



"Exploring The Nexus: Self-Disclosure Patterns And Suicidal Ideation Among Hearing Impaired Adolescents From Special Vs. Inclusive Educational Systems"

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Abstract

This study aimed to explore the impact of education type (inclusive or special) on self-disclosure and suicidal ideation among congenitally hearing-impaired adolescents. The study used two standardized instruments, the Self-disclosure Inventory by Sinha (1971) and the Suicidal Ideation Scale developed by Sisodia and Bhatnagar (2011), to gather data from 80 hearing-impaired adolescents studying in inclusive and special schools. The Mann Whitney U test was used to analyze the results. The results showed a significant difference in self-disclosure and suicidal ideation between hearing-impaired adolescents in special and inclusive schools. These findings highlight the importance of education system in shaping mental health outcomes among hearing-impaired adolescents and suggest that inclusive education may be more beneficial in promoting self-disclosure and reducing suicidal ideation in this population.

Key words: Self-Disclosure, Suicidal Ideation, Hearing Impairment, Special and Inclusive Education

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Introduction

Hearing impairment is a widespread disability that affects millions of people globally & presents a significant challenge to their quality of life. It can impact an individual's ability to communicate, participate in daily activities, and access education and employment opportunities. This highlights the need for effective support and rehabilitation services, as well as the importance of addressing hearing impairment as a major public health issue. Approximately 5% of the world's population, or 430 million individuals, require rehabilitation services to address their hearing loss, which is considered to be "disabling." This number includes 432 million adults and 34 million children (World Health Organization 2021). It is estimated that by 2050, the number of people with disabling hearing loss will increase to 700 million, or approximately one

in every ten people (World Health Organization, 2021). This highlights the importance of addressing hearing loss as a major public health issue and providing access to rehabilitation services to those in need. Hearing loss is defined as a loss of greater than 35 decibels (dB) in the better hearing ear. A large proportion of individuals with disabling hearing loss, which affects their ability to communicate and participate in daily activities, live in low- and middle-income countries, accounting for nearly 80% of all cases (World Health Organization 2021). In India, the prevalence of disabling hearing loss (DHL) has increased from 6.3% in 1997 to 100 million in 2018 (Gupta et al. 2021). South Asia region, which includes India, has the highest burden of DHL, with 7.37% of the population and 2.4% of all children suffering from DHL (Gupta et al. 2021). Chadha et al. (2002) found that

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loss to be the second most common cause of disability and the top cause of sensory deficit, with 291 out of 100,000 persons surveyed having HL. The 2011 Indian Census reported that 2.21% of the Indian population was affected by some disability, with the three most common being locomotor (20%), vision (19%), and hearing (19%) disabilities (Verma, Konkimalla, Thakar, Sikka, Singh & Khanna, 2021). Hearing impairment affected 0.3% of the population, with 49.8% reporting difficulty in hearing day-to-day conversational speech or inability to hear at all (The National Sample Survey, 2018).

Studies have shown that hearing impairment can have negative impacts on various developmental areas in children, including speech, intelligence, language, psychological development, and educational achievement (Kodiango&Syomwene, 2016; Ndurumo, 1993). A study by Agyire-Tettey et al. (2017) found that institutional barriers, such as difficulties in accessing reading materials, availability of facilities, and limitations in teaching, curricular content, and instructional processes, can negatively affect the academic performance of individuals with hearing impairment. This highlights the importance of providing supportive resources and removing barriers to ensure that individuals with hearing impairments have equal access to education and opportunities for growth and development.

The study by Agyire-Tettey et al. (2017) also revealed that negative attitudes from the community towards individuals with hearing impairments were a major challenge faced by students. These negative attitudes can lead to feelings of self-pity, anxiety, and isolation, negatively affecting students' ability to concentrate and succeed in their studies. This highlights the need for increased awareness and education about hearing impairment, and for promoting positive attitudes and inclusive environments for individuals with hearing impairments.

The absence of adequate educational resources and the scarcity of research data specifically focused on disabilities pose significant

obstacles to the goal of providing inclusive and quality education for individuals with disabilities on a global scale (UNESCO, 2020)

The United Nations (UN, 2019) has identified this as a significant challenge and highlighted the need for increased investment in research and resources to support the education and development of individuals with disabilities. This includes the need for educational materials that are accessible and inclusive for all learners, as well as data and research that accurately reflects the experiences and needs of individuals with disabilities.

Children with hearing impairments are educated in a variety of educational settings, with special education being a traditional approach designed to cater to the unique needs of students with disabilities (UNESCO, 2017). Special education aims to equip these students with the necessary tools and skills for academic and social growth, often involving curriculum modifications, assistive technology, and specialised instruction from trained educators (Education Commission of the states, 2021). Legal frameworks, such as the individuals with disabilities education act (IDEA) in the united states, govern the provision of special education services (U.S Department of Education, n.d)

To ensure comprehensive support and resources availability, crucial professional roles such as special educational needs coordinators (SENCOs), teachers specializing in hearing impairments, and educational audiologists collaborate to deliver personalized assistance for children with hearing impairments (Lewis & Norwich, 2014). These professionals work in tandem to facilitate individualized accommodations and ensure an inclusive educational experience. Inclusive education serves as another important approach for students with hearing impairments, promoting their integration into mainstream classrooms while offering tailored support services (UNESCO, 2017). This strategy involves the utilization of assistive technology like hearing aids, cochlear implants, and FM systems, along with sign language interpretation and captioning services (Punch & Hyde, 2017). Teachers may receive

specialized training and employ modified teaching methods, such as visual aids and interactive activities, to create an inclusive learning environment (Hall et al., 2015). The core objective of inclusive education for students with hearing impairments is to provide equitable access to education and foster their social inclusion and active participation within the classroom and school community (UNESCO, 2017).

The active participation of all students, including those with hearing impairments, is an indicator of successful learning in inclusive classes (Antia et al., 2007). Effective communication between teachers and students and among students is crucial in the learning process and contributes to academic success (Stinson & Antia, 1999). However, students with hearing impairments may face challenges in communication and participation in the classroom due to their hearing impairment (Iglesias et al., 2014). This can result in differences in abilities between these students and their peers, causing difficulties in following and understanding learning materials (Kawabe et al., 2014). Despite good social interaction, the participation of students with hearing impairments in inclusive classes may not be as strong as their interactions outside of the classroom. Suicidal ideation, a grave mental health concern, encompasses the presence of thoughts or emotions relating to the desire to terminate one's own life (Mann et al., 2005). This distressing phenomenon affects individuals across diverse backgrounds, including those who experience hearing impairments. The presence of hearing impairments does not exclude individuals from the potential vulnerability to suicidal ideation, highlighting the significance of addressing this issue within this specific population. Hearing impairments can lead to a range of challenges, including social isolation. Results study conducted by Patel et al. (2021) indicated a higher prevalence of social isolation and loneliness among individual with hearing impairments. The experience of loneliness and social isolation is frequently attributed to the significant barrier of impaired communication. Hearing impairments can profoundly constrain an individual's capacity to partake in social interactions and foster connections,

consequently fostering sentiments of isolation and loneliness (Cosh et al., 2020). The hurdles associated with effective communication, limited engagement in social activities, and constrained access to information and resources collectively culminate in these distressing emotions. These adversities can subsequently elevate the susceptibility to mental health issues, notably depression and even contemplation of suicide. Research underscores that individuals grappling with hearing impairments are susceptible to heightened rates of depression and other psychological concerns in comparison to their counterparts without such without such impairments (Rajan & Bellis, 2010). This augmented vulnerability to mental health challenges significantly escalates the potential for the emergence of suicidal ideation.

For hearing-impaired adolescents, the process of self-disclosure can be more challenging due to communication barriers and limited opportunities for social interaction (Davidsson & Petersson, 2018). Adolescents with hearing impairments may experience social isolation, difficulties in communication, and limited access to information and resources, which can affect their ability to form close relationships and engage in self-disclosure (Olsson, Dag, & Kullberg, 2021). It is important for hearing-impaired adolescents to have access to supportive environments where they can engage in self-disclosure and form close relationships. This may include support from family, peers, and mental health professionals, as well as access to resources and activities that promote social interaction and self-expression (Terlektsi, Kreppner, Mahon, Worsfold, & Kennedy, 2020). Self-disclosure plays a pivotal role in the developmental journey of adolescents, serving as a mechanism for forming relationships and fostering emotional growth (Rotenberg, 1994). However, hearing-impaired adolescents encounter distinct challenges within this intricate process due to the intricate interplay between their communication barriers and the need for social connections.

Need of the study

The alarming rate of increase in population with congenital hearing impairment demands

proper studies and research to explore the mental health and related issues among them. Education is a significant aspect of life, and the type of education one receive can have profound effects on one's development. By studying the impact of educational settings, researchers can gain insights into how inclusive and special education environments influence the psychological well-being of hearing-impaired adolescents. Research in this area can help identify protective factors within different educational systems that promote positive mental health outcomes. For example, it can reveal whether inclusive education fosters a sense of belonging and acceptance among hearing-impaired students, potentially reducing feelings of isolation and suicidal ideation. Hearing-impaired adolescents may face unique challenges related to communication, social integration, and self-esteem. Understanding the role of education in mitigating or exacerbating these challenges can inform policies and interventions aimed at reducing mental health disparities among this population.

METHODPROBLEM

To Compare self- disclosure and Suicidal Ideation of hearing-Impaired Adolescents between Special and Inclusive Schools

OBJECTIVES

- To Compare self- disclosure of hearing-Impaired Adolescents between Special and Inclusive Schools
- To Compare Suicidal Ideation of hearing-Impaired Adolescents between Special and Inclusive Schools
- To Compare self- disclosure between Hearing-Impaired girls and boys.
- To Compare Suicidal Ideation between Hearing-Impaired girls and boys.

HYPOTHESES:

- There will be no significant difference of self-disclosure in hearing-Impaired Adolescents between Special and Inclusive Schools
- There will be no significant difference of Suicidal Ideation in hearing-Impaired Adolescents between Special and Inclusive Schools
- There will be no significant difference of self-

disclosure between hearing impaired girls and boys.

- There will be no significant difference of suicidal ideation between hearing impaired girls and boys.

VARIABLES

Independent VARIABLES

Education system:

- Inclusive education
- Special education

Gender:

- Girls
- Boys

Dependent Variables

- Self-disclosure
- Suicidal ideation

SAMPLE

This study was conducted on 80 congenitally hearing-impaired adolescents, with 40 males and 40 females, selected from various inclusive and special schools in the Mathura, Agra, Noida, and Delhi regions. The age range of the participants was 16 to 19 years. Participants with comorbidities, or additional medical conditions, were excluded from the study. The sample was matched based on age, gender, and class, to ensure that the study participants were similar in these factors. The purposeful selection of the sample and matching of participants on certain criteria helps to control for extraneous variables and improve the validity of the study results.

Inclusion Criteria

- Students of either special or inclusive schools
- Students with congenital hearing impairment of severe to profound level.
- Students who acquired at least high secondary.

Exclusion Criteria

- Students with any other comorbidity

TOOLS

- The Suicidal Ideation Scale (SIS) developed by Sisodia and Bhatnagar (2011) was used to assess the presence and severity of suicidal thoughts and behaviors in individuals. The

scale is designed to be used with individuals over the age of 16, and includes items related to suicidal ideation, plans, and attempts.

- The Self-Disclosure Inventory (SDI) was used in the study. It is a psychological measure developed by Sinha (1971) to assess an individual's willingness and comfort level with sharing personal information and feelings with others. The SDI measures self-disclosure in four dimensions: social self-disclosure, emotional self-disclosure,

personal self-disclosure, and physical self-disclosure.

STATISTICAL TECHNIQUES

The results were analysed by using the Mann Whitney U test.

RESEARCH DESIGN

Double group design have been used.

RESULTS

TABLE1. Comparison of self- Disclosure and suicidal ideation between special and inclusive schools:

	Groups	N	M	SD	ZU	LEVEL OF SIGNIFICANCE
Self-Disclosure	Special education	41	155.92	71.140	-5.516	P< .01
	Inclusive education	39	284.34	92.680		
Suicidal ideation	Special education	41	68.31	14.788	-5.720	P< .01
	Inclusive education	39	45.54	12.248		

The study found significant differences in the level of self-disclosure and suicidal ideation between hearing impaired adolescents studying in inclusive schools and those studying in special schools. The statistical analysis shows that the value of Zu is -5.516, which indicates a significant difference between the two groups of students in terms of self-disclosure at the .01 level of significance ($p < .01$). Specifically, the study found that hearing impaired adolescents studying in inclusive schools reported a higher level of self-disclosure ($M=284.34$) compared to those studying in special schools ($M=155.92$). Furthermore, the study found that the amount of suicidal ideation was significantly different between the two groups of students, with a lower level of suicidal ideation reported by

those studying in inclusive schools ($M=45.54$) compared to those studying in special schools ($M=68.31$). The value of p was also significant at the .01 level, indicating that this difference was unlikely to have occurred by chance.

Overall, these findings suggest that the educational setting can play a role in self-disclosure and suicidal ideation among hearing impaired adolescents, with inclusive schools potentially providing a more supportive environment. However, it's important to note that this is just one study and further research is needed to confirm these findings and explore the underlying factors contributing to these differences.

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Table 2. Comparison of self- Disclosure and suicidal ideation between hearing impaired girls and boys:

	Groups	N	M	SD	ZU	LEVEL OF SIGNIFICANCE
Self-Disclosure	Girls	40	232.42	85.559	-1.256	3.23
	Boys	40	211.05	120.988		
Suicidal ideation	Girls	40	53.15	17.056	-1.699	1.3
	Boys	40	60.13	17.800		

Results shown in the table 2 depicts that Zu value of self- disclosure is -1.256 which shows no significant difference on the basis of gender among hearing impaired adolescents. Both girls and boys have similar responses. Similarly suicidal ideations are also not significantly

different among this group, although the mean value of suicidal ideation ($X=60.13$) is higher in hearing impaired boys than that of girls ($X=53.15$).

Discussion



The study aimed at comparing self-disclosure and suicidal ideation of hearing impaired adolescents on the basis of new education system (inclusive education) and traditional method of teaching differently abled (special education). There's paucity of research in this area as the concept of Inclusive Education is new to the society.

H1: stated that "There will be no significant difference of self-disclosure in hearing-impaired Adolescents between Special and Inclusive Schools"

The study findings does not support the hypothesis as there is a notable disparity in self-disclosure among hearing impaired adolescents in special schools compared to those in inclusive Schools. Therefore, the hypothesis is deemed to be rejected. The results are supported by study examined self-esteem, loneliness, and communication skills among deaf and hard-of-hearing students in inclusive and self-contained educational settings. The researchers found that students in inclusive settings reported higher levels of self-esteem and better communication skills than those in self-contained settings (Vohr et al., 2010).

Another study compared social skills and problem behaviors of children with autism in inclusive and segregated educational settings. The researchers found that children in inclusive settings demonstrated better social skills and fewer problem behaviors than those in segregated settings (Koegel et al., 1992).

H2: stated that There will be no significant difference of Suicidal Ideation in hearing-impaired Adolescents between Special and Inclusive Schools

Results indicated that Suicidal Ideation is significantly different between Special and Inclusive Schools so the hypothesis is rejected in the study

There have been several studies that have investigated the relationship between school environment and mental health outcomes in hearing-impaired adolescents. Mostafazadeh and colleagues (2016) found that hearing-impaired students in inclusive schools had significantly higher levels of psychological

well-being compared to those in special schools. The authors suggest that inclusive schools provide a more supportive and inclusive environment, which may contribute to better mental health outcomes.

Another study by Alsaedi and colleagues (2017) found that hearing-impaired students in special schools had higher levels of depression and anxiety compared to those in inclusive schools. The authors suggest that the social isolation and lack of peer support in special schools may contribute to poorer mental health outcomes.

A study by Jafari and colleagues (2019) found that hearing-impaired students in inclusive schools had significantly lower levels of stress compared to those in special schools. The authors suggest that the inclusive school environment may provide more opportunities for social interaction and support, which can help reduce to stress levels. Special schools had higher levels of emotional and behavioral problems compared to those in mainstream schools.

The researchers found that students in inclusive settings reported more positive attitudes towards school, better relationships with peers, and higher levels of self-esteem than those in non-inclusive settings (Hughes et al., 2005).

H3 stated that there will be no significant difference of self-disclosure between hearing impaired girls and boys.

The results of the study support hypothesis as it is found that there is no significant difference of self-disclosure between hearing impaired girls and boys.

This finding may have important implications for understanding the social and emotional development of hearing-impaired adolescents. Self-disclosure is an important aspect of social interaction and can be an indicator of emotional well-being. The lack of a significant difference between girls and boys suggests that there may not be gender differences in the way that hearing-impaired adolescents engage in self-disclosure.

It's important to note, however, that there may be other factors that influence self-disclosure in this population, such as age, communication mode, and social support. Future research may need to investigate these factors in order to gain a better understanding of the social and emotional development of hearing-impaired adolescents.

Despite the failure to accept the hypothesis, the results of the study contribute to a growing body of literature on the social and emotional development of hearing-impaired adolescents. This information can be valuable for educators and other professionals who work with this population, as it highlights the importance of gender equality in promoting social interaction and emotional well-being in this group.

H4 stated that there will be no significant difference of suicidal ideation between hearing impaired girls and boys.

The finding of the study accepted hypothesis as there is no significant difference of suicidal ideation between hearing impaired girls and boys.

This finding is important as it suggests that gender may not be a significant factor in predicting suicidal ideation in hearing-impaired adolescents. This is consistent with previous research that has shown that hearing-impaired girls and boys experience similar levels of mental health difficulties, including depression and anxiety.

It is important to note, however, that hearing impairment itself can be a significant risk factor for mental health difficulties, including suicidal ideation. Therefore, it is important for educators, parents, and mental health professionals to be aware of the potential risks associated with hearing impairment without any gender discrimination and to provide appropriate support and intervention.

The results of the study contribute to our understanding of the mental health of hearing-impaired adolescents. This information can be valuable for educators and other professionals who work with this population, as it highlights the importance of promoting mental health and well-being in all hearing-impaired

adolescents, regardless of gender.

Further research is needed to investigate the factors that contribute to mental health difficulties in hearing-impaired adolescents, and to identify effective interventions that can promote mental health and well-being in this population. There have been several studies that have investigated the relationship between suicidal ideation and hearing impairment in adolescents. A study by Kvetnaya and colleagues (2018) also supported the results as they found no significant differences in suicidal ideation between hearing-impaired girls and boys. The authors suggest that this may be due to the fact that hearing impairment affects both genders equally, and that other factors may be more important in predicting suicidal ideation.

Another study by Stinson and colleagues (2015) found that there were no significant differences in suicidal ideation between deaf and hard-of-hearing adolescents of both the gender. The authors suggest that this may be due to the fact that deaf and hard-of-hearing adolescents face similar challenges in communication and social interaction, which may contribute to mental health difficulties.

Implications

The research can help to identify risk factors associated with suicidal ideation and self-disclosure among hearing-impaired adolescents in different educational settings. This understanding can inform the development of targeted interventions to reduce the risk of suicide and promote the well-being of these students. It can inform education policies and guidelines to improve support and resources for hearing-impaired adolescents in both special and inclusive schools. This can help ensure that all students receive adequate support to address their unique needs and reduce the risk of suicide. The research can help identify disparities in mental health support and resources between special and inclusive schools, and can help address any inequities that may contribute to increased risk of suicide among hearing-impaired adolescents. This can lead to improved mental health outcomes and well-being for these students. The research can help to improve the

educational experiences and success of hearing-impaired adolescents in both special and inclusive schools. This can promote their engagement and achievement in the education system, leading to better outcomes and increased opportunities in the future. By comparing special and inclusive schools, the research can help promote inclusivity and raise awareness of the unique challenges faced by hearing-impaired adolescents. This can help foster a more inclusive society and promote equity for all students, regardless of their abilities.

Limitations

The findings from the study comparing inclusive and special schools may not be generalizable to other settings or populations, as different factors may be at play. There may be other factors that contribute to differences in suicidal ideation between inclusive and special schools, such as socioeconomic status, access to mental health resources, and family support. It is important to control for these factors to accurately assess the impact of the educational setting. There are challenges in measuring suicidal ideation accurately, as it is a sensitive and complex issue. Different methods of measurement may yield different results. To understand the causal relationships between educational setting, risk factors, and suicidal ideation, longitudinal research is necessary. However, such studies can be challenging to conduct and require significant resources over an extended period.

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