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Sajana Aryal, Prashanth Prabhu



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## **AWARENESS AND PERSPECTIVES OF AUDIOLOGISTS ON ASSESSMENT AND MANAGEMENT OF MISOPHONIA IN INDIA**

**Authors:** Sajana Aryal<sup>a\*</sup>, Prashanth Prabhu<sup>a</sup>

**Affiliation:** <sup>a</sup>All India Institute of Speech and Hearing, Mysore, India

**\*Correspondence:**

**Sajana Aryal, MSc. Audiology**

**Department of Audiology, All India Institute of Speech and Hearing, Mysore, India – 570006.**

**Ph: +91 8147297652**

**Email: sajanaaryal5566@gmail.com**

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**Authors' contribution:** **Sajana Aryal** was involved in concept development, study design, stimulus preparation, analysis of the results, interpretation, and writing the manuscript; **Prashanth Prabhu** was involved in concept development and study design, stimulus preparation, and writing the manuscript.

### **Ethical Statement**

*Ethical Approval:* Ethical approval was obtained from the All India Institute of Speech and Hearing.

*Informed Consent:* Informed consent was obtained from the patient to participate in the study.

**Conflicts of Interest and Source of Funding:** There is no conflict of interest to disclose. This is a non-funded research.

# **AWARENESS AND PERSPECTIVES OF AUDIOLOGISTS ON ASSESSMENT AND MANAGEMENT OF MISOPHONIA IN INDIA**

## **ABSTRACT:**

### **Background**

The assessment and management of misophonia need a team approach, and audiologists are essential team members. However, the role of an audiologist in this condition is not well understood, and there is a lack of awareness even among professionals about their role in the assessment and management of misophonia.

### **Purpose**

The main aim of our study is to document the present level of awareness and knowledge about misophonia assessment and management among audiologists in India.

### **Methods**

A descriptive cross-sectional study was carried out among audiologists from all over India. Descriptive statistical procedures were measured based on the type of questions being addressed, and a non-parametric chi-square test was done to see the association among variables.

### **Results**

The results show a lack of knowledge about misophonia even among audiologists, as only 15.3% of the audiologist reported being confident in handling cases with misophonia.

### **Conclusion**

Although the exact assessment and management of misophonia is still the topic of debate, it is clear that audiologists are the team's key members. However, the results clearly show a lack of confidence in handling cases of misophonia among audiologists in India. This result shows the future need for Research in misophonia from an audiological perspective.

**Key Words:** *Misophonia; Awareness; Audiologists; Viewpoint; Assessment and Management*

## **INTRODUCTION**

The recent consensus definition has explained misophonia as a disorder that is characterized by decreased tolerance to specific sound stimuli (Swedo et al., 2022). These specific sound stimuli are known as a trigger that causes various emotional and physiological responses, including an accelerated heart rate, sweating, anxiety, rage, irritability, and disgust. This disorder is poorly understood and less explored in the medical field. However, disorders can significantly impair an individual's quality of life. In the field of psychology, it is regarded as a psychiatric disorder and treated accordingly. Schröder et al. (2013) gave the diagnostic criteria stating misophonia as a psychiatric disorder. However, misophonia is a disorder that borders audiology, psychiatry, and the neurology field (Schröder et al., 2013).

Within the last two decades, there has been growing interest in the field of misophonia in developing diagnostic criteria (Brout et al., 2018). Researchers have explained the disorder using psychiatric criteria (Schröder et al., 2013). Misophonia can occur with neurological and psychiatric disorders, but it is not limited to mood disorders, anxiety disorders, sensory processing disorders (SPD), and Autism Spectrum Disorders (ASD). In audiology, misophonia is categorized with other sound disorders, including tinnitus, hyperacusis, and phonophobia.

Tinnitus is the perception of sound in the absence of acoustic stimulation, which is mainly associated with hearing loss. On the other hand, hyperacusis is the increased sensitivity to the sounds, which results in pain or the sufferers feeling uncomfortable and related to the intensity. Phonophobia has been defined as the fear of sounds used by patients expressing fear of certain sounds due to abnormal limbic and autonomic nervous system activation. However, misophonia is distinct from these disorders, although there is some overlap in symptoms, and an individual may present with more than one condition (Jastreboff, 2001; Swedo et al., 2022). Szczeppek et al. (2022) have also reported that misophonia can occur with and without an average hearing threshold and alone or with other auditory conditions such as tinnitus and hyperacusis. Misophonia is relatively less explored in the field of audiology.

The exact pathophysiology of misophonia is not known yet. Various neurophysiological studies have shown hyperactivation of the auditory pathway in individuals with misophonia (Kumar et al., 2017). Audiologists are professionals trained to deal with sound and related auditory disorders. The various treatment approaches trialed in the literature for managing misophonia, such as Tinnitus retraining therapy (TRT) and Cognitive Behavioral Therapy (CBT), fall in the

audiology domain. Jastreboff & Jastreboff (2002) reported that tinnitus-retraining therapy should work better with misophonia patients than with tinnitus patients because misophonia involves an external trigger, which can be manipulated to potentially eliminate the conditioned response. Reclassifying the trigger sounds and extensive counseling are recommended for individuals with misophonia. Jastreboff (2015) reported the effectiveness of tinnitus retraining therapy in misophonia patients with and without hyperacusis.

Besides tinnitus retraining therapy, Cognitive-Relaxation Coping Skills Training and Multicomponent Cognitive-Behavioral Therapy (CBT) have also been used to treat misophonia (McGuire et al., 2015) successfully. Few case reports have been published showing CBT's effectiveness for clients with misophonia. In the study by Schröder et al. (2017), 48% of the participants improved after the eight sessions of CBT on the Clinical global improvement scale. Similarly, Bernstein et al. (2013) reported improved social and occupational functioning after the six sessions of CBT in patients with misophonia.

The assessment and management of misophonia need a team approach, including a Neurologist, Audiologist, Psychologist, and Occupational therapists. Audiologists are vital members of the team. However, the role of an audiologist in this condition is not well understood, and there is a lack of awareness even among professionals about their role in the assessment and management of misophonia. The information regarding epidemiology, etiology, pathophysiology, and co-morbid conditions of misophonia remains unknown, especially in developing countries like India.

Misophonia is not studied from an audiological perspective, and most professionals are unaware of this disorder. In developing countries like India, most audiologists do not consider misophonia as an auditory disorder, and they should conduct separate assessment and management protocols for individuals with misophonia. The assessment and management protocols that the audiologist uses for tinnitus and hyperacusis may not work for misophonia as the pathophysiological mechanism behind the disorder is different. Hence, there is an immense need to create awareness about misophonia assessment and management among audiologists worldwide, especially in developing countries like India.

The primary aim of our study is to study the status of misophonia assessment and management in various hearing healthcare set up in India. In addition, our study also documents

the present level of awareness about the assessment and management of misophonia among audiologists in India which can further be used to spread awareness about misophonia among professionals as well as among the general public. In India, no such investigation has been conducted till now. This will be the first study of its kind. It will be instrumental in creating awareness among professionals regarding the role of audiologists in misophonia and motivating professionals to develop assessment and management protocols for helping individuals with misophonia disorder.

## **METHODS**

### ***Ethical Guidelines***

Ethical guidelines formulated by the institutional review board were followed for the study. The ethical approval number was SH/ERB/2022-22/36. Informed consent was taken from all the participants in the form of a question in the google form.

### ***Participants***

A descriptive cross-sectional study was conducted among audiologists all over India over three months, from April 2022 to July 2022. A questionnaire designed for the study was distributed to the 500 working audiologist in different hearing care set up via online survey modes such as Gmail, whats' app, and LinkedIn. Among the 500 audiologists, 190 from different geographic areas of India responded to the survey.

### ***Inclusive and Exclusive Criteria***

All the audiologists working in the hearing care setup having the minimum qualification of Bachelor in Speech-language pathology and Audiology (BASLP) with RCI registration are included in the survey. Professionals with BASLP degrees but working as speech-language pathologists, professionals working as hearing specialists with a diploma degree, and all speech-language pathologists have been excluded from the survey. There was no age limit for responding to the survey. The participants who were not Indian citizens were excluded from the study. All the participants were well educated with good English language competency to respond to the survey.

### ***Design of the Questionnaires***

A survey questionnaire was prepared in Google regarding the awareness of assessment and management of misophonia. The authors formulated 23 closed-set and open-set questions in the English language based on their experience regarding the assessment and management of misophonia and the basis of a literature review. Out of 23 questions, eight were related to demographic details, qualifications, and experience in audiology. Similarly, ten questions were related to awareness and the audiologist's perspectives on the assessment of misophonia, and five were related to perspectives regarding misophonia management.

The questionnaires were given to five audiologists for validation. The construct validity was done by using a five-point rating scale. For each question, five correspond to the most worthy questions, and one corresponds to the least worthy questions. All the 23 questions included in the survey were rated as 4 or 5 on the Likert scale and considered for the study.

Among 23 questions, 21 were closed set with the multiple choice option. In contrast, two were open-set questions where audiologists had to answer their perspectives and ideas on the assessment and management of misophonia (provided as supplementary material).

### ***Procedure***

The contact details, including the email address and phone numbers of all the working audiologists, were taken from the concerned institute and the Indian speech and hearing association (ISHA) dictionary. The questionnaires were mailed to the 500 working audiologists in different geographic areas of India. Among 500 emails, we got a response from 118 audiologists. The telephonic interview was done for the audiologists who did not respond to the emails. Seventy-two audiologists responded to our phone call and answered the questions. Overall, 190 audiologists responded to our survey. All the data collection procedure was done after taking informed consent from the professionals.

### **Statistical Analysis**

The response to the questionnaires was tracked in the spreadsheet in Microsoft Excel 2010. The investigator analyzed the response to the questionnaire and converted it into numerical form. Obtained data were analyzed using a statistical package of social science (SPSS Version 25.) software. Descriptive statistical procedures such as frequency and percentages were measured based on the type of questions being addressed. As the data were descriptive and did not follow

the normality, a non-parametric chi-square test was done to see the association between the variables.

## RESULTS

### Demographic characteristics

Among 190 audiologists who responded to the survey, 71 (37.36%) were male, and 119 (62.63%) were female. All participants' mean age was 35.7 years (SD=8.8 years). All the participants worked as audiologists with a minimum qualification of an undergraduate bachelor's in audiology and speech-language pathology. Out of 190 participants, 51 (26.85%) participants have done undergraduate in audiology, and speech-language pathology, 134 (70.52%) have done post-graduation in audiology, and 5 (2.63%) have done Ph.D. in audiology. All the audiologists included in the study worked in audiology with a minimum experience of 2 years and a maximum of 15 years (Mean= 7year, SD= 6 years). Most participants, 102 (53.68%), reported working as an audiologist in an academic institute, followed by hospital set up 52 (27.37%) and private practice 36 (18.95%).

### Awareness about misophonia

Among 190 audiologists, who responded to the survey, 175 (92.10%) reported they are aware of the terminology, 7(3.68%) reported they are not clear about the term misophonia, and 8 (4.21%) reported they are not even aware of the terminology. Even though many audiologists reported that they are aware of the terminology, only a few audiologists, 29(15.3%), reported being confident in handling cases with misophonia using audiological approaches. The detailed awareness of misophonia is illustrated in **figure 1**.

Insert figure 1 here

### Audiologists' perspectives on the misophonia complex and etiology

The question was asked regarding the audiologist's perspectives on the misophonia domain and the cause of the misophonia. Out of 190 audiologists, 55(28.95%) categorize misophonia as an auditory disorder, 35 (18.42%) categorize it as a psychiatric disorder, and 14 (7.6%) as a



neurological disorder. 16 (8.42%) of audiologists reported they were not sure about the domain of misophonia. The rest of the audiologists categorize Misophonia into two or three domains: auditory, psychiatry, and neurology. The details of the audiological perspectives on the misophonia complex are illustrated in **Table 1**.

Similarly, audiologists were asked about the etiology of the misophonia. Many of the audiologists, 47 (24.74%), answered that the etiology of misophonia could be neurophysiological, 39 (20.52%) reported it as psychological, and 5(2.63%) as anatomical. 14 (7.37%) of audiologists reported they were unaware of the misophonia's etiology. The rest of the audiologists reported multiple etiology for the occurrence of the misophonia. The details of the audiologist's viewpoint on the etiology of misophonia are illustrated in **Table 1**.

Insert table 1 here
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### **Audiologist Perspectives on assessment of misophonia**

Audiologists were asked about the number of cases of misophonia they get in their work facility. Out of 190 audiologists, only 25 (13.15%) reported cases of misophonia in their workplace, with an enrollment of 10-50 cases per year. The other 165 (86.84%) reported no cases of misophonia at their workplace. The questions were asked regarding their perspectives on the diagnosis of misophonia from tinnitus and hyperacusis. Most of the audiologist, 129(67.89%), reported that diagnostic protocols for misophonia differs from other sound disorders such as tinnitus and hyperacusis, 45 (23.7%) reported they are not sure about the diagnostic protocols of misophonia, and 16(8.5%) reported that diagnostic protocols of misophonia are similar as tinnitus and hyperacusis.

Audiologists' perspectives regarding the best diagnostic protocol for individuals with misophonia were asked. Most of the audiologists, 56 (29.47%), answered that a combined audiological and psychological protocol would best assess misophonia rather than a single diagnostic protocol. The detailed response of all the audiologists regarding the best diagnostic protocol for misophonia is illustrated in **Table 2**. To learn about the audiologist's viewpoint on the assessment of misophonia, an open-ended question was asked about the audiological test batteries that can be used to assess misophonia from the audiological perspective. Among 190 audiologists,

118 (62.1%) audiologists responded to that open-ended question. Most of the audiologists suggested test batteries approach would be suitable for assessing misophonia, and they recommended more than one test for the assessment procedure. Pure tone audiometry and Uncomfortable loudness level (UCL) tests are the two significant tests suggested by 70(59.32%) of the audiologists. The response of all the audiologists regarding the use of test batteries for the assessment of misophonia is illustrated in **Table 2**.

Insert table 2 here
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### **Audiologist Perspectives on the management of misophonia**

The audiologist perspectives on the importance of a multidisciplinary team approach in managing misophonia were assessed, and most audiologists 182 (95.79%) reported the need for a team approach to managing misophonia. Most participants, 103 (54.21%), reported that misophonia management differs from tinnitus and hyperacusis. However, 63(33.16%) audiologists reported they were not sure about the management of misophonia, and 24 (12.63%) audiologists reported no differences in the management protocol of misophonia from tinnitus and hyperacusis.

Questions were asked regarding the professionals managing misophonia at their work facility. More than half of the audiologists, 96 (50.53%), mentioned that audiologists, psychologists, and Neurologists are the primary team members in managing misophonia at their workplace. Besides these team members, a few audiologists mentioned that ENT specialists and occupational therapists are also involved in the management program. The detailed response from all the audiologists is shown in **Table 3**.

Audiologists' perspectives on misophonia management were assessed by asking an open-ended question about the approaches that can be used to manage misophonia from the audiological domain. Among 190 audiologists, 118 (62.1%) audiologists responded to that open-ended question. Most audiologists suggested trials with multiple approaches would be suitable for managing misophonia as the efficacy of approaches varies from individual to individual. The majority of the audiologists suggested cognitive behavioral therapy (79.66%), tinnitus retraining therapy (70.33%), desensitization therapy (60.16%), and counseling (60.16%) to be the effective

approaches that could help in the management of misophonia. The detail of the management approaches is illustrated in **Table 3**.

Insert table 3 here
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## **Need for Research on misophonia**

Audiologists' viewpoint on the need for Research on misophonia was assessed on a three-point rating scale. The result showed that 162(85.26%) of the audiologist agreed on the fact that there is a lack of Research on misophonia from the audiological perspective, and 13(6.8%) of the audiologist rated neutral about the lack of Research, which would suggest they are not aware of the Research done on the misophonia, and 15 (7.89%) of the audiologist disagree for the lack of Research on the misophonia from the audiological perspectives.

## **Association between education qualification and misophonia case handling skills**

The chi-square test assessed the association between the highest education qualification and confidence in handling misophonia cases. Test results showed that education qualification significantly impacts confidence in handling cases with misophonia. The audiologists with a higher degree of qualification in audiology, i.e., Post-graduation and Ph.D., reported the ability to handle cases with misophonia than the audiologists with undergraduate degree  $\chi^2(4, N=190) = 0.002 (p < 0.05)$ . The result of the chi-square test is illustrated in **table 4**.

Insert table 4 here
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## **DISCUSSION**

Misophonia is the most commonly occurring disorder with a high prevalence rate (Zhou et al., 2017). Although the accurate assessment and management of misophonia is still the topic of debate, it is clear that audiologists are the team's key members, and it falls in the audiology domain. Wu et al. (2014) conducted a study involving a sample of 483 US college students using an online questionnaire, which revealed a prevalence of misophonia at 19.9%. Similarly, a recent study by Naylor et al. (2021) reported clinically significant misophonia in 49.1% of the study sample population among the U.K. undergraduate medical student population. These data showed

Prevalence of misophonia is increasing with time. However, in our study, 86.84% of audiologists reported no cases of misophonia at their workplace. This result showed that audiologists are not considered team members in the assessment and management of misophonia in India, and there is a lack of referrals to audiologists'. Hence, it is essential to create awareness about the roles of an audiologist in the assessment and management of misophonia among professionals as well for the better intervention of patients with misophonia from all possible perspectives.

Our study aimed to study the present level of awareness about misophonia among working audiologists all over India. The study by Porcaro & Danesh. (2019) reported a lack of awareness about misophonia disorder among academics. Similar to their findings, our study also showed a lack of awareness and confidence in the assessment and management of misophonia among audiologists in India. Misophonia is a disorder that can occur in isolation or association with other sound disorders, such as tinnitus and hyperacusis ( Jastreboff & Jastreboff., 2002). It is necessary to differentiate misophonia from tinnitus and hyperacusis, as this is a separate entity with different neurophysiological mechanisms behind them. With time, awareness about hyperacusis and tinnitus is increasing among audiologists, and many cases are diagnosed and treated appropriately in the audiology clinic. However, misophonia is lagging, and audiologists have made no effort to understand this disorder and the inclusion of the disorder in the audiology domain.

One possible reason for this problem could be the lack of misophonia education in India's undergraduate and post-graduation syllabus. Tinnitus and hyperacusis are included as separate disorders in the syllabus of masters of audiology, but misophonia/phonophobia are not included. Hence, it is essential to include misophonia education in the education syllabus of the universities to educate the students about misophonia in detail, which could help to expand the field of audiology.

Misophonia is a challenging topic to study and a challenging disorder to diagnose and treat. The exact etiology and neurophysiological mechanism behind it have not been proven yet. The result of our study showed that 34.74% of audiologists included in the study believed that the misophonia's etiology could be either neurophysiological or psychological. However, no studies are reported in the literature from the audiological perspective to know about the physiological mechanism of misophonia using audiological test batteries. The lack of Research on misophonia

from the audiological perspective could either be due to the lack of knowledge about misophonia among audiologists or the lack of misophonia cases getting referred to audiology clinics.

Patients with misophonia are unaware of the professionals involved in diagnosing and managing their condition as there is a lack of awareness among the general public, especially in developing countries like India. Therefore, it is the professionals' role to make appropriate referrals to the concerned professionals. Hence, it is essential to spread knowledge about misophonia among the general public and professionals so that the patient with it would get appropriate treatment from the concerned professionals.

The assessment and management of misophonia are not known yet. Especially from the audiological domain, much less work has been done to assess and manage misophonia. The result of our study showed that most audiologists believed the tests batteries approach, including pure tone audiometry, UCL testing, and electrophysiological tests, would be appropriate for the assessment of misophonia. In the patients with misophonia, Jastreboff (2013) reported. Loudness discomfort level (LDL) may be average or at a reduced level. Similarly, Jager et al.(2020) have reported that misophonia can occur with and without an average hearing threshold through the administration of pure tone audiometry (PTA) in a few subjects with misophonia. However, there are no studies done in the literature using test batteries, including both behavioral and electrophysiological measures. Hence, these data showed a need to conduct a study on misophonia using the test batteries from the audiology domain to come to the effective conclusion.

The result of the audiologist's perspectives regarding the management of misophonia showed that most audiologists believed that audiological approaches such as cognitive behavioral therapy, retraining therapy, desensitization therapy, and counseling could help manage misophonia. However, very few experimental studies are done in the literature to know the efficacy of these treatment approaches. Few case reports have been published showing CBT's effectiveness for clients with misophonia. In the study by Eijsker et al. (2017), 48% of the participants improved after the eight sessions of CBT on the Clinical global improvement scale. Similarly, Jastreboff & Jastreboff (2002) reported that retraining therapy should work better with misophonia patients than with tinnitus patients because misophonia involves an external trigger, which can be manipulated to potentially eliminate the conditioned response. Hence, it is the role of audiologists

to explore the efficacy of these audiological treatment approaches in the future for patients with misophonia.

## CONCLUSION AND LIMITATION OF THE STUDY

Our study concludes that many audiologists are unaware of their role in the assessment and management of misophonia all over India. Audiologists need to be aware of their role in patients with misophonia, and they should be active members of the team to understand misophonia from different perspectives. Team-based diagnosis and management protocol, including an audiologist as the team member, is very much necessary for assessing and treating an individual with misophonia. Hence, it is necessary to spread awareness among team members for the appropriate referral to the concerned professionals as per the need of the patients. Treatment should be individualized depending on the co-morbid condition and its severity. Depending on the severity, associated conditions, and the client's need, the team members' role needs should be highlighted. Hence, we strongly highlight that audiologist needs to be an active team member to assess and manage misophonia, which is lacking in the current scenario. There is also a need to spread awareness about the role of audiologists among the general public and the team members. Our study could not assess team members' perspectives, such as psychologists and neurologists, regarding the role of audiologists in the assessment and management of misophonia. This type of study is necessary to conduct in the future to know about their viewpoint on the audiologist's role, which could help to create awareness among the professionals about the role of audiologists in misophonia.

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## Data Availability Statement

The datasets analyzed during the current study are available from the corresponding author upon reasonable request.

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### ***Figure legends***

***Figure 1: Illustration of awareness about misophonia among audiologists in India***

**Table 1:** *Audiologist perspectives on misophonia domain and etiology of misophonia*

Misophonia domain		Etiology of misophonia	
Domain	Percentage of participants (%)	Etiology	Percentage of participants (%)
Auditory	55(28.95%)	Neurophysiological	47 (24.74%)
Psychiatry	35 (18.42%)	Psychological	39 (20.52%)
Neurology	14 (7.36%)	Anatomical	5 (2.63%)
Auditory and Psychiatry	29 (15.26%)	Neurophysiological and psychological	66 (34.74%)
Auditory and Neurology	10(5.26%)	Psychological and anatomical	3 (1.58%)
Psychiatry and Neurology	10(5.26%)	Neurophysiological and anatomical	5 (2.63%)
Auditory, psychology, and Neurology	21(11.05 %)	Neurophysiological, anatomical and psychological	11 (5.79%)
Not sure	16 (8.42%)	Not sure	14 (7.37%)
<b>TOTAL</b>	<b>190 (100%)</b>	<b>Total</b>	<b>190 (100%)</b>

**Table 2:** *Illustration of best diagnostic protocol and audiological test batteries recommended by audiologists for the assessment of misophonia*

Best diagnostic protocol		Audiological test batteries	
Protocol	Percentage of audiologist (%)	Audiological tests	Percentage of audiologist (%)
Audiological	27(14.21%)	ABR Site of lesion testing	36 (30.51%)
		Oto-acoustic emissions with and without contralateral suppression	47 (39.83%)
Psychological	16(8.42%)	Uncomfortable loudness level (UCL) testing	70 (59.32%)
Neurological	5 (2.63%)	Pure tone audiometry	70 (59.32%)
Audiological and psychological	56 (29.47%)	Behavioral assessment using misophonia Questionnaires	23 (19.49%)
Psychological and Neurological	3 (1.76%)	Cortical auditory evoked potentials	36 (30.51%)
Audiological and Neurological	6 (3.16%)	Immitance audiometry	36 (30.51%)
Audiological, psychological and neurological	48 (25.26%)	High frequency audiometry	23 (19.49%)
		Loudness rating scales	11 (9.2%)
Not sure exactly	29 (15.26%)	Not sure	11 (9.2%)
<b>Total</b>	<b>190 (100%)</b>	<b>Total</b>	<b>118 (100%)</b>

**Table 3:** Representation of team members involved in the management of misophonia in different set-up all over India and audiologist perspectives on the management of misophonia

Team members involved		Audiological Management approaches	
Professionals	Percentage (%)	Treatment approaches	Percentage (%)
Audiologist	3(1.58%))	Cognitive Behavioral therapy (CBT)	94 (79.66%)
Psychologist	2 (1.05%)	Tinnitus Retraining therapy	83( 70.33%
Neurologist	2 (1.05%)	Desensitization therapy	71 (60.16%)
Audiologist and Neurologist	6 (3.16%)	Counseling	71 (60.16%)
Audiologist and psychologist	50 (26.32%)	Stress therapy	2 (1.69%)
Psychologist and Neurologist	2 (1.05%)	Drilling of the triggers	1 (0.85%)
Audiologist, psychologist, Neurologist	96 (50.53%)	Use of ear protection devices	2(1.69%)
Audiologist, psychologist, Neurologist, ENT specialist	3 (1.58%)	Music therapy	2(1.69%)
Audiologist, psychologist, Neurologist, Occupational therapist	2 (1.05%)	Not sure	12 (10.17%)
None	24 (12.63%)		
<b>TOTAL</b>	<b>190 (100%)</b>	<b>TOTAL</b>	<b>118 (100%)</b>

**Table 4:** *Results of chi-square tests illustrating the association between the highest education qualification and confidence in handling cases with misophonia*

<b>Chi-Square Tests</b>			
	Value	df	Asymptotic Significance (2- sided)
<b>Pearson Chi-Square</b>	16.713	4	.002
<b>Likelihood Ratio</b>	15.902	4	.003
<b>N of Valid Cases</b>	190		

