological maturation, hormonal changes, emotional development, and sexual curiosity similar to those of their hearing peers (WHO, 2011; Olumide et al., 2009). However, communication barriers frequently restrict their access to accurate and comprehensive information regarding sexual development, reproductive health, interpersonal relationships, and personal safety (Groce & Trasi, 2004; WHO, 2011). In many educational settings, sexuality education remains a sensitive subject, and teachers often report insufficient training, confidence, instructional resources, and communication strategies necessary for addressing the unique learning needs of students with hearing impairment (UNESCO, 2018; WHO, 2011). Consequently, adolescents with hearing impairment may depend on incomplete, informal, or inaccurate sources of information, thereby increasing the likelihood of misconceptions and inadequate sexual awareness (Groce & Trasi, 2004; Olumide et al., 2009).

Access to sexual and reproductive health information among

adolescents with hearing impairment is further constrained by limited availability of accessible instructional materials, inadequate use of sign language, communication challenges within families, and insufficient specialized educational interventions (WHO, 2011; UNESCO, 2020). Because hearing impairment often reduces opportunities for incidental learning through everyday conversations, media exposure, and peer interactions, adolescents may encounter considerable difficulties in acquiring essential knowledge regarding puberty, sexual development, personal boundaries, reproductive health, and healthy interpersonal relationships (Groce & Trasi, 2004; Marschark & Spencer, 2011). These barriers place adolescents with hearing impairment at increased risk of misinformation, exploitation, inappropriate sexual behaviours, and reduced confidence in managing sexual and reproductive health issues (WHO, 2011; UNESCO, 2018).

Sexual awareness constitutes a fundamental dimension of adolescent development because it supports healthy decision-making, personal safety, emotional well-being, and positive social adjustment (WHO, 2023; UNESCO, 2018). Nevertheless, adolescents with hearing impairment continue to experience substantial inequities in accessing comprehensive sexuality education due to communication difficulties, societal misconceptions regarding disability and sexuality, limited instructional resources, and inadequate curriculum adaptations (Groce & Trasi, 2004; WHO, 2011). These barriers may significantly restrict their understanding of sexual development, consent, reproductive health, and socially appropriate sexual behaviour, thereby limiting opportunities for healthy psychosocial development (UNESCO, 2018; WHO, 2011).

Although adolescents with hearing impairment experience developmental trajectories comparable to those of hearing adolescents, empirical investigations focusing specifically on their level of sexual awareness remain relatively scarce (Groce & Trasi, 2004; Marschark & Spencer, 2011). Consequently, limited evidence exists regarding the extent of their sexual knowledge and the influence of demographic and disability-related characteristics such as gender, severity of hearing loss, and type of hearing impairment on sexual awareness (WHO, 2011; UNESCO, 2020). The absence of robust empirical evidence poses challenges for educators, parents, counsellors, and policymakers seeking to design effective sexuality education programmes tailored to the needs of this population (UNESCO, 2018). Furthermore, previous research has consistently demonstrated that avoiding discussions related to sexuality neither delays sexual development nor eliminates sexual curiosity; instead, inadequate knowledge may increase vulnerability to misconceptions, unsafe behaviours, exploitation, abuse, and poor decision-making (Kirby, 2007; UNESCO, 2018; Popoola, 2011). Therefore, there is a compelling need to investigate sexual awareness among adolescents with hearing impairment and identify the demographic and disability-related factors associated with variations in awareness.

The present study is situated within the broader domains of adolescent development, inclusive education, disability studies, and health education (UNESCO, 2020; WHO, 2023). By examining sexual awareness among adolescents with hearing impairment, the study seeks to enhance understanding of their developmental characteristics, educational experiences, and sexuality-related learning needs (WHO, 2011; Marschark & Spencer, 2011). More specifically, the investigation examines whether sexual awareness differs according to gender, severity of hearing loss, and type of hearing impairment, thereby generating empirical evidence that may guide educational planning, curriculum development, and inclusive educational practice (UNESCO, 2018; WHO, 2011).

The primary purpose of this study is to determine the extent of sexual awareness among adolescents with hearing impairment. In addition, the study seeks to examine differences in sexual awareness based on gender, severity of hearing loss, and type of hearing impairment. By identifying existing levels of awareness and potential knowledge gaps, the study aims to generate evidence that may support the development of effective educational interventions, inclusive sexuality education programmes, and appropriate learner support services (UNESCO, 2018; WHO, 2023).

The study is significant because it addresses a relatively underexplored dimension of adolescent development among learners with hearing impairment (Groce & Trasi, 2004; WHO, 2011). It contributes empirical evidence regarding the level of sexual awareness among hearing-impaired adolescents and identifies demographic and disability-related factors associated with variations in awareness. The findings are expected to support the development of evidence-based sexuality education programmes, strengthen inclusive educational practices, and inform educational policies aimed at promoting the health, well-being, dignity, and social inclusion of adolescents with hearing impairment (UNESCO, 2018; UNESCO, 2020; WHO, 2023). Furthermore, the study contributes to the broader objective of ensuring equitable access to comprehensive health and sexuality education for all learners irrespective of disability status, consistent with international commitments to inclusive and quality education (United Nations, 2006; UNESCO, 2020).

The study also contributes to the expanding body of scholarship on disability studies, adolescent development, sexuality education, and inclusive education by addressing an important gap in existing literature (Marschark & Spencer, 2011; WHO, 2011). Given the limited empirical evidence specifically focusing on sexual awareness among adolescents with hearing impairment, the findings provide valuable insights into their educational, developmental, and psychosocial needs. Moreover, the study advances scholarly understanding of how demographic variables and disability-related characteristics influence sexual awareness and thereby establishes a foundation for future research in special and inclusive education (UNESCO, 2020; WHO, 2023).

Educational leaders play a pivotal role in ensuring that schools provide holistic educational experiences addressing learners' cognitive, emotional, social, physical, and sexual development (UNESCO, 2020; WHO, 2023). The findings of this study may assist school administrators, special educators, counsellors, curriculum developers, and policymakers in designing inclusive sexuality education programmes that effectively accommodate the communication needs of students with hearing impairment (UNESCO, 2018; WHO, 2011). The study further underscores the importance of teacher preparation, curriculum adaptation, accessible instructional materials, family involvement, and life-skills education in promoting healthy adolescent development, protecting vulnerable learners, and fostering inclusive educational environments (UNESCO, 2018; United Nations, 2006).

## Aim

The overall aim of this study is to investigate the level of sexual awareness among adolescents with hearing impairment and examine differences based on gender, severity of hearing loss, and type of hearing impairment.

## Objectives

1. To determine the extent of sexual awareness among adolescents with hearing impairment.
2. To examine the difference in sexual awareness between male and female adolescents with hearing impairment.
3. To investigate the difference in sexual awareness between adolescents with severe hearing loss and those with profound hearing loss.

4. To examine the difference in sexual awareness between adolescents with conductive hearing loss and those with sensorineural hearing loss.

**Research Questions**

1. What is the extent of sexual awareness among adolescents with hearing impairment?
2. Is there a significant difference in sexual awareness between male and female adolescents with hearing impairment?
3. Is there a significant difference in sexual awareness between adolescents with severe hearing loss and those with profound hearing loss?
4. Is there a significant difference in sexual awareness between adolescents with conductive hearing loss and those with sensorineural hearing loss?

## MATERIALS AND METHODS

Methodology of the study refers to the plan or design, which is carried out to find the answer for research questions and testing the hypotheses in the study (Cohen et al., 2017). The methodology of this study comprises of research design, population and sampling, survey instrument used in this study, procedure of data collection and data analysis. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, it constitutes the blueprint for the collection, measurement, and analysis of data (Cohen et al., 2017) (Kothari, C and Garg, 2014). In this study, the researcher utilised diagnostic cum descriptive research design to understand the extent of sexual awareness among adolescents with hearing impairment.

A group of 53 adolescents with hearing impairment, who were studying 9$^{th}$ class in four higher secondary schools of Chennai, were selected for the present study, using purposive sampling technique. There were 34 (64.2%) adolescents with hearing impairment are males and 19 (35.8%) female adolescents with hearing impairment are females. The majority of the adolescents with hearing impairment are males. In the type of hearing loss category, 38 (71.7%) adolescents with hearing impairment had conductive hearing loss and 15 (28.3%) adolescents with hearing impairment had sensorineural hearing loss. In degree of hearing loss category, 29 (54.7%) adolescents with hearing impaired had severe hearing loss and 24 (45.3%) adolescents with hearing impairment had profound hearing loss. (See Table 1 for descriptive participant characteristics).

**Table 1: Demographic Characteristics of Adolescents with Hearing Impairment**

| Samples | Sub Samples | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 34 | 64.2 |
| | Female | 19 | 35.8 |
| Types of Hearing Loss | Conductive Hearing Loss | 38 | 71.7 |
| | Sensorineural Hearing Loss | 15 | 28.3 |
| Degrees of Hearing Loss | Severe | 29 | 54.7 |
| | Profound | 24 | 45.3 |

**Note. Field Survey**

Data were collected by means of an interview schedule consisting of demographic characteristics and factors related to the sexual awareness among adolescents with hearing impairment. This interview schedule consists of 36 questions with yes or no type of responses. The development of the interview schedule on sexual awareness among hearing impaired was informed by earlier studies on sexual awareness and sexuality. These questions were constructed, after a thorough discussion and consultation with two subject experts in the field of sexuality. Content validity, item validity and intrinsic validity were established for this interview schedule. The test-retest coefficient was found to be 0.89.

After the development and validation of the interview schedule, the interview was conducted with 53 adolescents with hearing impairment, after getting due permission and consents from the principals of deaf schools and parents of the adolescents with hearing impairment. The researcher visited each higher secondary school with hearing impaired in Chennai for collecting data. Adolescents with hearing impairment were requested to report their name, sex, type of hearing loss and degree of hearing loss as well as to answer the questions, which are related to their sexual awareness. For the analyses and interpretations of the data, the researcher utilized Mann Whitney U test (Mayers, 2013).

## RESULTS

From the table 2, it is inferred that majority of adolescents with hearing impairment aware on human physiology, menstruation, and sexual abuse, whereas the awareness on birth process, socialisation, and sex education is very poor among adolescents with hearing impairment, and finally adolescents with hearing impairment moderately aware about marriage. Overall, the analysis revealed that adolescents with hearing impairment are not fully aware about sex. From the analysis, it is identified that only 40% of the adolescents with hearing impairment from the total sample of 53 were aware about sex.

**Table 2:Number of Respondents on the Aspects of Sexual Awareness**

| S.No. | Aspects of Sexual Awareness | No. of Respondents | |
|---|---|---|---|
| | | Yes (%) | No (%) |
| 1 | Awareness about human physiology | 40 (75.5) | 13 (24.5) |
| 2 | Awareness about menstruation | 30 (56) | 23 (44) |
| 3 | Awareness with regard to birth process | 15 (28) | 38 (72) |
| 4 | Awareness regarding marriage | 24 (45) | 29 (55) |
| 5 | Awareness regarding socialisation | 10 (19) | 43 (81) |
| 6 | Awareness regarding sexual abuse | 38 (72) | 15 (28) |
| 7 | Awareness regarding sex education | 7 (13) | 46 (87) |

**Source: Field Survey**

**Hypothesis 1**

There is no significant difference in sexual awareness between male and female adolescents with hearing impairment

**Table 3:Difference in Sexual Awareness between Male and Female**

| Gender | Mean | SD | Z | Sig. |
|---|---|---|---|---|
| Male | 42.40 | 4.24 | 3.190 | 0.00* |
| Female | 29.73 | 14.28 | | |

**Note. *Significant at 0.05 level**

It is inferred from the table 3 that the obtained Z value 3.190 is greater than the table value at 0.05 level, found to be significant. Hence the null hypothesis 1 is rejected. Therefore, it is inferred that there is a significant difference between male and female adolescents with hearing impairment in their sexual awareness. In other words, males with hearing impairment are aware more about sex than females with hearing impairment.

**Hypothesis 2**

There is no significant difference between adolescents with severe hearing loss and profound hearing loss in their sexual

awareness.

**Table 4:Difference in Sexual Awareness between Adolescents with Severe Hearing Loss and Profound Loss**

| Degree of Hearing Loss | Mean | SD | Z | Sig. |
|---|---|---|---|---|
| Severe | 44.21 | 6.87 | 3.211 | 0.00* |
| Profound | 29.60 | 15.66 | | |

**Note = *Significant at 0.05 level**

It is inferred from the table 2 that the obtained Z value 3.211 is greater than the table value at 0.05 level, found to be significant. Hence the null hypothesis 2 is rejected. Therefore, it is inferred that there is a significant difference between adolescents with severe and profound hearing loss in their sexual awareness. In other words, adolescents with severe hearing loss have known more about sex than adolescents with profound hearing loss. See Table 4 for the results of hypothesis 2.

**Hypothesis 3**

There is no significant difference between adolescents with conductive and sensorineural hearing loss.

**Table 5:Difference in Sexual Awareness between Adolescents with Conductive and Sensorineural Hearing Loss**

| Degree of Hearing Loss | Mean | SD | Z | Sig. |
|---|---|---|---|---|
| Conductive Loss | 45.26 | 6.72 | 3.950 | 0.00* |
| Sensorineural Loss | 27.05 | 13.23 | | |

**Note. *Significant at 0.05 level.**

It is inferred from the table 5 that the obtained Z value 3.950 is greater than the table value at 0.05 level, found to be significant. Hence the null hypothesis 3 is rejected. Therefore, it is inferred that there is a significant difference between adolescents with conductive and sensorineural hearing loss in their sexual awareness. In other words, adolescents with conductive hearing loss have known more about sex than adolescents with sensorineural hearing loss. See Table 5 for the results of hypothesis 3.

**DISCUSSION**

The findings of the present study revealed that adolescents with hearing impairment demonstrated relatively higher levels of awareness regarding human physiology, sexual abuse, and menstruation, whereas comparatively lower levels of awareness were observed in areas related to sex education, socialization, marriage, and the birth process. These findings are consistent with earlier studies, which reported that adolescents with hearing impairment generally possess better knowledge of biological aspects of sexuality than of social, interpersonal, and reproductive dimensions (Shekhar et al., 2007; Gupta, 2012). This pattern suggests that knowledge related to human anatomy and physiological development is more readily acquired than information concerning relationships, marriage, reproductive processes, and responsible sexual behaviour (Gupta, 2012; UNESCO, 2018).

The comparatively higher awareness of human physiology and menstruation may be attributed to the inclusion of these topics within the formal school curriculum, particularly in science and health education subjects, where biological concepts are systematically taught irrespective of disability status (Shekhar et al., 2007; UNESCO, 2018). Classroom instruction provides structured opportunities for adolescents with hearing impairment to learn about bodily changes associated with puberty through visual materials, adapted teaching methods, and curriculum-based learning experiences (WHO, 2023; UNESCO, 2018). Consequently, biological aspects of sexuality are often better understood than psychosocial and reproductive health topics, which receive comparatively less emphasis within formal educational programmes (Gupta, 2012; WHO, 2010).

In contrast, the relatively lower awareness regarding marriage, childbirth, and broader sexuality education indicates significant gaps in adolescents' understanding of reproductive health and interpersonal relationships (Gupta, 2012; Shekhar et al., 2007). Previous research has similarly demonstrated that adolescents with hearing impairment frequently receive inadequate information regarding marriage, family life, reproductive processes, contraception, and responsible sexual relationships because these topics are often considered culturally sensitive and are insufficiently addressed within school curricula (Lakshmi et al., 2007; UNESCO, 2018). Limited access to accurate reproductive health information may therefore restrict adolescents' preparedness for healthy adult relationships and informed life decisions (WHO, 2023; UNESCO, 2018).

The findings further support earlier observations that many adolescents with hearing impairment perceive a need for strengthening sexuality education within the school curriculum (Shekhar et al., 2007). Comprehensive sexuality education has been widely recommended as an essential component of inclusive education because it equips young people with scientifically accurate, age-appropriate, and culturally relevant knowledge regarding sexuality, relationships, consent, reproductive health, and personal safety (UNESCO, 2018; WHO, 2023). The inclusion of structured sexuality education within special and inclusive educational settings may therefore enhance adolescents' knowledge, promote healthy decision-making, and reduce misconceptions associated with sexuality (Kirby, 2007; UNESCO, 2018).

Previous studies have also reported that adolescents with hearing impairment expect schools to provide opportunities for healthy social interaction between boys and girls, thereby facilitating appropriate interpersonal communication and relationship development (Lakshmi et al., 2007). Social interaction represents an important source of informal learning about relationships, emotional development, and social norms during adolescence (Steinberg, 2017; UNESCO, 2018). However, opportunities for such interaction may be restricted in special educational settings because of institutional regulations, parental concerns, or cultural expectations, thereby limiting adolescents' exposure to healthy relationship experiences (Lakshmi et al., 2007; WHO, 2011).

Consistent with previous findings, male adolescents with hearing impairment in earlier studies reported experiencing restrictions in communicating with female peers (Shekhar et al., 2007). Such restrictions may reduce opportunities for natural socialization and contribute to inadequate understanding of gender relationships, mutual respect, and appropriate interpersonal behaviour during adolescence (UNESCO, 2018; WHO, 2010). Healthy peer interactions are recognized as an important component of psychosocial development because they facilitate the acquisition of communication skills, empathy, and responsible social behaviour (Steinberg, 2017; Erikson, 1968).

The lower levels of awareness regarding marriage and the birth process may also reflect limited exposure to family life education and reproductive health discussions within both school and home environments (Gupta, 2012; Lakshmi et al., 2007). Adolescents with hearing impairment often receive less incidental learning through everyday conversations because communication barriers restrict access to informal discussions occurring within families and communities (Groce & Trasi, 2004; WHO, 2011). Consequently, important concepts related to marriage, pregnancy, childbirth, and reproductive health may remain poorly understood unless they are explicitly taught through accessible educational programmes (UNESCO, 2018; WHO, 2023).

Teachers have likewise acknowledged several challenges in teaching sexuality-related topics to adolescents with hearing impairment, including insufficient instructional resources, limited professional preparation, communication barriers, and cultural sensitivity surrounding discussions of sexuality (WHO, 2011; UNESCO, 2018). Many educators remain uncertain about the most appropriate pedagogical approaches for teaching reproductive health within special education settings, thereby limiting the comprehensiveness of sexuality education provided to these learners (UNESCO, 2020; WHO, 2011). These findings highlight the need for specialized teacher training, accessible instructional materials, and curriculum adaptation to ensure that sexuality education effectively addresses the developmental needs of adolescents with hearing impairment (UNESCO, 2018).

The present study further indicated that male adolescents with hearing impairment demonstrated relatively higher levels of sexual awareness than their female counterparts. Similar findings have been reported in some previous studies, which observed greater sexual awareness among male adolescents than female adolescents with hearing impairment (Lakshmi et al., 2007). One possible explanation relates to gender differences in access to sexual information, whereby males may experience greater freedom to discuss sexuality with peers and access information through informal social networks (WHO, 2010; UNESCO, 2018). Ohri et al. (2019) also suggested that gender differences in emotional development, communication patterns, and social experiences may influence adolescents' perceptions and awareness of sexuality.

Nevertheless, the existing literature presents inconsistent evidence regarding gender differences in sexual awareness. Several researchers have reported that biological sex alone does not significantly determine sexual knowledge or attitudes and that educational opportunities, family communication, cultural norms, and social experiences exert a greater influence on adolescents' sexual awareness than gender itself (Crowe, 2003; Groce et al., 2006; Groce et al., 2007). Similarly, Harvey's findings indicated that gender was not a statistically significant predictor of sexual awareness, suggesting that environmental and educational factors may be more influential than biological sex in shaping adolescents' understanding of sexuality. These contrasting findings imply that gender differences in sexual awareness are likely to be context-dependent and mediated by cultural, educational, and family environments rather than by gender alone (UNESCO, 2018; WHO, 2010).

Some earlier investigations have reported that female adolescents with hearing impairment possessed comparatively lower levels of sexual awareness, particularly regarding reproductive health and interpersonal relationships (Lakshmi et al., 2007). Conversely, Groce et al. (2007) found that female adolescents often expressed greater expectations regarding relationships and sexuality despite possessing limited factual knowledge. These findings suggest that awareness and attitudes toward sexuality may not always develop simultaneously and that educational interventions should address both cognitive understanding and psychosocial development (Groce et al., 2007; UNESCO, 2018). Furthermore, Ohri et al. (2019) reported that male teachers demonstrated greater confidence than female teachers in addressing sexuality-related issues, indicating that teacher characteristics may also influence the quality and effectiveness of sexuality education delivered to adolescents.

Another important finding of the present study was that adolescents with conductive hearing loss demonstrated higher levels of sexual awareness than those with sensorineural hearing loss. This finding may be associated with differences in the severity and functional consequences of hearing loss, as adolescents with less severe hearing impairment generally experience greater communication opportunities and increased participation in mainstream social environments (WHO, 2021; Marschark & Spencer, 2011). Greater interaction with hearing peers, teachers, and community members may facilitate access to accurate information regarding sexuality and reproductive health through both formal and informal learning experiences (UNESCO, 2020; WHO, 2011).

Earlier studies have similarly suggested that adolescents with profound or sensorineural hearing loss often experience greater communication barriers, reduced social participation, and limited opportunities to discuss sensitive issues such as sexuality with hearing individuals (Lakshmi et al., 2007; Groce & Trasi, 2004). Communication difficulties may reduce trust and confidence in discussing personal issues with hearing peers and adults, thereby restricting opportunities for acquiring accurate sexual knowledge (WHO, 2011). Consequently, adolescents with severe hearing loss may rely primarily on limited sources of information, increasing the likelihood of misconceptions and inadequate sexual awareness (Groce & Trasi, 2004; UNESCO, 2018).

Overall, the findings of the present study reinforce previous research demonstrating that adolescents with hearing impairment possess relatively better knowledge of biological aspects of sexuality than of reproductive health, interpersonal relationships, and family life education (Shekhar et al., 2007; Gupta, 2012). The results further underscore the importance of implementing comprehensive, accessible, and inclusive sexuality education programmes that address the diverse communication needs of adolescents with hearing impairment. Such programmes should be supported through curriculum reform, teacher professional development, accessible learning materials, family involvement, and inclusive educational policies to ensure that all adolescents receive equitable opportunities to develop healthy sexual awareness and responsible decision-making skills (UNESCO, 2018; UNESCO, 2020; WHO, 2023)

## CONCLUSION

Results have shown that adolescents with hearing impairment do not aware much about the sex and its related problems. Moreover, female adolescents with hearing impairment lack behind male adolescents with hearing impairment towards sexual awareness. Further, the hearing loss as a factor not significantly affects their understanding about sex and its related issues. This trend indicates that the adolescents with hearing impairment not fully aware about the sex. This study suggested that adolescents with hearing impairment should be given opportunity to learn and understand or aware about sex and its related issues or problems.

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