

## **Awareness of Vocal Hygiene Among Kattunayakan Tribe**

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**Abstract**

Voice is a crucial communication tool, which is produced by the vibration of vocal folds. Vocal fold scarring can affect voice quality, excessive use of voice can also affect the quality of voice. Vocal hygiene is a daily routine of healthy behaviors to keep your vocal folds in good condition. The study looks at the vocal hygiene awareness among Kattunayakan tribe. To assess the awareness of vocal hygiene, the study used 15 close set of questionnaires. The statistical research shows that the Kattunayakan tribe has relatively little expertise of vocal hygiene.

**Introduction**

A strong, useful, and creative communication tool is the human voice. Voice is capable of expressing both exquisite emotional delicacy and complex intellectual concepts. The voice is the main medium for influencing one's fellow countrymen and projecting one's own individuality (Sataloff, 2006).

Talking, singing, laughing, sobbing, screaming, shouting, humming, and other vocal expressions are all examples of human voice use. The vocal folds (vocal cords), which are the main sound source for human speech, provide the human voice frequency. Unvoiced consonants, clicks, whistling, and whispering are all made via different methods from the same general area of the body. Vocal folds, which are situated opposite one another in the larynx, vibrate to create the sound of your voice. Between the tip of the tongue and the top of the trachea, which serves as the entrance to the lungs, is where the larynx is situated. Vocal folds are open when you are not speaking, allowing you to breathe. But when it's time to talk, the brain plans a set of actions. Air from the lungs blows past, causing the vocal folds to snap together and vibrate. The mouth, nose, and throat serve as resonating cavities to modulate the sound waves that are created by the vibrations. The size and structure of your vocal folds and resonating cavities impact the quality of your voice, including its pitch, volume, and tone. Because of this, every person's voice sounds different.

Due to the size disparities between males and females in the larynx, adult males and females often have vocal folds of various diameters. Adult male voices often have greater folds and a lower tone. Male vocal folds range in length from 17 to 25 millimeters (measured vertically in the opposite diagram). The female vocal folds have a length of 12.5 to 17.5 mm. Men and women have different-sized vocal folds, which results in their having different-pitch voices. Men's and women's singing voices are divided into categories, and genetic variations also exist within the same sex. Men can sing in the baritone, baritone, tenor, and countertenor ranges, while women can sing in the contralto, alto, mezzo-soprano, and soprano ranges. See voice type for a list of further categories for operatic voices. There are other reasons why male and female voices differ from one another. Men often have a larger vocal tract, which results in a voice that normally has a lower timbre. The vocal folds themselves are largely unimportant in this.

People employ voices in their professional lives. The voices of singers, educators, medical professionals, legal professionals, nurses, salespeople, and public speakers are among those who place heavy demands on them. They are more likely to experience vocal issues as a result. 17.9 million adult Americans report having voice issues, according to estimates. By taking care of your voice, you can prevent some of these problems.

The voice is an ideal communication instrument, an essential element of interpersonal interactions and artistic expression, and it is present in every culture on earth. The goal of World Voice Day, which was first observed in Brazil in 1999, is to educate the public about the value of the voice and to raise awareness of any vocal disorders. It is now observed every year on April 16th.

Regardless of the substance of the words, the voice can transmit a wide range of emotions, including anger, joy, grief, and fear. An individual's accent and cadences can provide us information about their place of origin. In a nutshell, we may argue that the voice is able to communicate our identity, our origin, and our intended destination all at once. Consider the intriguing experiment conducted by the ethologist Konrad Lorenz, who, in the absence of a duck that served as the mother, started talking to a group of ducklings on a regular basis. At the time of birth, the ducklings displayed a sensitization to his voice, indicating a genuine preference for the human voice. When considering human beings, it appears that all children are born with the ability to communicate, most notably through crying, which serves as a major means of alerting caregivers to a child's specific wants and emotions.

Vocal hygiene, contrary to what the majority of people may believe, does not refer to washing your mouth, but rather to carrying out the necessary care for a healthy voice. As a speech-language pathologist, we make it a point to provide any client we work with voice therapy advice for good vocal hygiene habits. Naturally, there are a variety of techniques to maintain good vocal hygiene, and each client will have their own preferences since many clients may already be doing so.

## **Following These Guidelines Will Help You Maintain Good Oral Hygiene**

Avoid using dehydrating substances excessively, such as alcohol and caffeine; daily increase in water consumption in order to lessen coughing and cleaning of the throat; it is safer to either do a silent cough or take sips of water to flush out any mucus or residue (where you push air out), No screaming, don't talk for a long time in a whisper or at a loud voice. Don't talk for long periods of time, ensuring that background noise is minimized whenever someone is singing or speaking (when background noise is present you may tend to want to raise your voice, which will strain your voice), no smoking. When you are sick, avoid attempting to speak despite a voice loss.

## **Review of Literature**

Humans' voice boxes or larynxes are responsible for producing sound. Within the voice box, there are two vocal cords spread out. The vocal cords vibrate when the lungs force air, creating sound. A different style or tone of voice results from having tight, narrow vocal cords as opposed to loose, thick cords.

An individual's voice helps to define who they are. In addition to influencing how others perceive a person's age and gender, studies have revealed that a person's intonation, loudness, and overall vocal qualities can also influence how others interpret their emotional state and personality. According to Scherer, Banse and Wallbott (2001), listeners can determine and infer speakers' emotions, such as anger, grief, fear, and neutrality, from their vocal depictions.

Duffy & Hazlet (2004) investigated the primary prevention of occupational dysphonia among 55 training teachers, who were randomly assigned to three groups, including control, indirect and direct group. The vocal performance of the three groups was measured at two points; first before any teaching or training began, and again after the first teaching practice. Acoustic and self-perceptual measurements were used to assess the multidimensional outcomes. The self-rating scores varied in agreement with the acoustic results. The acoustic results showed deterioration from first to second measure for control group, improvement for direct group and no change for the indirect group. The study indicated that the training had been effective.

Mara, Oliveira & Gisele (2009) investigated on vocal hygiene for voice professionals and came to a conclusion that vocal hygiene should be considered only as a component of broad vocal rehabilitation program, additionally some of findings may be applied to both dysphonic and healthy individual in order to facilitate vocal wellbeing.

Nallamuthu & Mariswamy (2021) analyzed the outcomes of vocal hygiene program in facilitation vocal health in female schoolteachers with voice problems and concluded that through VHP facilitated in improving the teacher's awareness of risk phono-traumatic behaviors and vocal health, its efficiency was limited in producing physiological improvement in teachers.

Boominathan, Rajendran, Nagarajan, Seethupathy, & Gnanasekar (2008) compared vocal abuse and vocal hygiene practices among different level professional voice users in India (a survey) The findings from this study would enable speech and voice pathologists to plan strategically to prevent voice problems reach these voice professionals.

Pomaville & Radford (2020) analyzed the effectiveness of vocal hygiene education for decreasing At-Risk vocal behaviors in vocal performers and concluded that vocal performers who participate in VHE program will demonstrate an increase in their knowledge about voice production and vocal hygiene.

Hosoya, Kobayashi, Senarita, Kuroda, Misawa, Tanaka, Takiguchi, Tashiro, Masuda, Hashimoto, Goto, Minami, Yamamoto, Nagai, Sayama, Wakabayashi, Toshikuni, Ueha, Fujimaki, Takazawa, Sekimoto, Itoh, Nito, Kada & Tsunoda (2018) studied vocal hygiene education program reduces surgical interventions for benign vocal fold lesions :randomized controlled trial and the results clearly indicate that the quality and features of the education program could affect the outcome of the intervention. We found that a reinforced vocal hygiene education program increased the rate of the resolution of benign vocal fold polyps and nodules in a multicenter randomized clinical trial.

Beeman (2017) determined the perceptions of voice teachers regarding students' vocal behaviors during singing and speaking and concluded that the majority of voice teachers participating in the current study believed there to be a relationship between the health of the singing voice and the health of the speaking voice. Furthermore, thorough analysis of participants' descriptive data revealed that voice teachers are purportedly working with injured voices and attempting to include vocal health in their instruction. Although a voice teacher is not obligated to pursue a speech-language pathology degree or voice specialist.

Bolbol & Elankeb (2017) investigated the risk factors of voice disorders and impact of vocal hygiene awareness program among teachers in public schools in Egypt and came to a conclusion that they are highly exposed to the risk of voice-related disorders. Increasing awareness about healthy behavior with the voice in their occupations will help in improving their quality of work and in minimizing any permanent impairments and/or disability

Ghorbani, Hassanvand, Vahab & Hosseinzadeh (2019) Evaluated the Reliability and Validity of Actors' Vocal Hygiene Knowledge Questionnaire and the results of this study indicate that the "Assessment of actors' vocal hygiene knowledge" questionnaire has good validity and reliability for actors.

Lopez, Fuente & Contreras (2019) investigated on the Inadequate vocal hygiene habits associated with the presence of self- reported voice symptoms in telemarketers can concluded that using the voice in noisy environments and talking without taking breaks were both

associated with the presence of specific vocal symptoms. This study provides some evidence about the interaction between these two inadequate vocal hygiene habits that potentiates vocal symptoms.

Rodríguez-Parraa, Jose Casadoc (2011) Compared voice-therapy and vocal-hygiene treatments in dysphonia using a limited multidimensional evaluation protocol and results suggest superiority of a voice-therapy (direct treatment) approach over a vocal-hygiene program (indirect treatment). This advantage is on the majority of the 8 continuous variables analyzed (aerodynamics, acoustic, and self-rating), including qualitative perceptual, laryngoscope and spectrographic voice-dimensions. The stability of changes is extended during a post-treatment follow-up period.

### **Need for the Study**

Evaluating awareness and assessing knowledge on vocal hygiene in **Kattunayakan** tribe helps the tribal to understand the measures for vocal hygiene and vocal health which provides awareness among the tribals regarding certain issues such as dehydration, vocal abuse, smoking, alcohol consumption that can lead to hurdle or complication of voice. Nevertheless, the lack of knowledge is gained by sharing the knowledge and measures to be taken for vocal health and significances of vocal hygiene.

### **Method**

#### **Aim**

The current study's objective was to ascertain the level of vocal hygiene awareness in the Kattunayakan tribal group.

The study was carried out in two phases.

#### **PHASE 1: Developing Questionnaire**

A set of 15 closed set (yes\no) of questions was prepared on vocal hygiene. The questionnaire was originally written in English and later translated to Malayalam by a Professor teaching Malayalam. The prepared questions were than validated by 10 speech language pathologists who are working in the field for more than 5 years. The corrections and suggestions advised by the speech language pathologists were incorporated and the final questionnaire was ready which is as below.

1. Are you aware of vocal hygiene? (yes\no)
2. Do you shout or yell frequently? (yes\no)
3. Do you clear your throat frequently? (yes\no)
4. Do you sing often? (yes\no)
5. Do you drink minimum 3 liter of water every day? (yes\no)
6. Do you drink alcohol frequently? (yes\no)
7. Do you use tobacco frequently? (yes\no)
8. Do you eat spicy food every day? (yes\no)

9. Do you have any breathing difficulty? (yes/no)
10. Do you think whispering can affect your voice? (yes/no)
11. Do you experience GERD? (yes/no)
12. Do you consume caffeine\carbonated drinks? (yes/no)
13. Do you think sinus can affect your voice? (yes/no)
14. Do you smoke frequently? (yes/no)
15. Do you experience any kind of irritation in your throat while shouting? (yes/no)

## **PHASE II: Participants**

Twenty Kattunayakan tribe in the age range of 20-40 years who are presently staying within the tribal community and irrespective to male and female who are free from any psychological illness, hearing disorders, neurological issues and speech language disorders.

### **Stimulus Used**

The prepared closed set of 15 question was used for the collection of data.

### **Procedure**

The validated list of questions was administered on the selected tribal group. the questions were read to them and as per their response (yes/no) was marked.

### **Analysis**

The response from the tribal community was collected and further a score of '1' for the response 'yes' and '0' for the response 'no'. The accumulated data was further subjected to statistical analysis and the results are discussed below.

### **Results and Discussion**

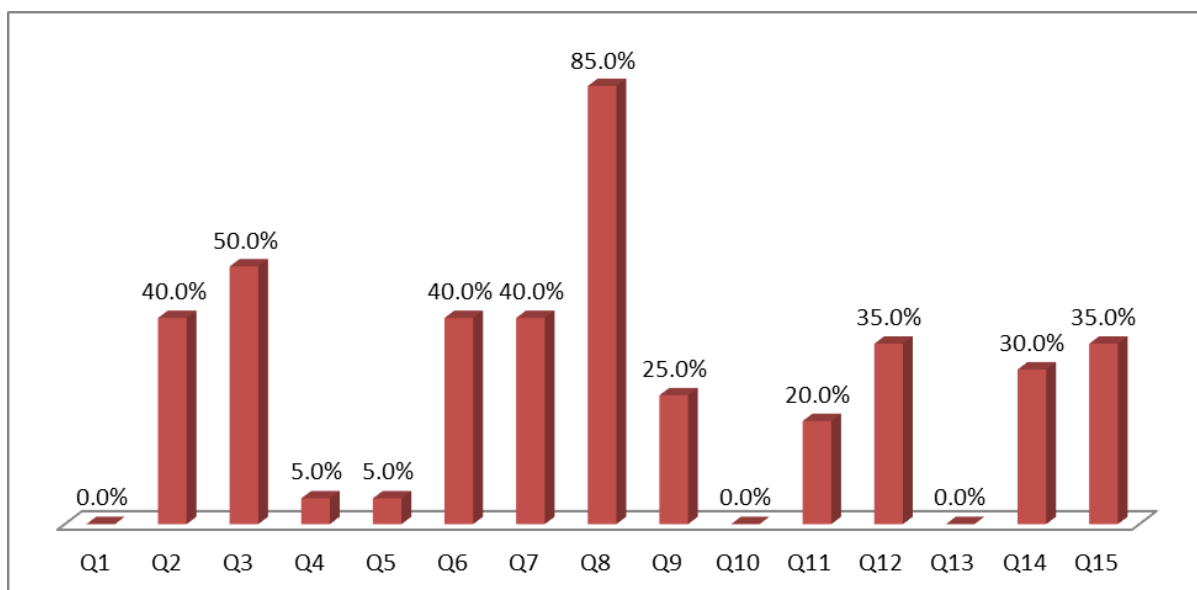
The aim of the study was to analyze the awareness of vocal hygiene among Kattunayakan tribe in the age range of 25 to 40 and the results obtained from the study are discussed below.

Table 1:

*shows the respond of the tribe regarding the awareness of vocal hygiene*

	response (0)		Response (1)		Testing proportion (awareness comparison against 0)	
	Count	Row N %	Count	Row N %	P value	
	Q1	20	100.0%	0	0.0%	--
Q2	12	60.0%	8	40.0%	0.002	sig
Q3	10	50.0%	10	50.0%	0.000	sig
Q4	19	95.0%	1	5.0%	0.318	NS
Q5	19	95.0%	1	5.0%	0.318	NS
Q6	12	60.0%	8	40.0%	0.002	sig
Q7	12	60.0%	8	40.0%	0.002	sig
Q8	3	15.0%	17	85.0%	0.000	sig
Q9	15	75.0%	5	25.0%	0.018	sig
Q10	20	100.0%	0	0.0%	--	NS
Q11	16	80.0%	4	20.0%	0.038	sig
Q12	13	65.0%	7	35.0%	0.004	sig
Q13	20	100.0%	0	0.0%	--	NS
Q14	14	70.0%	6	30.0%	0.009	sig
Q15	13	65.0%	7	35.0%	0.004	sig

Figure 1:  
*shows the response of the tribe regarding the awareness of vocal hygiene*



From Table 1 and figure 1, it can be seen that Question 1 was about the awareness of vocal hygiene. None of them were aware (0%).

Question 2 was about the vocal abuse. 40% tribals abuse their voice frequently.

Question 3 was about throat clearing. 50% of the people frequently clear their throat.

Question 4 was about how often the tribals sung. 5% participants sing often.

Question 5 was about the hydration. 5% people are aware to keep themselves hydrated.

Question 6 was about the consumption of alcohol. 40% participants consume alcohol frequently.

Question 7 was about tobacco usage. 40% of participants frequently use tobacco.

Question 8 was about intake of spicy food. 85% of participants regularly takes spicy food.

Question 9 was about the breathing difficulty. 25% of participants have breathing difficulty.

Question 10 was about the knowledge of voice problem while whispering. None of the participants were aware that whispering can cause voice problem (0%).

Question 11 was about GERD. 20% of participants has experienced GERD.



Question 12 was about caffeine and carbonated drink consumption. 35% of participants consume caffeine and carbonated drinks.

Question 13 was about knowledge of voice problem due to sinus. None of them were aware that sinus can cause voice problem (0%).

Question 14 was about frequent smoking. 30% of participants were frequent smokers.

Question 15 was about irritation in throat due to shouting. 35% of participants have irritation while shouting.

From the above table Q2, Q3, Q6, Q7, Q8, Q9, Q11, Q12, Q14, and Q15 are significant and Q1, Q4, Q5, Q10, Q13 are non-significant.

### **Discussion**

As can be seen from the results above, the Kattunayakan tribe have very low awareness rates for vocal hygiene. Awareness on the effect of voice due to smoking, drinking alcohol, clearing their throats, dehydration, eating spicy food, whispering, GERD, consuming carbonated beverages, caffeine, and sinuses. They are also least aware of the vocal hygiene requirements for maintaining voice quality. Good vocal hygiene is important because without taking care of your voice, you may be left without it. Vocal fatigue and soreness can have lasting, detrimental effects on your voice box, making it difficult for you to speak properly.

### **Conclusion**

Voice Production is a powerful communication tool in human life. Vocal Hygiene is a daily regimen of good habits to maintain the health of vocal folds and voice. The present study shows that the Kattunayakan tribe has the lowest awareness on proper vocal hygiene. Awareness program and camps are important to let them know how much beneficial voice is in our daily life these programs help to give a brief idea on vocal hygiene tips, and vocal health. knowledge on certain measures for impaired voice can be shared among the tribal people which helps them to gain awareness on the quality of voice.

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