

**VOICE PROBLEM AMONG PERSONS RELYING ON
VOICE AS A PRIMARY TOOL OF TRADE IN DHAKA
CITY.**

By

Tazkia Tahsin

Session: 2014-2015



Bachelor of Science in Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

(The academic institute of CRP)

Faculty of Medicine

University of Dhaka

[August, 2019]

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A Research presented to the
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In partial fulfilment of the requirements for the degree of

B. Sc in Speech and Language Therapy

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Declaration

I, **Tazkia Tahsin**, want to confirm that any single discussion of my research project will not be harmful to others. All the sources I have used in this study have been cited correctly.

All errors or inaccuracies are my own.

Signature & Date

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4th year, B.Sc. in Speech & Language Therapy

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Dedication

This study is dedicated to my dear parents who have supported me through all odds and joined me in happiness.

Acknowledgement

I would like to express my sincere gratitude to all those who have contributed in different ways to the study.

First and foremost my deepest gratitude to the Almighty for giving me the passion and keeping me fit to complete the study.

I am extremely grateful to my supervisor Nahid Parvez Tonmay, lecturer of Bangladesh Health Professions Institute (BHPI), in the department of Speech and Language Therapy (SLT), for his excellent guidance throughout the research project and for being such an excellent supervisor. Without his guidance and persistent help, the dissertation would not have been possible.

In addition, thanks to Sharmin Hasnat, Clinical Head of SLT department for her great co-operation.

Incredible thanks to my parents, especially my mother for her cordial help and enormous support through the study and helping me in so many ways. I am also very thankful to my dear friends Syed Imran Ahmed, Khadiza Akter Ashika, Tazmina Islam Tithi and Hazera Khatun Mim for their great support and advice throughout the study.

Finally, I would like to thank all the participants of the study. I feel grateful for their co-operation.

Executive Summary

This study was conducted to find out the common voice problems among voice users in Dhaka city. Data was collected from 80 participants from different sectors, institutions and contexts of Dhaka city. This study was conducted by using cross sectional survey method.

Face to face interview with a questionnaire developed from Miller et. al (1995), Roy et. al (2004) and Ohlsson et. al (2012) study on prevalence of voice disorder was used as questionnaire to collect data from the participants.

Data was analyzed by descriptive statistical analysis. Statistical Package for Social Science-22 (SPSS) and Microsoft Excel 2007 was used for data analysis.

The professional voice users are prone to have voice problems. Professional voice users are persons earning his living or complete his degree by using his voice or any other person whose life could be affected with the loss of voice quality and endurance. Sometimes they face unwanted vocal conditions. But there are limited study regarding voice disorder, even there are some, these are on separated sectors, like only on teaching, singing, call center etc., but this one compiles all of them and makes a broad area of further research. This is helpful for making an overall treatment protocol. Frequently suffered voice problems were tired voice, weak voice effortful voice, pain in throat etc. Associated problems are slight effect on job performance.

The findings of present study suggest that it is need to run vocal training program (short term and long term) among professional voice users. This study would help to establish a collaborative management approach for voice problem. This knowledge would also be helpful for improving the referral system to speech and language therapy services in Bangladesh.

Key Words: Voice, Voice Problem, Tool, Tool of Trade

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List of Acronyms

Abbreviation	Elaboration
BHPI	Bangladesh Health Professions Institute
VP	Voice Problem
VU	Voice User
TOT	Tool Of Trade
TP	Treatment Protocol
TI	Therapy Intervention
SLP	Speech and Language Pathologist
SLT	Speech & Language Therapist
SPSS	Statistical Package for the Social Sciences

1.1 Introduction:

A good voice is a crucial component of human communication and thus an essential working tool for certain occupations with a vocal load. In modern societies, about one-third of the labor force works in occupations for which the voice is the primary tool (Zabret et. al, 2018).

Voice is an elementary element that helps us to communicate with others in a natural way. Voice is the sound which makes information easy to understand. The information may be speech, song or more (Harris, 2015). But when the normal functioning of the voice is failed to regulate then we call it voice disorder. According to Lockhart and Martin (2000), Professional voice user such as- teachers, preachers, call center operators, bus helpers, street hawkers, telemarketers, news reader, singer, politician, radio jockeys, barristers, vicars, dealers, sales people and air traffic controllers are mostly affected by voice problem and frequently attend for voice therapies. Among these professional voice users, some of them may have excessive voice load. In other countries, many studies have been conducted on professional voice users to see the effect on their voice for the excessive and found that most of the professional voice users have voice problems.

The voice is one of the most important tools for professionals who rely on voice. A good voice quality is essential for their livelihood but due to heavy vocal demands, they are thought to be at high risk of voice problems than the general population (Roy 2004). Several studies showed that the impact of vocal risk involves three level of three level of disability-vocal impairment, limitation in daily activity and participation restriction (Chen et. al, 2015).

Voice problem can be seen by vocal hyper function (Boone, 1983). Call center operators use their voice hyper functionally that creates vocal abuse. Sometimes they use scripts and use a particular voice for day by day and the voice become stressful for them. Speech and language therapists treat this kind of patient with voice disorder and manage them (Meyrhooff, Manoz, Angulo & Guzman, 2013).

Almost 8,55,212 teachers in which 2,08,9446 female teacher in Bangladesh without including national university, open university, few newly formed institute, medical college and public university teachers are using their voice as primary tools for teaching (Ministry of education, 2010). According to physician estimate 5%-10% teachers experienced with structural changes in their vocal folds and 10% teachers voice problem develop acute to chronic illness (Smolander, 2006). Prevalence of voice problem is higher in female teachers than male-teachers due occupation and gender effect (Vilkman, 1996).

Others professionals like telemarketers who use voice most of the time, have a higher prevalence (31%) comparing with college student (Jones et. al., 2002). Aerobics instructors are a new occupational who are frequently looking for speech therapy and voice clinic because of voice problem (Newman, 1998).

On 1st October 2012, there was an article published in the Daily New Age newspaper saying that there are 9,911 buses and 8,515 minibuses are functional in Dhaka city. According to the system of our country, the bus helpers have to yell to call passengers; and the street hawkers shout to sell goods, for that they are in the high risk of voice problem.

According to Fritzell (1996) information about the occurrence of voice problem is hard to find out among professionals. “There is a need to develop intervention strategies to improve the occupational wellbeing of voice professional” (Leppanen, 2009).

Speech and Language Therapy, though relatively growing profession, they work in the prevention, assessment and treatment of the voice disorder to improve the voice quality. Voice disorder can be successfully managed by scientific knowledge with clinical art.

I strongly believe that this study will help us to know about the voice quality of the professional voice users and it will have a positive impact to aware their voice and try to manage the use of their voice during conversation.

1.2 Literature Review:

The voice represents a basic working tool for carrying out certain occupations. Hoarseness, as a consequence of vocal fold lesions, presents an important cause of work-related absences for voice professionals (Zabret et. al, 2018).

Operationally voice problem can be defined as a problem in voice functioning reported by the persons who rely on voice as a primary tool of trade as that they face during their work. Voice problem may be tired voice, hoarseness, pain in the throat etc. those experienced by teacher during their voice functioning in classroom because of lecture delivery (Miller, 1995).

The aim of the study was to investigate if excessive use of voice has an impact on a person's normal speaking capability. Here, many voice professionals were examined for the research. Part by part, each will be disclaimed.

There are several classifications of professions according to occupational vocal demands. Koufman and Isaacson defined four levels of vocal users. The first level includes elite vocal performers (singers, actors), the second level encompasses professional voice users (clergy, lecturers, telephone operators), the third level is made up of non-vocal professionals (other teachers, doctors, lawyers) and the fourth level consists of non-vocal non-professionals (labourers, clerks).

The most important cause for vocal fold damage is long-lasting voice abuse or overuse, which is frequently detected in occupations with a high vocal load (Zabret et. al, 2018).

In terms of the general population, the estimated lifetime prevalence of voice disorders is 29.9% with a 6.6% possibility of having a current voice disorder. It can be assumed that the majority of the working force on sick leave due to voice problems is exclusively vocal professionals (Levels I-III, according to Koufman and Isaacson).

A meta-analysis of 6 papers on voice disorders in occupations with vocal load showed that more than 82% of the 2347 included subjects had voice problems at some time during their career. The prevalent causes of voice problems included the vocal load or respiratory tract infections. Teachers were most often affected by voice problems. There are also other studies reporting on high risk of voice disorders among teachers. As a matter of fact, professional voice users represent a vast majority of therapy-seeking population with voice disorders (Zabret et. al, 2018).

Teachers talk longer at higher pitches and somewhat louder at work than elsewhere. They moreover use their voices more than other professionals. Work-induced vocal loading has

been found to raise teachers' voice pitch and loudness and to make voice quality more strained (Rantala et. al, 2012).

Within the last decade there has been a growth in the call-center industry, with a growing awareness of the voice as an important tool for successful communication. Occupational voice problems such as occupational dysphonia, in a business which relies on healthy, effective voice as the primary professional communication tool, may threaten working ability and occupational health and safety of workers. While previous studies of telephone call-agents have reported a range of voice symptoms and functional vocal health problems, there have been no studies investigating the use and impact of vocal performance in the communication industry.

Call-center workers have prolonged voice use and heavy vocal loading, thus increasing the risk of occupational dysphonia, which is a voice disorder due to work-related overuse or abuse that threatens communicative, interactive and economic efficiency. Vocal loading maybe attributed to prolonged voice use, and the work environment, where background levels of noise may affect the quality, type and loudness of phonation in speech (Hazlett et. al, 2009).

Jones et al, compared the prevalence of voice problems among telemarketers compared to the general population and concluded that they were twice as likely to report one or more symptoms of vocal strain compared with controls. In addition, impaired work productivity due to voice problems occurred in 31% of the telemarketers surveyed.

Vocal health was evaluated by self-report and it is found that excessive use of voice causes, 'in some, most or all of the time', with 39% reporting hoarseness; 32% pitch change and 42% discomfort in the throat. The report suggests that existing risks can be controlled through good work design and the provision of information and training (Hazlett et. al, 2009).

Voice is not simply the tool for communication transmission, it is directly related to the working ability and efficiency of the single most sought after attribute sourced by employers in the industry, effective verbal communication and interaction. A better speaking environment improves listening because it increases speech intelligibility (Hazlett et. al, 2009).

1.3 Significance of the study:

Since, so far, not any study has been conducted regarding the impact on voice in this huge level, the investigator has chosen such topic. There has been studies conducted on voice or voice problem on individual sectors like singing, teaching, yelling etc., but this study has compiled all those and observed these whole group of people. As a result, this study helped to develop a treatment protocol. This study will help to identify the prevalence of voice problem among professional voice users. It will also find out the role and importance of Speech and Language Therapy in such area. It will help to run or start training program on voice using.

The way the voice is used depends on the demands of the situation. These demands may include the teacher's need to instruct or to maintain discipline, the minister's need to deliver a forceful sermon or to be consoling, or the sales person's need to be selling a product.

Although the voice is not visible to the eye during speech production, its absence or malfunction is obvious. The voice is easily taken for granted. We can traumatize it with constant use and frequent misuse. We can expose it to the harmful effects of smoke and alcohol and expect it to be unaffected (Casper & Leonard, 2006).

There is substantial epidemiological and physiological evidence supporting the view that groups such as teachers, singers, lawyers, and telemarketing workers are at risk of occupational health and safety voice problems (Hazlett et. al, 2009). They need to talk for a long time in a day and often over background noise which include vocal misuse. It's strange that most of the voice users are unaware of these voice users are unaware of their voice limitation and fail to identify early signs of vocal attrition. By this study the speech and language therapists would know the types of voice problems are more frequent within these people.

This study will be helpful for different organizations working in the voice area for including speech therapy service in their program for delivering a comprehensive treatment service. Thus the study might create a future prospect and is a very good resource for the promotion and provision of Speech & Language Therapy profession in Bangladesh as well as it would help for improving the referral system to this therapy service in Bangladesh. (Andrews, 2006, p. 326)

1.4 Research Question:

Is there any voice problem among persons who rely on voice as a primary tool of trade in Dhaka city?

1.5 Operational Definition:

Keywords: Voice, Voice Problem, Trade, Tool of Trade

1.5.1 Voice:

The voice is an integral part of that uniquely human attribute known as speech. The larynx and its capabilities are important in two broad areas: biological function and speech. The larynx houses the major source of sound used during speaking. The vocal folds produce a tone that becomes modified by the pharynx, palate, tongue and lips to produce the individual sounds of speech (Casper & Leonard, 2006). By voice, we produce sound and communicate with others.

In the research the investigator wanted to know when and how long the ‘voice’ is used and the impact of using it.

1.5.2 Voice Problem:

It should come as no surprise that, just like in any other physical task, there are efficient and inefficient ways of using voice. Excessively loud, prolonged, and/or inefficient voice use can lead to vocal difficulties, just like improper lifting can lead to back injuries. Excessive tension in the neck and laryngeal muscles, along with poor breathing technique during speech leads to vocal fatigue, increased vocal effort, and hoarseness. Voice misuse and overuse puts at risk for developing benign vocal cord lesions or a vocal cord hemorrhage (Casper & Leonard, 2006).

In the research, the investigator wanted to identify if there is any change on the participants voice due to the duration of use at their workplace which can be considered as voice problem; and the type and also how severe the voice problem is. He also wanted to know if this problem creates any difficulty while working.

1.5.3 Trade:

An early form of *trade* was known as the direct exchange of goods and services for other goods and services. Here, the term ‘trade’ was used for ‘livelihood’.

1.5.4 Tool of Trade:

‘Tools of trade’ is a term generally used to determine what property a person would commonly use for the purpose of making a living. Here the property or the thing that is used is voice.

1.6 Objectives:

1.6.1 General Objective (Aim):

The purpose of the study is to find out the impact on voice of the persons relying on voice as a primary tool of trade in Dhaka city.

1.6.2 Specific Objectives:

- Find out the socio-demographic status.
- Find out the characteristics of voice problem among the voice professionals.
- Find out if using voice at workplace as a voice professional causes voice problem.

This section outlines the methodological process of the study designed by the investigator to meet the study aim and objectives. The aim was to investigate the voice problem among persons relying on voice as a primary tool of trade in Dhaka city. This chapter discusses the methodology behind this study.

2.1 Study Design:

Cross sectional study design was used to conduct this study. Cross sectional study gives information about a large population from a smaller sample of persons (Bailey, 1997). By considering aim and objectives of this study investigator choose most suitable study design that was cross sectional design. The investigator has chosen cross-sectional study design for this study because it is an easy, quicker method and this study was completed within a short period of time. There was another reason for choosing the cross-sectional survey because cross-sectional survey is less expensive (Depoy & Gitlin, 1998). In cross-sectional study design no manipulation is performed to investigate variables and collect data objectively (Hicks, 1999). As it is an observational study and researcher record information without manipulating the study environment. It is that it can compare different population groups at a single point in a time. So, this method was appropriate. Investigator evaluates the problems raised on voice among the professional voice users in Dhaka City.

2.2 Study Place:

This study was conducted in various relevant places like schools, colleges, universities to collect data from the teachers; streets to take data from bus helpers, telemarketers, street-hawkers; call centers for the call center operators; hospitals for the doctors and so on. There are a number of places where the voice professionals work, so there's no place specific. But the investigator just emphasized the place Dhaka to work on.

2.3 Study Population:

The study population was a group of people using their voice in their day to day life on a daily basis for their livelihood as a primary tool of trade, as the investigator wanted to know the impact of this use of voice or if it creates any voice problem and if yes, then how much and how much does a person have to face on their workplace or in the surrounding. They can be- teachers, preachers, doctors, instructors, bus helpers, telemarketers, street hawkers etc. Since voice is the most used fact for a person and the vocal cord is the most used organ, the investigator needs to observe and find out the significant change it causes; and as these professionals are the highest amount of voice users using their voices at its optimum level, investigator has selected them as the study population.

2.4 Sample Size:

It is critical issue to determine the participant's number of sample size (Depoy & Gitlin, 1998). Depending on the population, data collection technique and procedure of recruitment the study sample size may be big or small (Depoy & Gitlin, 1998). A sample represents part of population and it's not possible to include the whole population which will present the population (Hannan, 2007). The investigator took a small number of samples as the investigator could analyze the data that come from the participant. The participants were selected who are mostly dependent on their voice for daily living, and based on that he created the inclusion and exclusion criteria. In Bangladesh, there no prevalence is available for the professional voice users. According to Hicks (1999), small numbers of participants are good to manage for the investigator and to give reliable results. For this reason, investigator selected 50 participants to judge the whole scenario.

2.5 Sampling Technique:

In this study the sample was selected through purposive convenience sampling procedure to accomplish the aim and objective. Convenience sampling method is an easy way of getting sample. This method contains some inclusion criteria to select the participant as the investigator can find out the actual snap of the situation that they face in their everyday life (Depoy&Gitlin, 1998). Convenience sampling is the sampling procedure of this study as it

allows choosing an interested group of participants illustrating some features of these groups (Silverman, 2000). It is one of the types of non-probability sampling and most of the time in quantitative research, purposive sampling is selected (Hicks, 1999). It is the easiest, cheapest and quicker method of subject selection (Bailey, 1997). In this study samples are purposively selected so researcher used purposeful sampling to choose sample. So, both the categories are appropriate for the study. Investigator was very concern to avoid the sample selection bias through ensuring predefined inclusion and exclusion criteria.

2.6 Sample Selection Criteria:

A research must go under some procedures and must have criteria of selecting samples form a population. In this research, investigator set an inclusion and exclusion criteria for selecting his desired sample.

2.6.1 Inclusion Criteria:

- People who are in professions where voice is mostly used.
- People who don't have significant voice problems, yet working on such profession for a period of time.
- People who are in such profession and has a significant voice problem after joining.
- Person may have any other diseases which has nothing to do with voice or doesn't affect it.
- Both male and female patients were selected.
- Patient who were willing to participate.

2.6.2 Reason of Inclusion Criteria:

The reason behind selecting such an inclusion-criteria is so obvious. The investigator wants to find out problem occurred on voice or the impact of using voice that much or does it apparently make any effect on voice for working on a voice-based profession, so he selected such people. He'll find this out by asking questions so he needs people working for a while. The person might or might not have voice problems because he'll find out if working on such a profession was the reason. He emphasized on working for a long time because it

will help him determine. Other diseases irrelevant to voice won't misguide him so he didn't bother that. Choosing both the genders will increase the number of samples. Selecting willing people is a condition of maintaining rule of a formal research.

2.6.3 Exclusion Criteria:

- Subjects who were unwilling or unmotivated to participant in this study were excluded.
- People who have a voice problem but not in such profession where voice is used.
- People who are not working for so long in a profession where using voice is the main rule.
- That person might or might not have voice problem.
- People having had a voice problem even before joining such profession.
- This person might or might not work for a long time.
- If a patient had history of surgery in vocal organ for their voice problem.
- Patients with neurological deficits (e.g. Stroke, neurodegenerative disease).

2.6.4 Reason of Exclusion Criteria:

Researcher can't force a participant to take part of his research so he had to exclude people unwilling to participate. He deducted the people working not for long because, either he won't have any problem for the reason of working; or working for a shorter period of time won't determine the voice problem he has already. He also deducted the people having a voice problem but not working on a profession where they use voice as a primary tool of trade; and as here, the researcher is looking for the voice problem as a result of working on voice-based profession, he had to take that decision. And that's why people having a problem before joining still working for a time period, were excluded because this may misguide. Investigator excluded people having neurodegenerative diseases because many disorders in central nervous system may affect voice also surgical conditions may have an effect on voice and this may make confused to collects data.

2.7 Data Collection Tool:

According to Presser & Korsnick (2010) a questionnaire is the heart of survey. The result of a survey research totally depends on its questionnaire. In quantitative research, researcher's deep-thinking ability and perfect analysis is very important and by Hicks (1999) "the researcher is the main 'tool' that is needed to collect data in a quantitative study". In this study the researcher collected all the data without any assistants, designing a questionnaire based on the study of Miller et al. (1995), Roy et al. (2004) and Ohlsson et al. (2012)'s research questionnaire regarding the prevalence of voice disorder among teachers, singers and general population which is attached in the Appendix section. Open-ended questionnaires allowed for more individual answers or responses which are exactly what is needed in this research. In the case of the study a structured questionnaire was helpful for the researcher as it allowed the researcher to find out answers specially related to research objectives. Questionnaire is very accepted and very helpful technique of data collation in health professions (Hicks, 2005). The investigator made the questionnaire in English and translated it with forward and backward translation system by independent translator. Investigator used Bangla while investigating because Bangla version of question is easier to understand for the participants and respond accordingly. Face-to-face interview was conducted because "Interviews conducted face to face is more innovative allowing the interview to interact directly and develop rapport with the interview" (Bailey, 1997). Physical instruments for the interview such as- pen, ink-pad, audio recorder, tape recorder was used to note other important things such as participants facial expression or emotion were noted on the survey during interview time. A consent form was signed before starting the interview where participants were given an explanation of the confidentiality and anonymity of the study as well as a clear understanding of the purpose of this study.

2.8 Data Collection Procedure:

Investigator collected data from the participants through face to face interview. According to Bailey (1997) interviews conducted face-to-face are more intimate, allowing the interviewer to interact directly and develop rapport with the interviewee which help put them at ease, face-to-face may encourage more candid responses. The disadvantage however face-to-face interview has the requirement of certain amount of effort to set up

the interview and the logistics of time and locations. When the participants fulfilled the inclusion criteria then permission was taken from them. Investigator clarified that the participant had the right to refuse to answer of question during completing questionnaire and he'd totally understand that. Investigator clarified to all participants about the aim of the study. Participants were ensured that any personal information will not be published anywhere. A consent form was signed prior to the survey starting. Investigator requested to the caregiver of illiterate participants to sign in consent form. Literate participants filled up the form by themselves. For the illiterate participants, investigator read the questionnaire and filled it up according to their response. After getting consent from the participants, demographic information with Bangla translated questionnaire was used to identify the voice problems among professional voice users. Before data collection the investigator selected a quiet place where participants felt comfort and were able to give adequate attention during data collection. Investigator spent approximately 20-30 minutes to complete a whole data collection. All the answers were recorded for more comprehensive analysis of the data.

2.9 Data Analysis:

Data was analyzed by descriptive statistical techniques (i.e. percentage, mean& standard deviation) using SPSS software, because descriptive statistics are commonly used to make sense of survey data (Hicks, 2000). Bailey (1997) suggested that descriptive statistics are those that describe, organize, and summarize data. It includes such things as frequencies, percentages, description of central tendency and descriptions of relative position. It is good to give “the percentages and means for all the criteria to understand subjects and variables” (Bailey, 1997). According to Hicks (1999), there are many ways to show descriptive data, such as table, pie chart and graph. In this study data were presented in table and pie charts.

2.10 Ethical Consideration:

The investigator maintained ethical consideration in all aspects of the study. At first the investigator took permission from ethical committee of the course coordinator of department of Speech and Language Therapy, Bangladesh Health Professions Institute (BHPI) to conduct the research project. According to Bailey (1997), consent form is needed to take consent from the respondents before conducting the research. It is their right to know about their participatory effects (Hicks 1999). For this reason, the investigator developed consent form. Participants were selected for this study according to selection criteria and then were informed appropriately through verbal and written way. Participants willingly and voluntarily signed into the project. Participants were free to withdraw their consent from the agreement. Researcher also explained to the participants about the purpose of the study. Participants would not be affected physically and mentally for participating in the study. Investigator also ensured there that all data and recorded information will be maintained confidentially. According to Depoy and Gitlin, (1998) confidentiality of research participants should be confined during result findings. The filled-up questionnaires disposed to maintain confidentiality after 6 months of the study completion. Information was shared with the supervisor.

Data were analyzed by descriptive statistics and percentages were calculated and shown through bar graph, pie chart and tables.

3.1 Demographic Information of the Participants

3.1.1. Gender of the participants

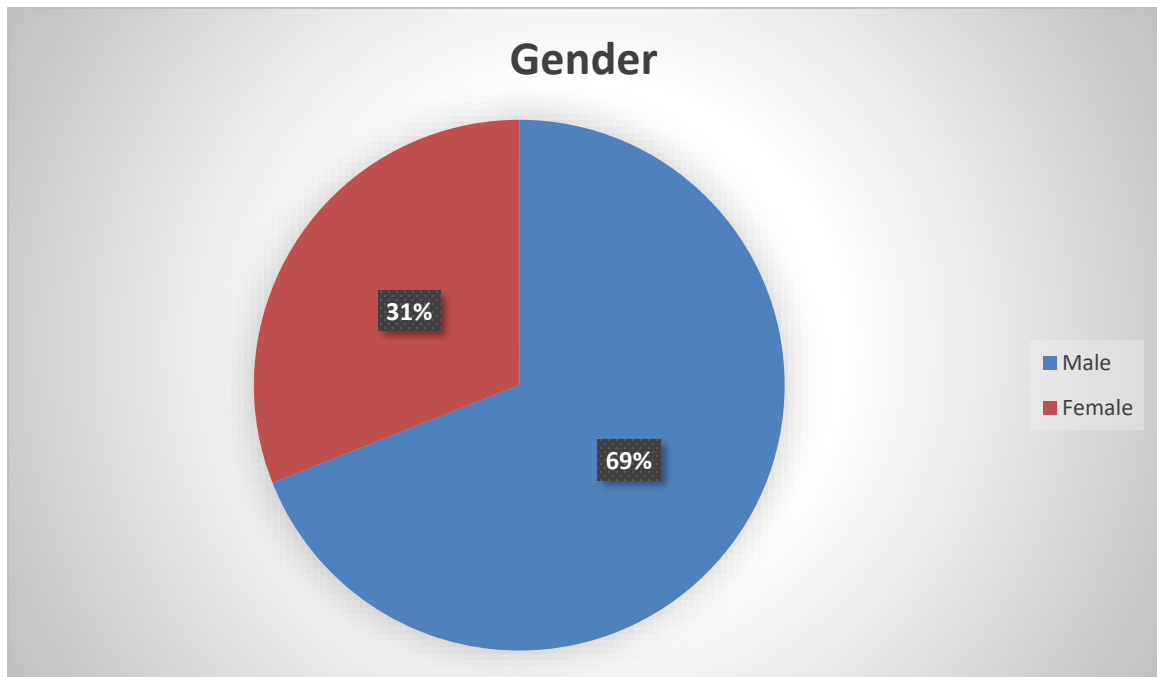


Figure - 3.1.1. Gender of the participants

Among 317 participants 69% were male and 31% were female.

3.1.2 Age of the participants

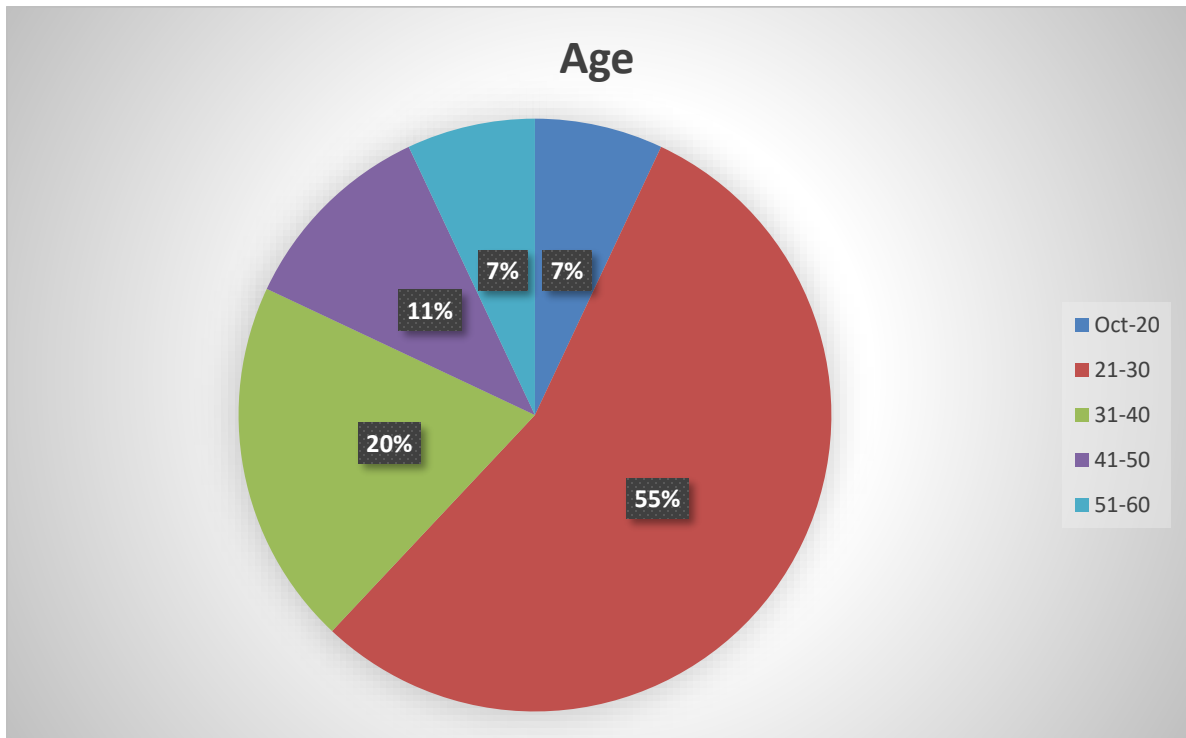


Figure - 3.1.2. Age of the participants

Maximum number of participants (55%) were in the age group of 21-30 years. 20% participants were in the age group of 31-40years. 11% participants were in the age group of 41-50years, 7% participants were in the age group of 51-60years and the rest 7% participants were in the group of 10-20years.

3.1.3 Occupations of the participants

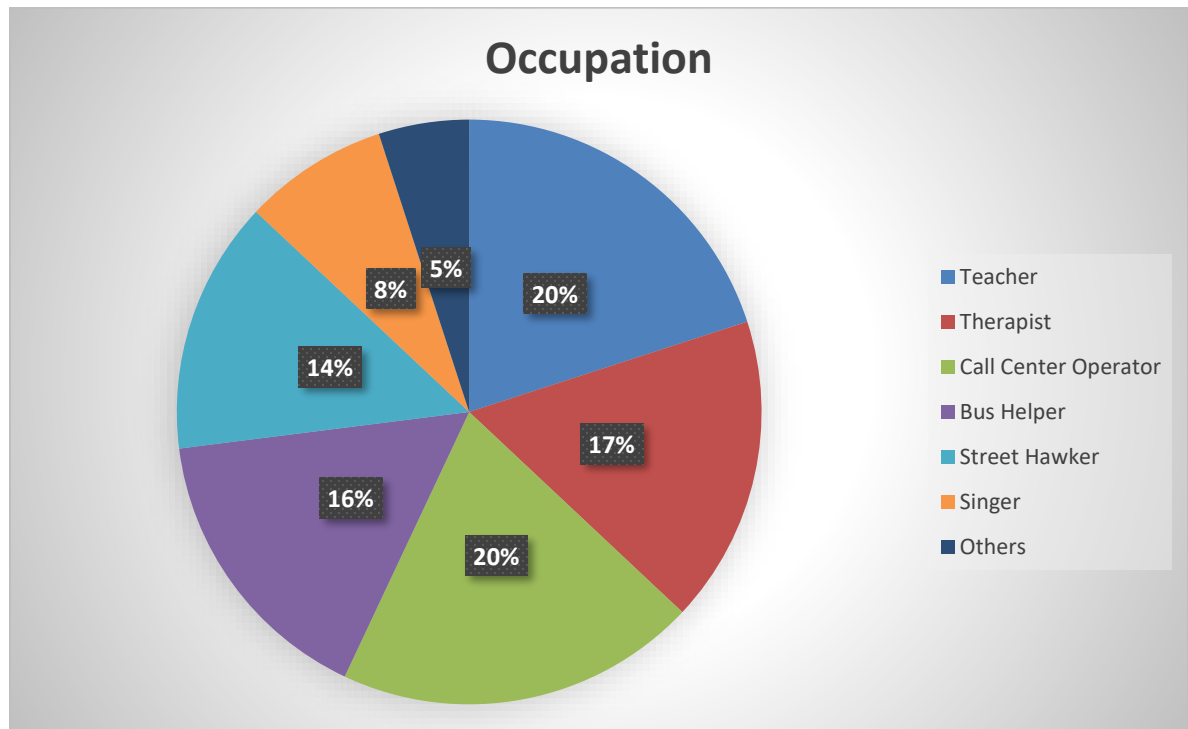


Figure 3.1.3: Occupation of the participants

In this study, total participants were 317 in number. Here, we characterized them by different categories which include basically teachers, therapists, call center operators, singers, bus helpers, street hawkers; there were also so many other categories which are tough to include all in the survey, so the investigator put them in the 'other' category.

In the study, 63 teachers participated, their percentage is 20%, there were 53 therapists (17%), call center operators were 20 in percent and 63 in number. There were 6 singers, 6.8 in percent and 52(16%) people were bus helpers, 44(14%) people were street hawkers, there were 26(8%) singers and 16(5%) people were from 'other' category.

3.1.4 Period of working

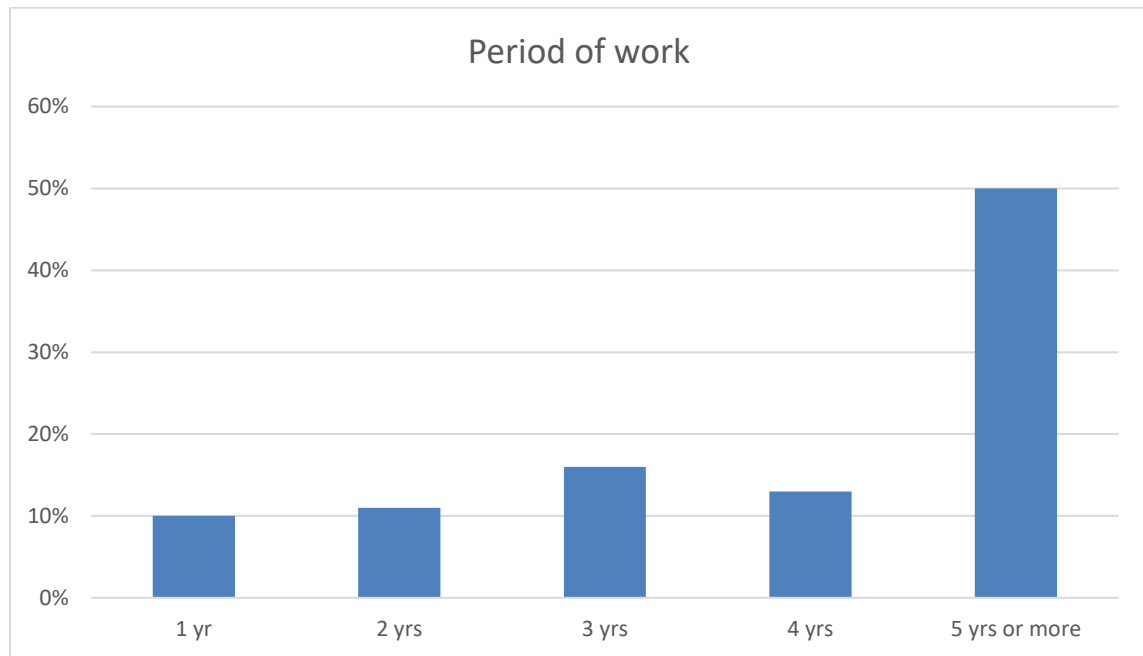


Figure 3.1.4: Period of working

The period of work determines the possibility of voice problem on a certain person because the longer the period is, the more the possibility of problem occurring in general sense. The investigator examined the period of work of the participants.

In the case of working period, 31(10%) persons worked for 1 year, 36(11%) persons worked for 2 years, 50(16%) persons worked for 3 years, 42(13%) person worked for 4 years and the highest number of 158 persons of the highest percentage of 50, worked for 5 years or more.

3.1.5 Duration of voice use

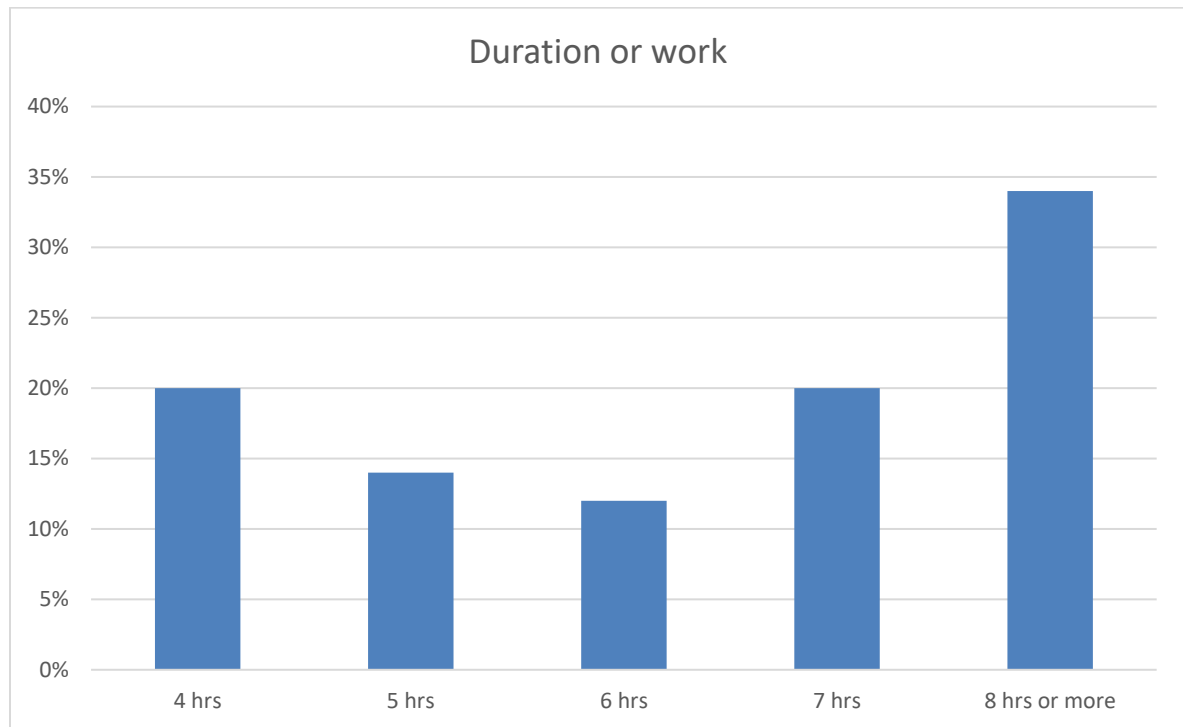


Figure 3.1.5: Duration of voice use

The duration of work is the most valuable variable because, for the professional voice users, it plays an important role on the daily usage of their voice.

In the case of duration of voice use, 20% of 64 people use their voice for 4 hours, 14 percent of 43 people use their voice for 5 hours, 12% of 39 people use their voice for 6 hours, 20% of 62 people use their voice for 7 hours and 34% of 109 people use their voice for 8 hours or more.

3.1.6 Frequency of problem

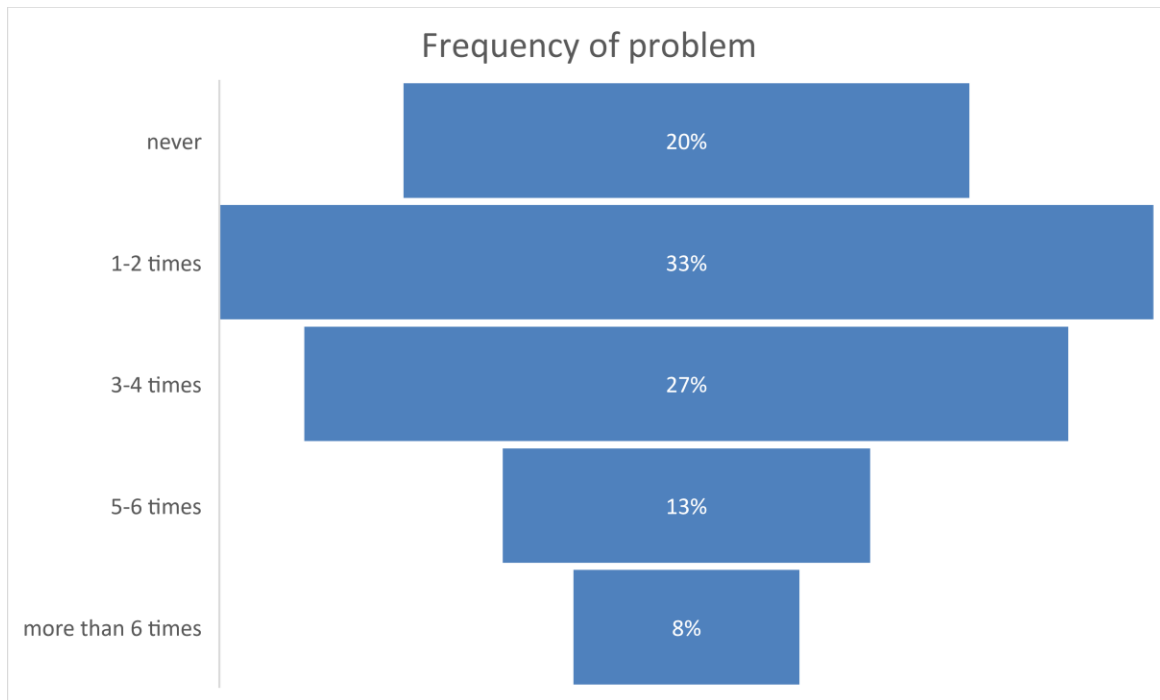


Figure 3.1.6: Frequency of problem

This frequency can tell us whether using voice keeps an impact on the voice problems or not. Here we can see that among the 317 voice professionals, 20% never had any voice problem. 33% had once or twice. 27% faced it 3 to 4 times, 13% had 5-6 times and a minimum percentage of 8% had it more than 6 times. We can say that it may have an impact slightly on the voice professionals.

3.1.7 Type of voice problem

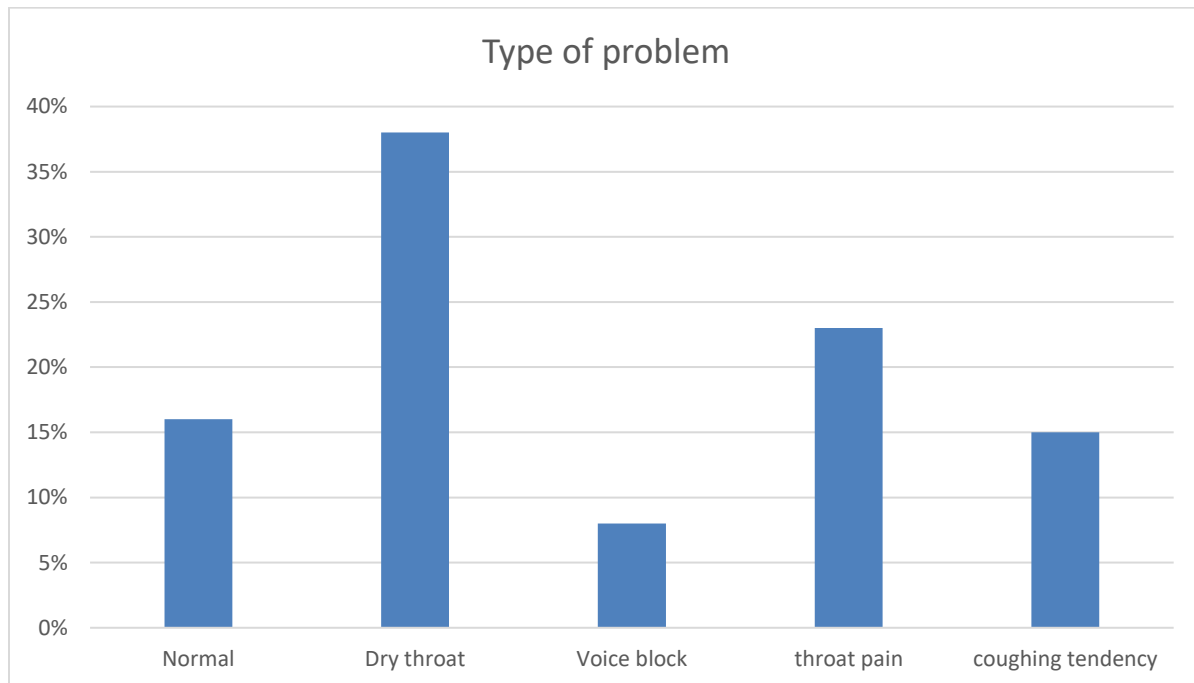


Figure 3.1.7: Type of voice problem

There were a number of types of voice problem, but the chart only shows the types shown in the participants.

15% people had no problem, a big number of people had dry throat, almost 38 percent, only 8% people had air blockage, 16 (18.2%) had throat pain and 18 (20.5%) had coughing tendency.

3.1.8 Severity of problem

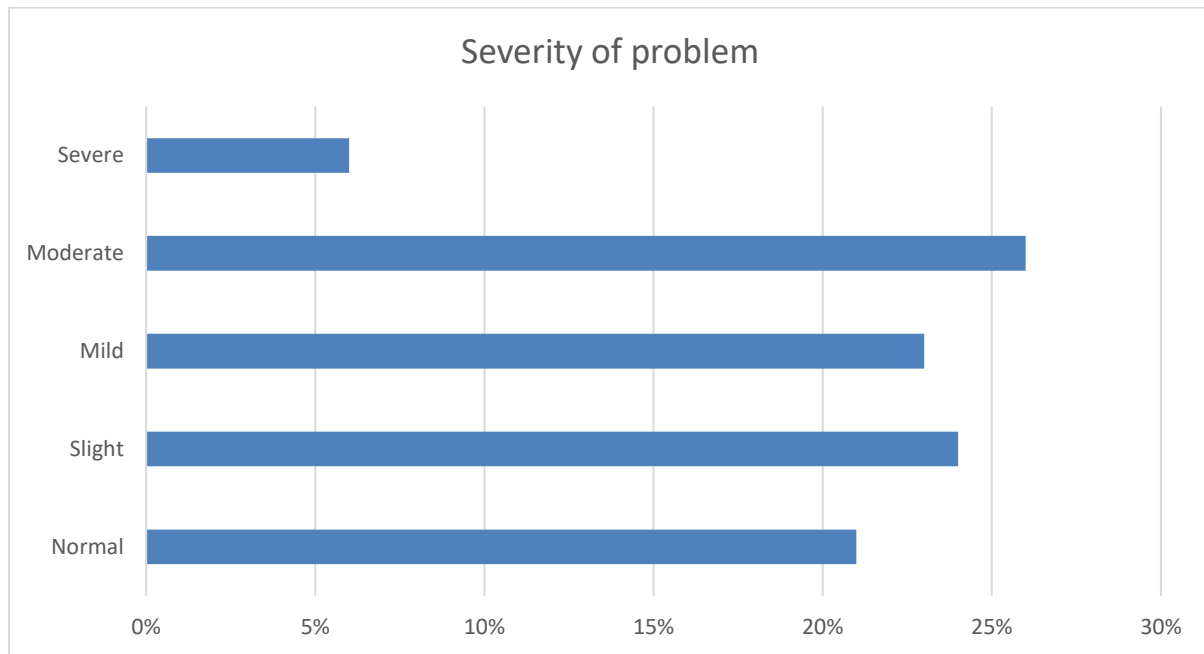


Figure 3.1.8: Severity of problem

Severity of a voice problem of a certain group of people can tell the overall impact of voice use in professions so examining this category is the most important fact.

In this study, 21% people has a normal voice after using their voice in workplace, they don't have any kind of voice problem or disturbance on their voice. So, usage didn't make any difference or make any impact. 24% people slightly have some problems. 23% people has a mild problem on their voice, people of 26 percent has moderate and the 6 percent of people has severe voice problem, so from this we can't say usage of voice on workplace makes impact or creates voice problem.

3.1.9 Daily habit

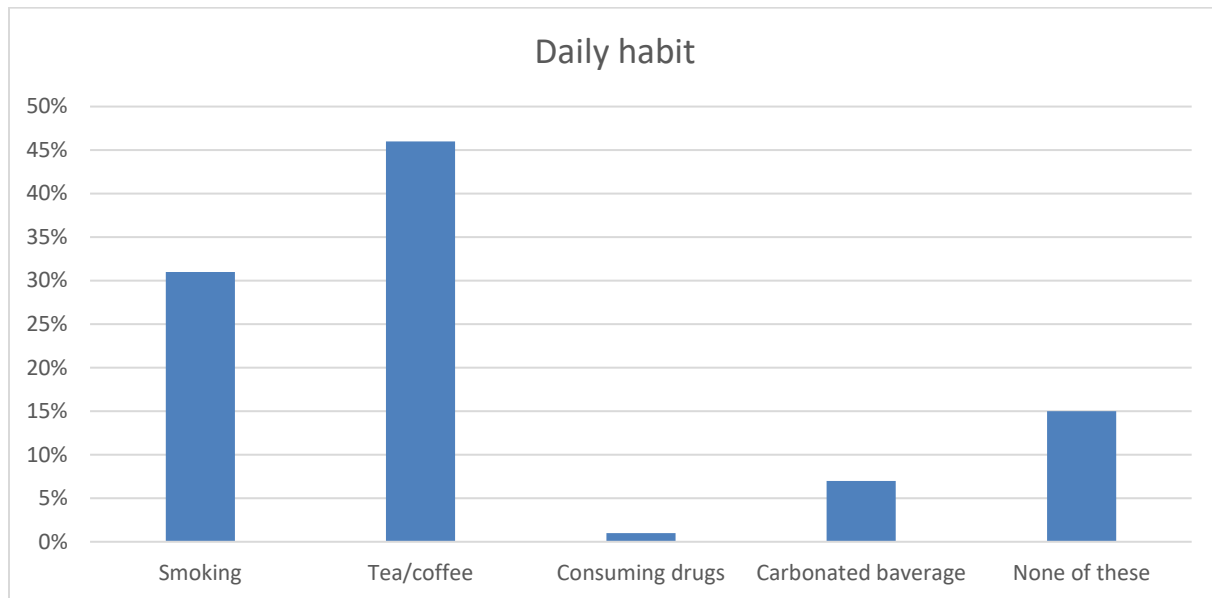


Figure 3.1.9: Daily habit

In this figure we can see the daily habits of the voice professionals, where 31% smokes, a number of people (46%) have a habit of only tea or coffee. Only 1% consumes drugs. 7% drinks carbonated beverages in a daily basis and 15% have no daily habit at all.

3.1.10 Type of voice used

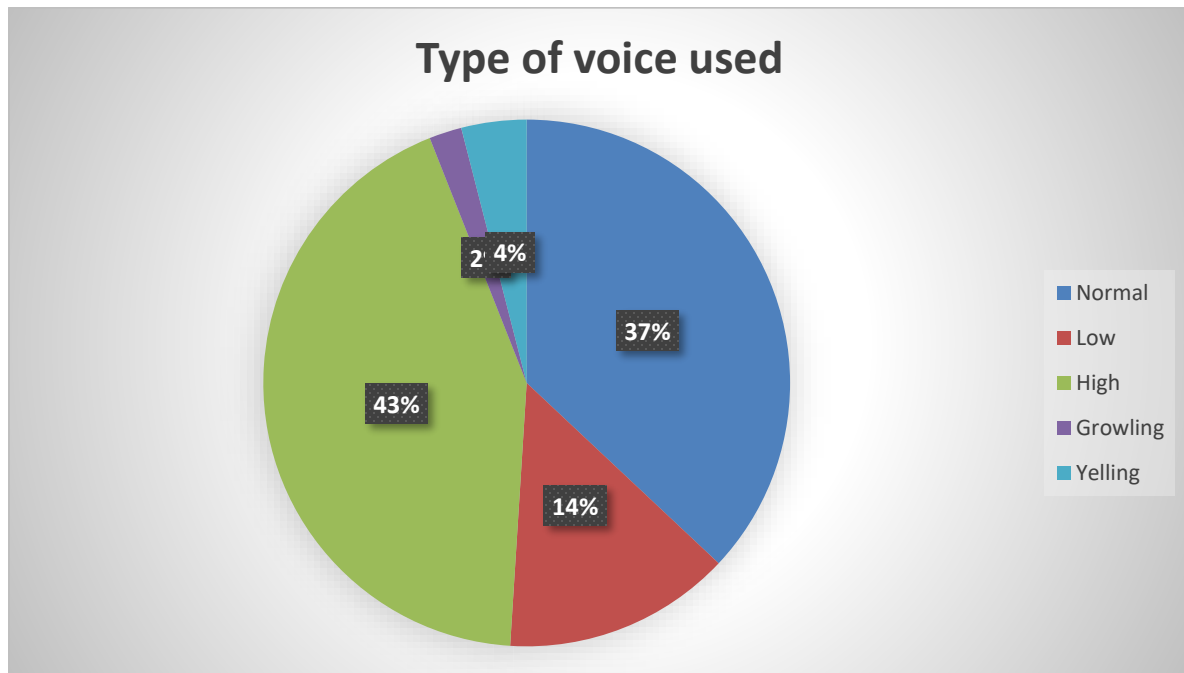


Figure 3.1.10: Type of voice used

Type of voice people use on their workplace has a great role on checking on the impact so this area was investigated.

There are different types of voice, like, some singers use growling and some yell or shout during calling people. But in this study, only three type of voice use is seen among the voice users, professionally, these are high, low and professional.

So, in this study, 37% people use as usual professional voice, 43% use high pitch voice during work and 14% use low voice due to problems or as a precaution or something else. 2% growls and 4% yells which are minimum in percentage.

3.1.11 Negative effect on communication

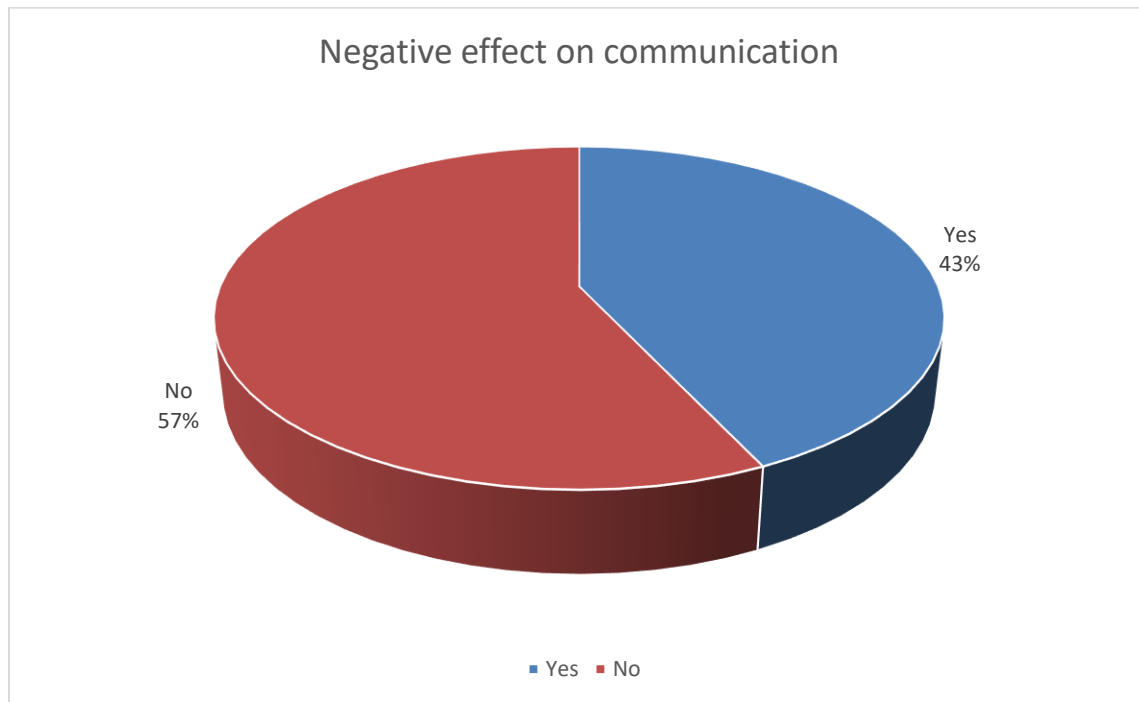


Figure 3.1.11: Negative effect on communication

In this study 43% claims that voice problem keeps a negative impact on their communication in workplace. And 57% reported that using voice doesn't make an impact in communicating.

3.1.12 Type of difficulty faced

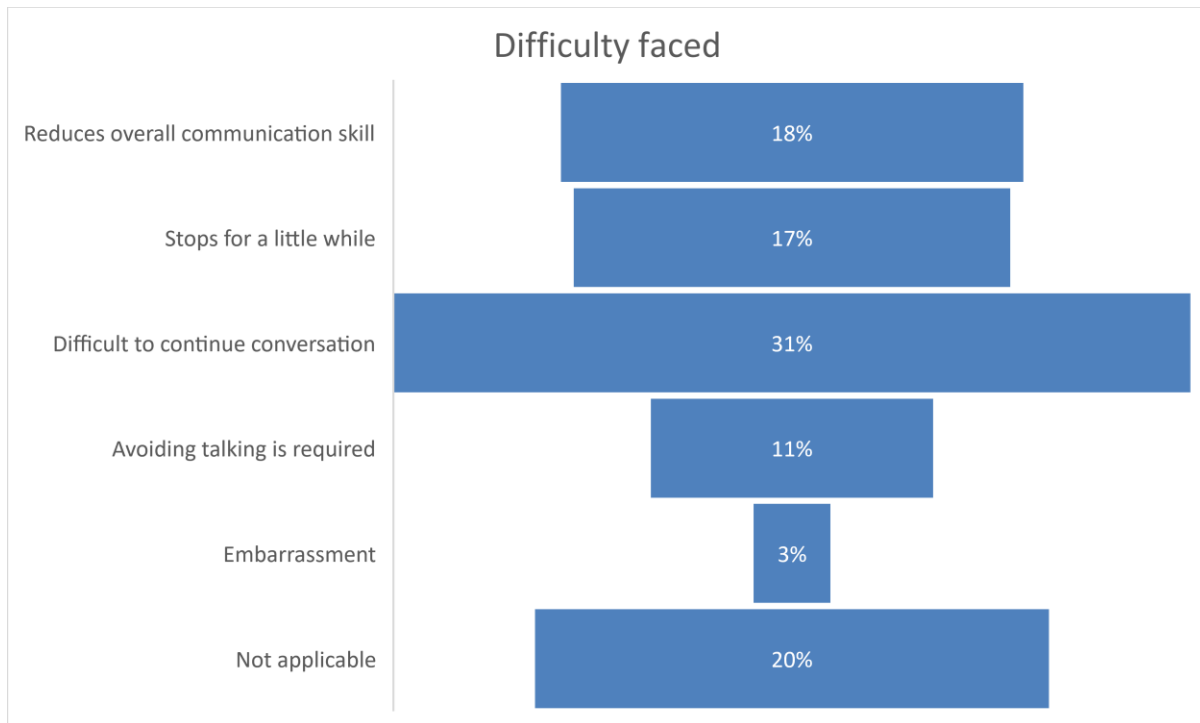


Figure 3.1.12: Type of difficulty faced

Considering to the period, duration and all, types of difficulty faced at workplace is less. Here, we can see that, overall communication of 18% people have reduced communication skill, 17% of people had to brake for a moment in the mid of talking, it's be difficult to continue conversation for 11% people needed to avoid talking, 3% people are embarrassed and has a complex for their situation and 20% claimed no difficulty has been occurred to them.

3.1.13 Effect on emotion

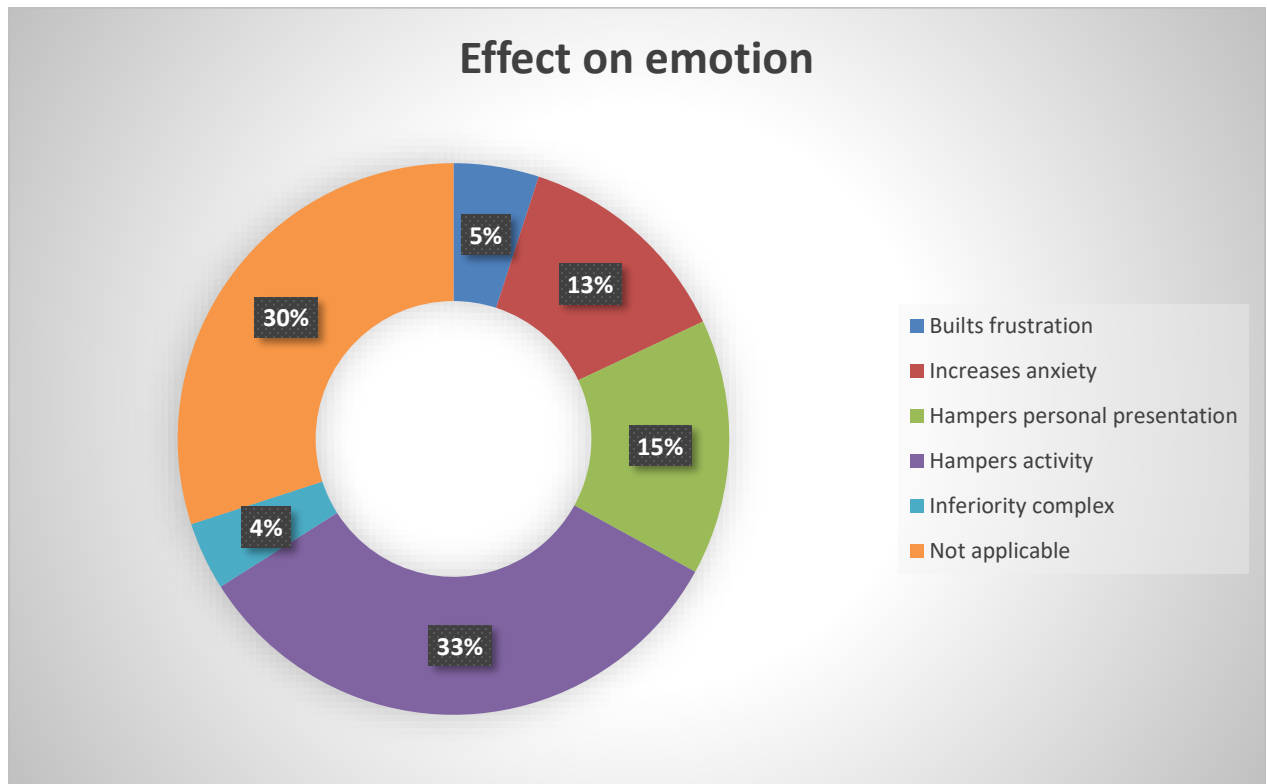


Figure 3.1.13 Effect on communication

5% people declared that voice problem at workplace builds frustration which effect on their emotion. It increases anxiety to 13% people. Hampers personal presentation for 15% people and hampers activity to 33%. 4% of them have an inferiority complex and for 30% of people, these are not applicable.

3.2 Association between variables

3.2.1 Gender and Occupation Crosstabulation

Gender * Occupation Crosstabulation

Count		Occupation							Total
		Teacher	Therapist	Call Center Operator	Bus Helper	Street hawker	Singer	Others	
Gender	Male	15	34	39	53	43	21	11	216
	Female	49	20	24	0	1	6	1	101
Total		64	54	63	53	44	27	12	317

Table 3.2.1 Gender and Occupation Crosstabulation

To know about the demographic status of the samples, we have to know their gender and occupation. Among 64 teachers 15 are male and 49 are female. There are 34 male therapists and 20 female therapists. 39 call center operators are male and 24 are female. There are 53 bus helpers and all are male as female bus helper is not usual in our country. Same goes for the street hawkers, so among 44, only one is female and the rests are male. Among 27 singers, only 6 are female and 21 are male. And among the other 12, only one is female and the rests are male.

3.2.2 Age and occupation crosstabulation

Age * Occupation Crosstabulation

Count		Occupation							Total
		Teacher	Therapist	Call Center Operator	Bus Helper	Street hawker	Singer	Others	
		0	0	2	7	0	6	3	18
Age	10-20	0	0	2	7	0	6	3	18
	21-30	10	40	55	43	7	21	3	179
	31-40	14	11	2	3	28	0	4	62
	41-50	23	2	4	0	8	0	1	38
	51-60	17	1	0	0	1	0	1	20
Total		64	54	63	53	44	27	12	317

Table 3.2.2 Age and occupation crosstabulation

For the demographic status, we need to know the age range of certain occupation as well. People who are in between the age of 10-20 are 18 in number. Among them, only two are call center operators as this is a heavy and dutiful job. But as our country is living under poverty and need livelihood to live at an early age and being a bus helper is an easily accessible employment, 7 of them are bus helpers. 6 people are singers as a hobby and 3 are from other professions. The most working age range is from 21-30, 179 in number. Among them, only 10 are teachers as teachers are mostly aged. 40 are therapists, 55 are call center operators as young generation just started their profession as freshers at this age range. And this age range is the earning age so 43 are bus helpers. 7 are street hawkers. Most of the people who want to become musician professionally or by hobby are at this range, so 21 are singers and only 3 are from other professions. In the age range of 31-40, there are 62 people from where 14 are teachers, 11 are therapists, 2 are call center operators, 3 are bus helpers, shopkeepers are mostly from this range so 28 of them, no singer and 4 from others. As mentioned before, teachers are from higher age range, so in the age range of 41-50, among 38 people 23 are them. 2 therapists, as therapists don't stick to their profession for a higher period of time. There are 4 call center operators, 8 street hawkers and 1 other. No bus helper or singer as they leave these earlier. 51-60 is a non-working range, so there are 17 teachers, 1 therapist, 1 street hawker and 1 other. No other people from this range.

3.2.3 Association between Occupation and type of problem

Occupation * Type of problem Crosstabulation

Count		Type of problem					Total
		Normal	dry throat	voice block	throat pain	coughing tendency	
Occupation	Teacher	14	22	2	13	12	63
	Therapist	13	19	5	12	4	53
	Call center operator	9	28	7	6	13	63
	Bus helper	0	11	2	27	12	52
	Street hawker	6	25	2	9	2	44
	Singer	4	7	6	5	4	26
	Others	3	10	0	1	2	16
Total		49	122	24	73	49	317

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	74.365 ^a	24	.000
Likelihood Ratio	79.308	24	.000
Linear-by-Linear Association	.044	1	.834
N of Valid Cases	317		

a. 12 cells (34.3%) have expected count less than 5. The minimum expected count is 1.21.

Table 3.2.3 Association between Frequency of problem and Severity of problem

This chart is for finding out the characteristics of voice problem. From the chart, we get to know how many professionals have what kind of problem. There are voice professionals like teachers, call center operators, therapists, bus helpers, street hawkers, singers and others. They might have no problem at all, or else can have dry throat, voice block, throat pain, coughing tendency type of problems.

The bus helpers and street hawkers who use mostly high voices and the call center operators who use voice for long time have more problems like dry throat and throat pain.

3.2.4 Association between type of voice that is used and type of problem

Type of voice used * Type of problem Crosstabulation

Count		Type of problem					Total
		Normal	Dry throat	Voice block	Throat pain	Coughing tendency	
Type of voice used	Normal	35	44	5	12	18	114
	Low	7	16	6	9	7	45
	High	7	53	10	48	20	138
	Growling	0	3	1	0	0	4
	Yelling	0	4	1	5	4	14
	6	0	1	0	0	0	1
Total		49	121	23	74	49	316

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	58.240 ^a	20	.000
Likelihood Ratio	62.063	20	.000
Linear-by-Linear Association	18.574	1	.000
N of Valid Cases	316		

a. 15 cells (50.0%) have expected count less than 5. The minimum expected count is .07.

Table 3.2.4 Association between type of voice that is used and type of problem

This chart is for finding out the characteristics of voice problem. From the chart, we get to know what type of voice use make what type of problem. The type of voice those were used are normal, low, high, growling, yelling. And the type of problem that raised were explained earlier in the previous one. Considering the highest number, 53 persons use high voice and has dry throat and 48 has throat pain and 20 has coughing. So, using high voice can cause these types of voice problems. Using normal voice for a longer duration can also cause these problems.

The chi square value is 0.00 so we can say that there is significance of voice problem.

3.2.5 Association between type of voice that is used and severity of problem

Type of voice used * Severity of problem Crosstabulation

Count		Severity of problem					Total
		Normal	Slight	Mild	Moderate	Severe	
Type of voice used	Normal	48	23	16	22	5	114
	Low	10	18	11	5	1	45
	High	8	35	42	51	2	138
	Growling	0	1	0	3	0	4
	Yelling	0	0	1	4	9	14
	6	0	1	0	0	0	1
Total		66	78	70	85	17	316

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	176.030 ^a	20	.000
Likelihood Ratio	124.025	20	.000
Linear-by-Linear Association	55.383	1	.000
N of Valid Cases	316		

a. 16 cells (53.3%) have expected count less than 5. The minimum expected count is .05.

Table 3.2.5 Association between type of voice that is used and severity of problem

This chart is for finding out the characteristics of voice problem. From the chart, we get to know for what type of voice how severe the problem gets. The type of voice is declared. The severity can get from normal, to slight, mild, moderate or severe. Considering the highest number, 51 persons use high voice and has moderate level of voice problem, 42 has mild and 35 has slight problem. So, we see, using high voice can lead to voice problem at this level. Using Regular voice for long period of time can cause the same, just a little less.

The chi square value is 0.00 so we can say that there is significance of voice problem.

3.2.6 Association between duration of work and frequency of problem

Duration of work * Frequency Crosstabulation

Count		Frequency					Total
		Never	2-3 times	3-4 times	5-6 times	more than that	
Duration of work	4 hours	24	21	6	2	10	63
	5 hrs	18	12	8	4	3	45
	6 hrs	6	10	15	5	1	37
	7 hrs	6	22	19	12	2	61
	8 hrs or more	9	38	38	16	9	110
	7	0	1	0	0	0	1
Total		63	104	86	39	25	317

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	63.520 ^a	20	.000
Likelihood Ratio	65.568	20	.000
Linear-by-Linear Association	12.880	1	.000
N of Valid Cases	317		

a. 10 cells (33.3%) have expected count less than 5. The minimum expected count is .08.

Table 3.2.6 Association between duration of work and frequency of problem

This chart is for finding out if using voice at workplace causes voice problem. From the chart, we get to know, using voice for a certain duration of time can cause the voice problem how many times. People worked here for 4,5,6,7,8 hours respectively and some for more than 8 hrs. And the tendency of voice problem in the last 2 years are never, 2-3 times, 3-4 times, 5-6 times or more. Considering the time and frequency, people who work for longest time have more frequency of voice problem than others. People working for 8 hours can have problems from 2-4.

The chi square value is 0.00 so we can say that voice problem is highly significant among professionals.

3.2.7 Association between duration of work and severity of problem

Duration of work * Severity of problem Crosstabulation

Count		Severity of problem					Total
		Normal	Slight	Mild	Moderate	Severe	
Duration of work	4 hours	30	14	7	11	1	63
	5 hrs	18	8	12	7	0	45
	6 hrs	7	15	7	8	0	37
	7 hrs	4	15	25	16	1	61
	8 hrs or more	8	25	19	43	15	110
	7	0	1	0	0	0	1
Total		67	78	70	85	17	317

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.230 ^a	20	.000
Likelihood Ratio	98.196	20	.000
Linear-by-Linear Association	53.062	1	.000
N of Valid Cases	317		

a. 9 cells (30.0%) have expected count less than 5. The minimum expected count is .05.

Table 3.2.7 Association between duration of work and severity of problem

This chart is for finding out if using voice at workplace causes voice problem or how much impact does it make. From the chart, we get to know for how many hours of work people can have which level of voice problem. We already got to know how many hours do they work and what can the severity get into. Here again we see that working for longer time can lead to different ascending level of problem. The consecutive +1 hour makes the severity more.

The chi square value is 0.00 so we can say that voice problem is highly significant among voice professionals.

The research is about “Voice problem among persons relying on voice as a primary tool of trade in Dhaka city”. The investigator tried to explore how excessive voice use creates voice problems among professional voice users,

The purpose of this study was to find out the rate of voice disorder, frequency of symptoms and associated risk factors; also to verify findings and find out the consistency among findings. The similarity of our finding with other studies is that, professional voice users, has a high risk of adverse effects on voice.

There were 317 people from different professions participating in this study. There are voice professionals like teachers, call center operators, therapists, bus helpers, street hawkers, singers and others. They might have no problem at all, or else can have dry throat, voice block, throat pain, coughing tendency type of problems. The bus helpers and street hawkers who use mostly high voices and the call center operators who use voice for long time have more problems like dry throat and throat pain.

The type of voice those were used are normal, low, high, growling, yelling. And the type of problem that raised were explained earlier in the previous one. Considering the highest number, 53 persons use high voice and has dry throat and 48 has throat pain and 20 has coughing. So, using high voice can cause these types of voice problems. Using normal voice for a longer duration can also cause these problems.

The severity can get from normal, to slight, mild, moderate or severe. Considering the highest number, 51 persons use high voice and has moderate level of voice problem, 42 has mild and 35 has slight problem. So, we see, using high voice can lead to voice problem at this level. Using Regular voice for long period of time can cause the same, just a little less.

People worked here for 4,5,6,7,8 hours respectively and some for more than 8 hrs. And the tendency of voice problem in the last 2 years are never, 2-3 times, 3-4 times, 5-6 times or more. Considering the time and frequency, people who work for longest time have more frequency of voice problem than others. People working for 8 hours can have problems from 2-4.

We already got to know how many hours do they work and what can the severity get into. Here again we see that working for longer time can lead to different ascending level of problem. The consecutive +1 hour makes the severity more.

The chi square value is 0.00 in all the cases, so we can say that voice problem is highly significant among the voice professionals.

The professional voice users are prone to have voice problems. Professional voice users are persons earning his living or complete his degree by using his voice or any other person whose life could be affected with the loss of voice quality and endurance. Sometimes they face unwanted vocal conditions. But there are limited study regarding voice disorder, even there are some, these are on separated sectors, like only on teaching, singing, call center etc., but this one compiles all of them and makes a broad area of further research. This is helpful for making an overall treatment protocol. Frequently suffered voice problems were tired voice, weak voice effortful voice, pain in throat etc. Associated problems are slight effect on job performance.

The findings of present study suggest that it is need to run vocal training program (short term and long term) among professional voice users. This study would help to establish a collaborative management approach for voice problem. This knowledge would also be helpful for improving the referral system to speech and language therapy services in Bangladesh.

This study will be helpful for different organizations working in the voice area for including speech therapy service in their program for delivering a comprehensive treatment service. Thus, the study might create a future prospect and is a very good resource for the promotion and provision of Speech & Language Therapy profession in Bangladesh as well as it would help for improving the referral system to this therapy service in Bangladesh.

This is a relatively small undergraduate research project. The researcher always tried to consider time and other limitations. There are some limitations to conduct the study. The assessor of the study is a student, so the finding could be different if a professional would have done the assessment. Time and resource were limited which keeps a great deal of impact on the study. If adequate time and resource would have been available, then knowledge on this area could be extended. In this study participants were selected only from Dhaka city, and also not all the institutions where professional voice users can be found. Participants should have been taken from different places or as many places as possible for further study. Limited literatures are found in the context of Bangladesh. Information was collected from books and journals mostly. Some of the literatures and articles were costly and some had strict copyrights so these couldn't be used even after being relevant. The interview schedule and interviewing skills were not in depth to get deeper information from the participants, as it was first attempt for the research. Standard Bangla has been used to translate the questionnaire but sometimes the participants of limited education struggle to understand. Samples were somewhat difficult to find out and manage for interview, as one of the samples was bus helpers, and they can't provide time during their work, they become free in midnights, which is inappropriate for collecting data. It was also difficult to find out real singers, call center operators and RJs and manage them for the interview. Due to the small sample it was difficult to generalize the study.

If anyone in future wants to conduct a study regarding voice problem among the professional voice users, they can follow the below mentioned recommendation:

1. Similar study should be conducted on large number of participants in different areas of Bangladesh.
2. Further study needs to be conducted on different age groups.
3. Further study can be conducted with a wide range and large participant size.
4. Further study should be conducted on the treatment protocol of the voice problem faced.
5. Further study should have a specific intervention agenda for the persons suffering from voice problem.
6. Further study should have proper awareness and vocal hygiene training programs for the voice users.
7. For the development and provision of Speech and Language Therapy and for the development of public health, this type of study must be conducted in other professions too, like advocates, police, army, personnel etc.
8. Additional study is required to confirm the reliability of the study and also to find out the factors affecting voice.

The investigator tried to explore how excessive voice use creates voice problems among professional voice users,

The purpose of this study was to find out the rate of voice disorder, frequency of symptoms and associated risk factors; also to verify findings and find out the consistency among findings. The similarity of our finding with other studies is that, professional voice users, has a high risk of adverse effects on voice. The result of the present study shows (1) Relation between perceived voice problem and years of occupation, type of voice use, alcohol, and caffeine and cigarette consumption. The associated problems with job performance were taking leaves, how voice problem effects on communicational ability, colleagues' behavior, and effect on emotional state. (2) Most occurring symptoms among them are harshness, vocal fatigue, pain in throat, constant throat dryness, throat clearing; and less frequent symptoms are breathy voice, sore throat and loss of voice. (3) Most of the voice users are middle aged and they work for 50 hours per week on an average. Some of them have daily habits like smoking and consuming carbonated beverages which may create acid reflux, although in this study no relationship was found among them with voice disorder.

Awareness is one of the important ways to prevent and/or reduce the occurrence disease or disorders and also important job for SLTs. With this study result we can get the idea about the need of awareness as it would also help for improving collaborative treatment approach for voice problem. Different NGOs who are working with the promotion of health of young population conduct different types of awareness programs so this study will add an extra level to these programs.

The investigator hopes that this finding will help the policy makers to take necessary steps to reduce the vocal risk of the voice users. Also, through this study SLT profession will be benefited in both promotionally and provisionally.

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Annexure- 4
Consent Form (English)

The investigator Tazkia Tahsin is a 4th year student of B. Sc. in Speech and Language Therapy in Bangladesh Health Profession Institute (BHPI). This study is a part of course curriculum. In this study participant has clearly been informed the purpose of the study as to understand how much voice problem occurs due to excessive use of voice used by persons relying on voice as a primary tool of trade in Dhaka city. In this study I am

.....,

a participant or sample and I have been clearly informed about the purpose of the study. I am willingly participating in this study. I will have the right to withdraw in taking part any time at any stage of the study and I am not bounded to answer to anyone to get me out of the study at any time. This study will not cause any benefit or impact on participant work at present and future.

I am informed that, investigator will keep all information confidential and personal identity such as participant's name & address will not be published anywhere of the study. The research will be available to answer any study related question to the participant. I have been informed about the above- mentioned information and I agree to participate willingly with giving my consent.

Signature of the study Participant: Date:

Signature of the Researcher: Date

Annexure- 1(A)

Questionnaire (English)

1. Name:
2. Age:
3. Contact no.:
4. What is your profession?
(a) Teacher (b) Doctor (c) Call center operator (d) Bus helper (e) Street hawker
(f) Singer (g) Other kind of voice user (Please mention your profession)
5. How many years are you in this profession?
(a) 1 year (b) 2 years (c) 3 years (d) 4 years (e) more than 5 years
6. How many hours do you use your voice every day in your workplace?
(a) 4hrs (b) 5hrs (c) 6hrs (d) 7hrs (e) 8hrs or more
7. Did you experience any voice problem in the time period of your job experience?
(a) Never (b) Suddenly (c) Sometimes (d) Almost always (e) Always
8. How many times you experienced voice problem in the past couple of years?
(a) Never faced (b) At least once or twice (c) 3-4 times (d) 5-6 times (e) More than that
9. What kind of problem do you face over your voice?
(a) No problem faced (b) Dry throat (c) Breathy voice or gurgling voice (d) Pain in the throat (e) Throat clearing
10. Please rate the severity of the problem among these.
(a) Never faced or normal (b) Slight (c) Mild (d) Moderate (e) Severe
11. Do you think that use of excessive voice is the main cause of your voice problem?
(a) Strongly disagree (b) Disagree (c) Somewhat agree (d) Agree (e) Strongly agree
12. What other factors do you think affects your voice?
(a) Smoking (b) Alcoholic beverages (c) Drinking too hot (d) Drinking too cold
(e) Using voice too loudly (f) None of the above
13. What steps do you take to manage your voice problem primarily?

(a) Clear throat (b) Drink water (c) Gurgle (d) Drink hot beverages (e) Don't do anything

14. Does your voice vary time to time?

(a) Never (b) Varies throughout the day (c) Varies after a certain time during a week or month (d) Varies continuously (e) Don't notice much

15. Do you have any daily habit?

(a) Smoking (b) Drinking tea or coffee (c) Consuming Alcohol (d) Consuming any other drug (e) Carbonated beverages (f) None of the above

16. Approximately how much water do you drink per day?

(a) Less than 5 glasses (b) 5-6 glasses (c) 7-8 glasses (d) 9-10 glasses (e) more than 10 glasses

17. What kind of voice do you use while working?

(a) Professional and normal (b) Low (c) High (d) Growling (e) Yelling

18. Have your voice problem ever affected your communication ability in your workplace?

1. Yes

2. No

19. Which category best describes your voice problem?

(a) Hoarseness (b) Vocal fatigue (c) Pain in the throat (d) Running out of breath (e) Strained voice (f) Constant throat dryness (g) Frequent throat clearing or coughing (h) Sign of sore throat (i) Bitter or acid taste (j) Losing voice for some time while talking (k) Not applicable

20. What kinds of Problem does it make you face?

(a) Reduce overall communication ability (b) Make you halt for a while (c) Can't continue any further if occurs such problem (d) Needs to avoid talking (e) Feeling shame about this (f) Not applicable

21. Does your voice problem affect your emotions?

1. Yes

2. No

22. Indicate how does it affect your emotion?
- (a) Build frustration (b) Increase anxiety (c) Alter personal representation (d) Lacking in performance (e) Embarrassment leads to inferiority complex (f) Not applicable
23. What do/would you think about managing the problems if you feel any in your profession?
- (a) Think about changing Profession (b) Reduce shouting or other vocal activities affecting voice (c) Reduce talking much or taking phone calls (d) Reduce singing if you have a habit (e) Reduce working hour (f) Not applicable
24. Have you consulted a doctor for your current voice problem?
1. Yes
- Please specify the diagnosis, if any
2. No
25. For your current voice problem, have you received any of the following?
- (a) Medications (mention names, if any) (b) Voice therapy (what type of therapy) (c) Surgery (what type of) (d) Others (e) No treatment
26. Did you find any change after taking services?
1. Yes, what kind of
2. No
3. Not applicable.

সংযুক্তি-১ (খ)

সম্মতি পত্র

এই গবেষণা স্পীচ অ্যান্ড ল্যাঙ্গুয়েজ থেরাপি বিভাগের অধ্যয়নের একটি অংশ , এর গবেষকের নাম তাজকিয়া তাহসিন, বাংলাদেশ হেলথ প্রফেশন্স ইন্সটিটিউটের বি. এস. সি. ইন স্পীচ অ্যান্ড ল্যাঙ্গুয়েজ বিভাগের চতুর্থ বর্ষে অধ্যয়নরত একজন ছাত্রী এবং তার গবেষণার বিষয়, “ঢাকায় জীবিকার কাজে নিয়মিত কন্ঠ ব্যবহারকারীদের মধ্যে কন্ঠজনিত সমস্যার প্রবণতা”।

এই গবেষণায় আমি _____ একজন অংশগ্রহণকারী এবং আমি এই গবেষণার উদ্দেশ্য পরিষ্কারভাবে জানতে পেরেছি। আমি যেকোনো সময় এবং গবেষণার যেকোনো পর্যায়ে আমার অংশগ্রহণ প্রত্যাহার করতে পারি। এজন্য আমি কারো কাছে জবাবদিহি করতে বাধ্য নই। সাক্ষাতের সকল তথ্য যেগুলো গবেষণার কাজে ব্যবহৃত হবে, সেগুলো সম্পূর্ণভাবে গোপন থাকবে। শুধুমাত্র গবেষকের তথ্যসমূহে প্রবেশাধিকার পাবে। কোন প্রকার নাম প্রকাশ হবে না।

আমি গবেষণার পদ্ধতি এবং জটিলতা অথবা সাফল্যের ব্যপারে বা গবেষণার তত্ত্বাবধায়কের সহিত আলোচনা করতে পারব।

আমি উপর্যুক্ত সকল তথ্য সম্পর্কে জানি এবং আমি এই গবেষণায় অংশগ্রহণে সম্মতি জ্ঞাপন করছি।

অংশগ্রহণকারীর সাক্ষর/টিপসই _____ তারিখ _____

গবেষকের সাক্ষর _____ তারিখ _____।

সংযুক্তি-১ (থ)
প্রশ্নাবলী (বাংলা)

১। নাম:

২। বয়স:

৩। যোগাযোগের নাম্বার:

৪। আপনার পেশা কোনটি?

- (ক) শিক্ষক (খ) ডাক্তার (গ) কল সেন্টার অপারেটর (ঘ) বাস হেল্পার
(ঙ) স্ট্রিট হকার (চ) গায়ক (ছ) অন্যান্য

৫। আপনি কত বছর ধরে এ পেশায় কাজ করছেন?

- (ক) ১ বছর (খ) ২ বছর (গ) ৩ বছর (ঘ) ৪ বছর (ঙ) ৫
বছর বা তার বেশি

৬। কাজ করার সময় আপনি কত ঘন্টা আপনার কন্ঠ ব্যবহার করেন?

- (ক) ৪ ঘন্টা (খ) ৫ ঘন্টা (গ) ৬ ঘন্টা (ঘ) ৭ ঘন্টা (ঙ) ৮
ঘন্টা বা তার বেশি

৭। আপনি কাজের মধ্যবর্তী সময়ে কোন ধরনের কন্ঠজনিত সমস্যা অনুভব করে
থাকেন?

- (ক) কখনো না (খ) হঠাৎ হঠাৎ (গ) মাঝে মাঝে (ঘ) প্রায়ই (ঙ)
সবসময়েই

৮। গত দু বছরে আপনি কতবার কন্ঠজনিত অসুবিধা অনুভব করেছেন?

- (ক) সমস্যা হয় নি (খ) অন্তত এক বা দু'বার (গ) ৩-৪ বার (ঘ)
৫-৬ বার (ঙ) তার চেয়ে বেশি

৯। আপনি কঠে কি ধরনের সমস্যার সম্মুখীন হন?

(ক) সমস্যা নেই (খ) গলার শুষ্কতা (গ) শ্বাসরুদ্ধকর কঠ (ঘ) গলা ব্যাথা (ঙ) কেশে গলা পরিষ্কার করার প্রবণতা

১০। নিচের মাত্রাগুলো থেকে আপনার সমস্যার তীব্রতা নির্ধারণ করুন।

(ক) সাধারণ (খ) খুবই সামান্য (গ) সামান্য (ঘ) মাঝারি (ঙ) তীব্র

১১। আপনি কি মনে করেন কঠের মাত্রাতিরিক্ত ব্যবহারই আপনার কঠজনিত সমস্যার মূল কারণ?

(ক) একেবারেই অসম্মত (খ) অসম্মত (গ) কিছুটা সম্মত (ঘ) সম্মত (ঙ) পুরোপুরি সম্মত

১২। আর কোন কোনগুলোকে আপনার কারণ বলে মনে হয়?

(ক) ধূমপান (খ) মদ্যপ পানীয় (গ) অতিরিক্ত গরম পান (ঘ) অতিরিক্ত ঠাণ্ডা পান (ঙ) কঠের জোর ব্যবহার (চ) কোনটি নয়

১৩। প্রাথমিকভাবে কঠের সমস্যা নিয়ন্ত্রণে আপনি কী করে থাকেন?

(ক) গলা পরিষ্কার (খ) পানি পান (গ) গড়গড়া করা (ঘ) গরম পানীয় পান করা (ঙ) কোনটি না

১৪। আপনার কি কঠের তারতম্য হয়?

(ক) সাধারণত হয় না (খ) দিনের সর্বাংশে পরিবর্তন হয় (গ) একটিসপ্তাহবামাসেরনির্দিষ্টসময়পরপরিবর্তিতহয় (ঘ) ক্রমাগতপরিবর্তিতহয় (ঙ) খেয়াল করা হয় না

১৫। আপনার কোন নিত্যদিনের অভ্যাস রয়েছে?

(ক) ধূমপান (খ) চা/কফি পান (গ) মদ্যপ পানীয় পান (ঘ) অন্য কোন নেশাজাতীয় দ্রব্য সেবন (ঙ) কার্বনেটেড পানীয় (চ) কোনটি নয় (৪৭)

১৬। আপনি গড়পড়তা কতটুকু পানি দৈনিক পান করেন?

- (ক) ৫ গ্লাসের কম (খ) ৫-৬ গ্লাস (গ) ৭-৮ গ্লাস (ঘ) ৯-১০ গ্লাস
(ঙ) তার বেশি

১৭। কাজের ক্ষেত্রে আপনি কী ধরনের কন্ঠ ব্যবহার করে থাকেন?

- (ক) সাধারণ পেশাদারী (খ) নিচু (গ) উচ্চ (ঘ) গজরানো (ঙ)

চিৎকার করা

১৮। আপনার কন্ঠজনিত সমস্যা কি কর্মক্ষেত্রে যোগাযোগের ক্ষমতার ওপর কোন নেতিবাচক প্রভাব ফেলে?

১) হ্যাঁ

২) না

১৯। কোন বিভাগ আপনার কন্ঠ সমস্যার সেরা বর্ণনা করে?

- (ক) কর্কশতা (খ) কন্ঠের ক্লান্তি (গ) গলা ব্যাথা (ঘ) কথা বলতে
বলতে শ্বাস ফুরিয়ে যাওয়া (ঙ) ভাবলেশহীন কন্ঠ (চ) গলা শুষ্কতা (ছ)
ক্রমাগত কেশে গলা পরিষ্কার করা (জ) গলাভাঙ্গা (ঝ) তিতা বা অম্ল স্বাদ
(ঞ) কথা বলার মাঝে থেই হারিয়ে ফেলা (ট) প্রযোজ্য নয়

২০। এগুলো আপনাকে কী ধরনের সমস্যার সম্মুখীন করায়?

- (ক) সামগ্রিক যোগাযোগের ক্ষমতা কমায় (খ) কথা বলার মাঝে মুহূর্তের জন্য
থামিয়ে দেয় (গ) এধরনের সমস্যায় কথা চালিয়ে যাওয়া কঠিন হয়ে পড়ে
(ঘ) কথা বলা এড়ানোর প্রয়োজন হয়ে পড়ে (ঙ) এই ব্যপারে লজ্জাবোধ
হওয়া (চ) প্রযোজ্য নয়

২১। আপনার কন্ঠের সমস্যা কি আপনার আবেগকে প্রভাবিত করে?

১) হ্যাঁ

২) না

২২। এটি কিভাবে আপনার আবেগকে প্রভাবিত করে?

(ক) হতাশা তৈরি করে (খ) উদ্বেগ বৃদ্ধি করে (গ) ব্যক্তিগত উপস্থাপনা পরিবর্তন করে (ঘ) কর্মকাণ্ড ব্যহত করে (ঙ) বিরত এবং হীনমন্য করে (চ) প্রযোজ্য নয়

২৩। আপনার পেশায় কোনও সমস্যা অনুভব করলে সমস্যাগুলি পরিচালনা করার ক্ষেত্রে আপনি কী করবেন?

(ক) পেশা পরিবর্তনের চিন্তা (খ) কন্ঠস্বর প্রভাবিত করে এমন শব্দ বা অন্যান্য কন্ঠ্য কার্যক্রম হ্রাস করা (গ) কথা বলা এবং ফোনকল গ্রহন থেকে বিরতি (ঘ) গান গাওয়ার অভ্যাস থাকলে তা কমিয়ে দেয়া (ঙ) কাজের সময় কমিয়ে দেয়া (চ) প্রযোজ্য নয়

২৪। আপনার কন্ঠের বর্তমান সমস্যার জন্য কোন ডাক্তারের পরামর্শ গ্রহণ করেছেন?

১) হ্যাঁ

যদি কোন নির্দিষ্ট রোগনির্ণয় হয়ে থাকে তবে তা উল্লেখ করুন

২) না

২৫। আপনার কন্ঠের বর্তমান সমস্যার জন্য আপনি কি নিম্নলিখিত কোন সেবা গ্রহণ করেছেন?

(ক) ঔষধ (যদি গ্রহণ করেন, তবে নাম উল্লেখ করুন) (খ) কন্ঠের থেরাপী (কী ধরনের, উল্লেখ করুন) (গ) সার্জারি (কী ধরনের) (ঘ) অন্যান্য (ঙ) কোন সেবা নেয়া হয় নি

২৬। সেবা গ্রহণের পর কোন পরিবর্তন এসেছে কিনা?

১) হ্যাঁ

কী ধরনের?

২) না

৩) প্রযোজ্য নয়।

Annexure- 3

Permission Letter

24th January, 2019

To

The Head

Speech & Language Therapy Department,

CRP, Savar, Dhaka.

Subject: Prayer for seeking permission for data collection to conduct research project.

Madam,

With due respect I would like to draw your kind attention that I am a 4th year student of B. Sc in Speech & Language Therapy Department at Bangladesh Health Professions Institute (BHPI), the academic institute of CRP. This is a research project in partial fulfillment of the requirements for the degree of B. Sc in Speech & Language Therapy. My research title is “Voice problem among persons who rely on voice as a primary tool of trade in Dhaka city” under honorable supervisor, Nahid Parvez, Lecturer of SLT Department, BHPI.

Investigator will collect data during 28th January to 30th January period of time according to the departmental preference time. All the participant’s information will be confidential and will maintain all the rules properly.

So, I therefore hope that you would be kind enough to grant me the permission to conduct the data collection a successful study as a part of my course.

Yours obediently,

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Signature & Comments

.....

Tazkia Tahsin

4th year student, Speech & Language Therapy Department.

Email: tazkiatahsin17@gmail.com

BHPI, CRP, Savar, Dhaka.