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EXPLORING THE INTERSECTION OF GENDER AND HEARING IMPAIRMENT: MENTAL HEALTH EXPERIENCES OF TEENAGERS

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ABSTRACT

The purpose of this study is to examine the intersection between gender and hearing impairment in the mental health experiences of adolescents. A survey was conducted among 30 congenitally deaf adolescents between the ages of 16 and 17 using the Screen for Child Anxiety Related Emotional Disorders scale and modified Child Behaviour Checklist scale. The results of our analysis indicate that mental health manifestations differ significantly by gender. In particular, females are more susceptible to anxiety-related symptoms, such as separation anxiety and social anxiety. A number of behavioural domains are highlighted by the CBCL scale. In conclusion, this study underscores the complexity of mental health among hearing-impaired adolescents and highlights the need for tailored interventions and support services. Our findings provide a better understanding of the mental health challenges that this demographic faces.

KEY WORDS: *hearing-impaired, adolescents, congenital, mental health, SCARED scale, CBCL YSR scale, anxiety related problems, emotional and behavioural problems.*

1. INTRODUCTION

In the realm of adolescent mental health, there exists a significant gap in understanding the intricate interplay between gender and hearing impairment, particularly concerning the experiences of teenagers. While some researchers like A Hogan(2011)[1], Theunissens(2014)[2] and RT Bigelow(2020)[3] has explored mental health aspects among individuals with hearing difficulty in various life stages, the journey of deaf teenage community remains relatively uncharted territory. This study embarks on a critical inquiry, seeking to unveil how gender interacts with hearing impairment to shape the mental health experiences of teenagers, with a specific emphasis on identifying significant gender-related differences in the manifestation and experiences of mental health issues within this population.

By illuminating these nuanced dynamics, the study not only expands our comprehension of this unique demographic but also sets the stage for tailored interventions and support systems designed to address their distinct mental health needs.

2. LITERATURE REVIEW

Permanent childhood hearing loss (PCHL) remains linked to increased emotional and behavioural disorder (EBD) scores as assessed through parent-rated SDQ assessments throughout the late teenage years. It is important to note that the majority of teenagers with PCHL do not exhibit clinically evident elevations in EBD levels (Stevenson et.al., 2017). The stress proliferation model point out that hearing impairment of wives affect husbands by elevating their depressive symptoms. But the disability of husband doesn't elevate the depression symptoms of the counterpart (S west et.al., 2020). Hearing loss was affected cognitive functions, and leisure time activities showed moderate connection among males than females (Gao et.al., 2020). Women having impairment of two sensory organs (auditory & vision) showed increased depression and anxiety (Pardhan et.al., 2021)

3. PARTICIPANTS & METHODS

This research represents a development – oriented study aimed at analysing the prevalent psychological challenges faced by the deaf community. Its primary objective is to address the gender based mental health problems among this population.

A psychological survey was conducted within a student community having congenital deafness in the CSI School for the deaf at Valakom, Kollam district, Kerala, India. A total of 30 students aged between 16 and 17 years and without known and visible psychological problems were selected for the study. Among them 18 were females and 12 were males. Informed consent was obtained from the subjects, and the confidentiality of the information was assured. The survey was conducted in august 2023.

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3.1. LANGUAGE ACCESSIBIITY

Since the subjects included in the study were having hearing loss and their way of communication was through sign language, basic knowledge of the language was an advantage for the study. In addition, a sign language interpreter was also assisted to ease up the procedure. Questionnaires were distributed to each participant to ensure the accuracy of data collection.

3.2. DATA COLLECTION

The questionnaire was developed with the assistance of SCARED (Screen for Child Anxiety Related Emotional Disorders) and some questions were modified from CBCL (Child Behaviour Check List) scales.

i. SCREEN FOR CHILD ANXIETY RELATED EMOTIONAL DISORDERS

It is a self- report screening questionnaire containing 41 questions for anxiety disorders developed in 1997. It is intended for youth (9 to 18 years old) and their parents and can complete in about 10 minutes[4]. The questions were aimed to measure their social belonging, self-esteem, peer interaction, aggressiveness and academic related concerns. It can discriminate between depression and anxiety, as well as among distinct anxiety disorders. It has five subscales which differentiate [5], panic or somatic symptoms, generalised anxiety disorder, separation anxiety disorder, social anxiety disorder and school avoidance. Participants respond to each questions based on three response options. 0= not true or hardly true, 1= somewhat true or sometimes true, 2= very true or often true.

ii. CHILD BEHAVIOUR CHECK LIST

It is a widely used report form identifying problem behaviour in children. In this survey 34 questions from the youth self-report (YSR) pages of school- age (11 to 18 years) version[6] cbcl were selected and modified it according to the need. Responses are recorded on a likert scale same as that of scared. For analysis, the questions are further divided to 7 sub scales namely[7]withdrawn symptoms, somatic problems, social problems, attention disorder, aggressive disorder, depression/ anxious and delinquent behaviour.

3.3 MODIFICATION OF THE SCALE

In this survey, parent or caregiver version of both the scales were not used. Because when parents describe their child's behaviour, it may reflect their own concerns rather than an accurate assessment of the child's emotional and behavioural well-being. Secondly, these measuring tools rely heavily on verbal communication and were designed for normal-hearing children. So certain words used in the questions were altered to make easy for the participants to understand. Otherwise the accuracy of the evaluation might hindered by the fact that many disabled children have limited language skills, and it can be hard to establish a connection if the child doesn't understand what the examiner is saying.

3.4 DATA ANALYSIS TOOLS

Analysis of the obtained data was done by calculating mean score for SCARED scale and T score for CBCL scale. The values were calculated with the help of SPSS software.

4. RESULT

Analysis using SCARED scale

Table 1: Questions coming under each subscale and cut off

Sub Scale	Question	Cut
	No	Off
Panic/somatic anxiety	1,6,9,12,15,18,19, 22, 27	7
Generalized anxiety	4,8,13,16,2,25, 29,31	9
Separation anxiety	4,8,13,16,20, 25,29,31	5
Social anxiety	3,10,26,32,39,40, 41	8
School avoidance	2,11,17,36	3

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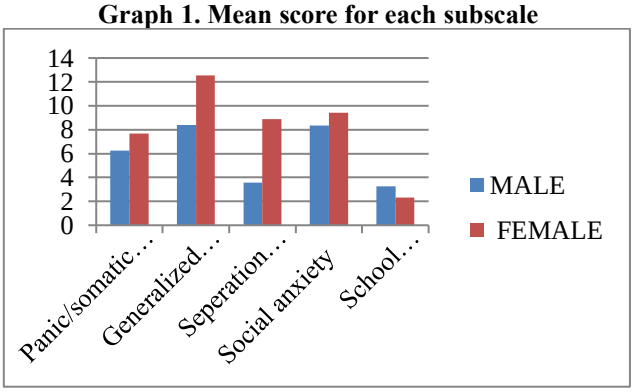
Table 2: Mean score for each subscale

Subscale	Mean	
	MALE	FEMALE
Panic/somatic anxiety	6.25	7.67
Generalized anxiety	8.41	12.56
Separation anxiety	3.58	8.89
Social anxiety	8.33	9.44
School avoidance	3.25	2.33

Graph 1. Mean score for each subscale



CBCL scale analysis

Each subscale is interpreted on the basis of T score. Approximate T score of 65 and below – normal range, approximate T score of 65 to 70 – borderline ranges, approximate T score of 70 and above – clinical range.

Table 3 .T score of cbcl

Subscales	Male	Female
Withdrawn	40	84
Somatic Problems	30	66
Social Problems	67	70
Attention Problems	60	58
Aggressive Disorder	82	91
Depression/ Anxious	65	66
Delinquent	40	48

5. DISCUSSION

5.1 Interpretation of the results

By using SCARED scale for the evaluation, significant insights into the prevalence of anxiety-related symptoms among our study group were revealed.

Panic anxiety, as assessed by questions probing feelings of nervousness, terror and sudden fear, revealed that females exhibited scores above the established threshold, suggesting the presence of panic anxiety symptoms. In case of male part, they displayed scores only slightly below these cut-offs (6.25), suggesting that they may also be at risk of developing symptoms related to anxiety disorders, albeit to a somewhat lesser extent than females. Generalised anxiety, explored through questions related to persistent worrying about various aspect of life, was notably elevated among females (12.56), with scores surpassing the threshold(9). males

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also exhibited scores (8.41) almost near to the cut off scores, indicating the prevalence of generalized anxiety symptoms in this cohort. The separation anxiety subscale, assessing concerns related to detachment from parents or care givers, demonstrated a substantial discrepancy. Females displayed markedly higher scores (8.89), signalling a heightened likelihood of separation anxiety. Conversely, males scored below the threshold, indicating a lower tendency for separation anxiety. Social anxiety, reflecting feelings of shyness and apprehension about social interactions, yielded scores above the threshold for both gender (8.33&9.44 respectively). Although females had slightly higher scores, the study illuminates the prevalence of social anxiety symptoms in both hearing-impaired population. In the school avoidance subscale, addressing reluctance or fear of attending school, males displayed scores (3.25) above the normal range, suggesting a propensity for school avoidance, while females scored below the threshold (2.33), indicating a lower likelihood. While SCARED scale provides information about anxiety related problems only, it is important to analyse the findings of CBCL scale also.

For the withdrawn subscale, which explores social withdrawal and emotional detachment, indicates a pronounced contrast between the genders, with females scoring (84) significantly higher than the counterpart, suggesting a greater prevalence of social withdrawal tendencies among the disabled female population. Somatic problems, probing physical complaints without apparent medical cause, reveals a similar pattern. The score of males fell within the normal range (30), while opposite part displayed a slightly elevated T score, suggesting a slightly higher likelihood of somatic complaints among them. Social problems, which assesses difficulties in social interactions and relationships, demonstrates that both the genders scored within the normal range, indicating typical levels of social difficulties for both, although females has slightly higher scores (60). In contrast, the attention disorder subscale showed a striking disparity. Females scored well above the normal range (81), indicating a heightened risk of attention-related difficulties, while male's scores remained within the normal range (33). Aggressive behaviour reveals higher scores for both females (91) and males (82), providing a notable presence of aggressive tendencies within the study group particularly among females. Depression or anxious score were relatively balanced, with females (70) and males (69) displaying similar T scores, Suggesting an even distribution of emotional symptoms in this area.

5.2 Limitations of the study

The study focused on the age groups 16 and 17. A more refined age breakdown provides deeper insights into the same topic. The research primarily relied on self-report measures, which can introduce response bias and may not fully capture the participant's experiences. Findings from the study are context-specific and may not be compared with other cultural or geographic settings, as these factors can significantly influence mental health. Lastly, this study did not extensively explore external factors such as family dynamics, educational environments or access to support services which could contribute to the mental health status.

6. CONCLUSION

By evaluating the anxiety related issues of non- hearing community including both males and females using SCARED scale, notably scores above the established thresholds in the panic anxiety, generalized anxiety, and social anxiety were observed especially in females of 16and17age. Slightly higher scores were consistently exhibited by them across these subscales, suggesting a potentially heightened vulnerability to anxiety symptoms within this group. When coming to male group, they showed scores only slightly below these cut offs for the first three subscales, indicate that they are also at risk category. Additionally, it can be concluded that the tendency of school avoidance is comparatively less in both genders even though boys showed a very slightly increased score. The marked contrast in scores between males and their opposite gender in the context of separation anxiety is a noteworthy finding in the study. This discrepancy suggests that the attachment and separation from caregivers or parents may be a particularly distressing issue for female community in this population. Another intriguing finding of the research was the notably elevated social anxiety scores observed in both genders which suggest that social interactions and situations are a significant source of anxiety within this age group. . The analysis using CBCL YSR point out that while most of the subscales yielded scores within the normal range for males except aggressive and depression scale, there were notable differences in specific areas when considering the females. They displayed elevated scores in all subscales except social problems and delinquent behaviour. In conclusion, the analysis of both scales underscores the gender based differences in the manifestation of mental health problems among hearing impaired adolescents. Anxiety related symptoms, as revealed by the SCARED scale, appear to be prevalent, particularly among females, with potential implications for their emotional well-being. Additionally, the CBCL scale sheds light on distinct behavioural patterns, with again females displaying elevated scores in specific areas, including aggression and attention.

7. RECOMMENDATIONS

1. Integrate holistic interventions such as yoga and mindfulness practices to the daily routines of non -hearing adolescents. These practices can reduce the intensity of issues and promote emotional health and resilience.
2. Advocate for broader awareness campaigns within the education system and the community at large to reduce stigma associated with hearing impairment and mental health challenges.
3. Implementation of routine mental health screening for hearing –impaired adolescents help in the early detection of anxiety, depression and other emotional concerns which can further lead to timely intervention and support.

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4. Research by including parent version of SCARED and CBCL scale further help to understand the problem more deeply and it clarifies the importance of involving parents and caregivers in mental health support process.
5. Establishing mental health support services within educational institutions including on-site counsellors, therapists or psychologists who are trained in working with deaf individuals will be fruitful in long term.

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SCARED SCALE QUESTIONNAIRE (CHILD VERSION)

1. When I feel frightened, it is hard for me to breathe
2. I get headache when I am at school
3. I don't like to be with people I don't know well
4. I get scared if I sleep away from home
5. I worry about other people liking me
6. When I get frightened, I fell like passing out
7. I am nervous
8. I follow my mother or father wherever they go
9. People tell me that I look nervous
10. I feel nervous with people I don't know well
11. I get stomach-aches at school
12. When I get frightened, I feel like I am going crazy
13. I worry about sleeping alone
14. I worry about being as good as other kids
15. When I get frightened, I feel like things are not real
16. I have nightmares about something bad happening to my parents
17. I worry about going to school
18. When I get frightened, my heart beats fast
19. I get shaky
20. I have nightmares about something bad happening to me
21. I worry about things working out for me
22. When I get frightened, I sweat a lot
23. I am a worrier
24. I get really frightened for no reason at all
25. I am afraid to be alone in the house
26. It is hard for me to talk with people I don't know well
27. When I get frightened, I feel like I am choking
28. People tell me that I worry too much
29. I don't lie to be away from my family
30. I am afraid of having anxiety(panic) attacks
31. I worry that something bad might happen to my parents
32. I feel shy with people I don't know well
33. I worry about what is going to happen in the future
34. When I get frightened, I feel like throwing up
35. I worry about how well I do things
36. I am scared to go to school
37. I worry about things that have already happened

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38. When I get frightened, I feel dizzy
39. I feel nervous when I am with other children or adults and I have to do something while they watch me
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.

CBCL SCALE (MODIFIED)

1. Argues a lot
2. Refuses to talk
3. Fails to finish things you start
4. Runs away from home
5. Can't concentrate & pay attention for long
6. Secretive, keeps things to self
7. Clings to adults or too dependent
8. Sleeps less than others
9. Cruelty, bullying,or meanness to others
10. Sleeps more than others
11. Deliberately harms self/attempts suicide
12. Inattentive or easily distracted
13. Destroys your own things
14. Destroys things belonging to your family
15. Steals at home
16. Steals outside the home
17. Disobedient at home
18. Disobedient at school
19. Feels or complains that no one loves you
20. Feels worthless or inferior
21. Withdrawn, doesn't get involved with others
22. Sudden changes in mood or feelings
23. Talks about killing self
24. Doesn't feel guilty after misbehaving
25. Temper tantrums or hot temper
26. Unhappy, sad, or depressed
27. Doesn't feel guilty after misbehaving
28. Temper tantrums or hot temper
29. Unhappy, sad, or depressed
30. Gets teased a lot
31. Prefers being with older kids
32. Prefers being with younger kids
33. Impulsive or acts without thinking
34. Would rather be alone than with others
35. Lying or cheating
36. Overtired without good reason
37. Physical problems without know medical cause:
    - Aches or pains
    - Headaches
    - Nausea, feels sick
    - Problems with eyes (not corrected by glasses)