



# HARMONIZING SILENCE: AYURVEDIC INTERVENTIONS AND HOLISTIC APPROACHES IN ENHANCING THE WELL-BEING AND MENTAL HEALTH OF TEENAGERS WITH HEARING IMPAIRMENT

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## ABSTRACT

*In this study, we examined a holistic approach for enhancing the mental health and well-being of teenagers with hearing impairments, a group that is often underrepresented in existing studies. As part of the study, Ayurveda treatments, yoga practices, and psychological counseling are integrated into a multidisciplinary methodology. A comprehensive intervention for two months was provided to a number of 30 participants, selected from a specialized school for the deaf. The holistic interventions fostered emotional stability, enhanced focus, and increased self-confidence among the participants. Re-analyses of psychological scales demonstrated noteworthy reductions in anxiety-related scores and substantial improvements in various behavioral measures. This study not only highlights the efficacy of ancient healing practices like Ayurveda and yoga but also emphasizes the importance of creating supportive environments within educational institutions. Providing valuable insights into the unique challenges faced by hearing-impaired teenagers by bridging the gap between audiological treatments and holistic approaches, this research offers valuable insights for addressing them in a way that is more inclusive and compassionate, ultimately improving their psychological well-being.*

**KEYWORDS:** *Ayurveda, yoga, counselling, hearing-impaired, mental health.*

## INTRODUCTION

The well-being and mental health of teenagers with hearing impairment are paramount concerns that warrant specialized attention and tailored interventions. In the pursuit of ameliorating these complex health challenges, the conventional approach to treatment has, understandably, largely focused on audiological interventions, such as hearing aids and cochlear implants. While these technological advancements have revolutionized the lives of many hearing-impaired individuals<sup>1</sup>, they do not address the totality of their experiences. The existing body of research has often overlooked the potential benefits of holistic and multidisciplinary interventions that encompass both traditional and complementary approaches to healthcare. This gap becomes particularly evident when considering the utilization of Ayurveda, an ancient system of medicine with a comprehensive perspective on well-being. Ayurveda, despite its rich history and potential relevance, remains underexplored in the context of hearing-impaired mental health. As a result, this research paper seeks to bridge the existing gap by exploring the integration of Ayurveda treatments within a multidisciplinary framework aimed at enhancing the total well-being of the deaf population. While previous studies have laid foundation by identifying the problems faced by this population<sup>2</sup>, our research endeavors to expand the horizons of hearing difficulty and mental health research by investigating the untapped potential of Ayurveda as a holistic healing modality. Through this exploration, we aspire to unveil promising avenues for the improved quality of life and psychological well-being of those who navigate the world with the hearing impairment.

## PARTICIPANTS AND METHODS

The participants for this study were selected from higher secondary classes (age b/w 16&17) of CSI special school for the deaf, valakom, kollam district. The 30 subjects who had been surveyed using SCARED and CBCL scale were included in this study. Exclusion criteria were applied to individuals who were already undergoing treatment for serious psychological illnesses and had physical limitations that hinder their participation in the yoga and pranayama sessions of the intervention. Following the exclusion criteria, the same 30 students could include to participate in the treatment. Among them 18 were females and 12 were males. An introductory session was conducted, aided by an interpreter, to provide the students with information about the nature and purpose of study. Written consent was obtained from each student. Subsequently, a timetable was arranged in collaboration with the school management, allocating one hour in the



morning and afternoon session daily for the implementation of the procedures. The students were then exposed to the interventions for duration of 2 months (8 weeks). The following interventions were employed.

**1. Physical health assessment through medical camp**

A medical camp was organized in collaboration with Healthymed Ayurveda clinic within the school premises. Three experienced Ayurveda doctors were available in the camp, making their expertise useful to all students at the school. To focus on the selected participants, a dedicated list was created to document and address their specific physical health concerns. Main health issues reported were headache, allergic rhinitis and tiredness.

**Table1: Treatments given for the physical and mental ailments**

EXTERNAL TREATMENT	Medicine used	Indication
Sadyo vamana(purgation) <sup>3</sup>	Avipathichoorna <sup>4</sup>	Pitha predominant diseases, gastritis, migraine. Here used to induce sudden purgation
Pratimarsa nasya (nostril instillation) <sup>5</sup>	Anutaila <sup>5</sup>	Strengthen sensory organs, migraine etc.
Karnapoorana (filling ear with medicine) <sup>6</sup>	Ksharataila <sup>7</sup>	All ear diseases including tinnitus & deafness
Siro Pichu <sup>4</sup>	Ksheerabala <sup>3</sup> + Kachooradi choorna <sup>3</sup>	Headache, migraine, induce sleep, improve memory & other psychological illnesses
<b>INTERNAL MEDICINES</b>		
	Ashtachoorna <sup>3</sup>	Improve digestion
	Aswagandharishta <sup>3</sup>	Depression, anxiety, insomnia

**2. Yoga Practice**

Yoga, an ancient practice rooted in the traditions of India, has garnered global recognition for its holistic approach to well-being. In the context of this study, yoga serves as a vital component of our intervention for individuals with hearing impairment. Beyond its physical postures, yoga encompasses techniques that promote relaxation, concentration, and body awareness. Its historical significance, dating back centuries and its widespread cultural relevance make it a compelling addition to our research. For the study, 6 yogasana and 2 pranayama techniques were selected after analyzing its therapeutic effects. Each asana were shown to them step by step using power point presentation to understand clearly. The instructor also demonstrated and helped to do each one. The subjects were encouraged to include yoga in their daily routine.

**Table 2: Yogasana module adapted**

Procedure	Therapeutic indication	Duration
Sukshma vyayamas	loosening exercises to relax muscles	10 minutes
<b>YOGASANAS<sup>8</sup></b>		
Sukhasana (easy pose)	easy pose for meditation, relax mind & body, reduce stress, anxiety, improves focus & attention	
Vajrasana (thunderbolt posture)	improves digestion, calms mind, reduce anxiety & stress, improve lung function & blood circulation.	
Vakrasana (half spinal twist)	implied effect on stress & anxiety, improve spine-texture	
Bhujangasana (Cobra stretch)	stimulate abdominal organs, relieves stress & fatigue	
Tadasana (mountain pose)	improves stability of body & mental awareness, boosts energy level	
Savasana (corpse pose)	best to reduce anxiety & stress, mental tiredness, calms nervous system, improve sleep pattern	
<b>PRANAYAMA<sup>9</sup></b>		
Naadisudhi (alternate nostril breathing)	effects on nervous system, allows mind & body to relax	10 minutes
Sheetali (cooling breath)	kindles digestive fire, provide mental tranquility	
<b>MEDITATION</b>	relaxation	5 minutes



### 3. Psychological Counselling

Counseling session was done for the selected group once in a week with the help of clinical psychologist. Individual and group counselling sessions were conducted once in a week to address the insecurities and anxieties surrounding future prospects and career trajectories. A nurturing and supportive environment was fostered, allowing participants to share their concerns openly and embark on a journey towards greater self- assurance.

#### 1. Awareness class for teachers.

An awareness class targeting teachers in the school was organized to raise consciousness about the critical subject of mental health within the deaf community. The class aimed to empower teachers with the knowledge and tools required to provide more effective support and care to their students.

### RESULT AND ANALYSIS

30 subjects participated in the study, successfully completed the two month training and treatment. All the participants were thoroughly monitored during the selected time period and active participation was ensured. After 8 weeks, a re-assessment was done through subjective analysis and using the same SCARED<sup>10</sup> and CBCL<sup>11</sup> scale questionnaire.

#### Subjective Analysis

Most of the subjects responded that they could feel considerable improvements in their physical and mental health issues. Through the external and internal treatments done, ailments like headache, allergic rhinitis etc. showed decreased intensity in its appearance. And the medicines also helped to improve their mental well-being. All of them felt a positive change in their lives and an increased energy level. Many participants reported feeling more emotionally stable, displaying enhanced focus and expressing a renewed sense of hope and optimism. In comparing their current state to the period before the interventions, participants noted a remarkable difference, emphasizing their increased ability to cope with daily challenges and navigate social interactions more confidently. Before, many participants exhibited challenging behaviour in various situations, particularly in social and academic settings. In classroom environments, some teenagers showed signs of extreme restlessness and an inability to concentrate, leading to disruptive behavior that affected their own learning and as well as that of their peers. Additionally, in social interactions, heightened anxiety often led to withdrawal and difficulty in forming meaningful connections with others. Following the interventions, a noticeable transformation in behavior was observed. In academic settings, participants displayed improved focus and concentration, leading to more active participation in class activities. Teachers reported reduced instances of disruptive behavior, indicating enhanced self-regulation and improved attention spans. In social situations, participants exhibited greater confidence and willingness to engage with their peers. This newfound confidence not only improved their social skills but also positively influenced their self-esteem. Regular practice of these asana produced notable results in the study group. Through Yoga techniques, they experienced a profound shift in their emotional well-being. By counselling, many individuals experienced a noticeable boost in self- confidence and they began to believe in their abilities and talents.

**Table 3: SCARED Scale Re-Analysis**

Subscale	New mean score		Previous mean score		Cut-off
	M	F	M	F	
Panic/somatic anxiety	5.75	7	6.25	6.25	7
Generalized anxiety	7.30	10	8.41	12.56	9
seperation anxiety	2.25	6.25	3.58	8.89	5
Social anxiety	7.56	8.30	8.33	9.44	8
School avoidance	2.80	1.75	3.25	2.33	3

**Table 4: CBCL Scale Re-Analysis**

Subscale	New T score		Previous T score	
	M	F	M	F
Withdrawn	35	78	40	84
Somatic problems	22	56	30	66
Social problems	60	60	67	70
Attention problems	55	52	60	58
Aggressive disorder	75	80	82	91
Depression/anxious	56	60	65	66
Delinquent	34	40	40	48



The re-analysis pointed out that there were prominent differences in the behaviour and mental status of the study group after the implemented interventions. SCARED scale assessment conclude that even though the mean scores of females are still above the cut off, there can be seen a reduction in previous scores with a mean of 1.52 within a short period of 8 weeks. In case of males the mean score difference is 0.83 and notably the mean score of social anxiety came under the threshold score. CBCL scale also revealed considerable changes in the T scores. The mean differences in previous and after score for males are 6.71 and that of females are 8.14.

## CONCLUSION

The research provides a valuable insight into the often-overlooked dimension of holistic interventions, specifically within the context of teenagers with hearing impairment. With the integration of Ayurveda treatments, yoga practices, and psychological counseling into a comprehensive multidisciplinary framework, significant progress has been made in enhancing the well-being and mental health of participants. Observations of the results indicate that both physical and mental health issues have significantly improved, demonstrating the potential of ancient healing practices like Ayurveda and yoga to address the unique challenges facing hearing-impaired individuals. Besides experiencing reduced symptoms of anxiety, depression, and somatic problems, participants demonstrated a greater level of emotional stability, focus, and self-confidence as well. As further evidence of these positive changes, re-analyses of SCARED and CBCL scales showed substantial reductions in anxiety-related scores and significant improvements in various behavioral measures. Additionally, the findings of this study emphasize the importance of not only providing individual interventions, but also fostering awareness and support systems within educational institutions, involving teachers in the process of promoting mental health. By bridging the gap between conventional audiological treatments and holistic approaches, this research not only enriches our understanding of mental health among the hearing-impaired but paves the way for a more inclusive, compassionate, and effective approach to addressing the diverse needs of this community, thereby enhancing their psychological wellbeing and quality of life.

## RECOMMENDATIONS

- 1) Integrate holistic approaches to regular educational curriculum of schools catering to hearing-impaired students. These practices can be incorporated to physical education and mental health awareness program which help to promote an overall well-being from an early age.
- 2) Conduct awareness and training sessions for teachers and school staffs to raise awareness about the unique challenges faced by the deaf community and equip them with basic knowledge to handle the situations.
- 3) Involve parents and caregivers in workshops that educate them about holistic approaches and its benefits. Encourage them to practice those with their children to strengthen the family bonding and further to increase the effects of these therapies.
- 4) Conduct long term studies to assess the sustained benefits of holistic interventions on the mental health of hearing-impaired students.

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