

## Impact of Dysphonia on Quality of Life in a Treatment-Seeking Population

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### Abstract

**Purpose:** The purpose of this study is to evaluate the impact of dysphonia on quality of life in a treatment-seeking population.

**Method:** This is an observational descriptive study. Data was collected through self-designed questionnaire from 43 dysphonic patients, 17 men 26 women, from different clinical settings to evaluate the impact of dysphonia on quality of life in a treatment-seeking population.

**Results:** In this study 43 Dysphonic individuals were included from different clinical settings of Pakistan. Results showed that there was significant impact on educational, social, emotional and professional aspects of life.

**Conclusion:** The study shows that rate of dysphonia was higher in females as the predominance of females in studied group. Dysphonia decreased the QOL of dysphonic individuals specially in social and emotional aspect and professional use of voice presented worse quality of life.

**Keywords:** Quality of Life; Dysphonia; Impact; Treatment Seeking Population

### Introduction

In the past voice production was a puzzle. Many people thought voice production was from somewhere below the chin. By passing time they got aware of their voice mechanism and voice problems by their lay man knowledge.

Voice is composed by vocal bands vibration. Diaphragm, chest muscles, ribs, abdominal muscles, larynx, vocal fold, pharynx, oral and nasal cavities are the structures involve in production of voice. Voice production originate from lungs with the help of diaphragm and abdominal muscles, air pass through larynx and vocal cords when the vocal folds are adducted air moves upward and open the vocal folds. Voice mechanism that is composed of three subsystems. Air pressure system (Diaphragm, chest muscles, ribs, abdominal muscles) it provides and regulates air pressure to cause vocal folds to vibrate, vibratory system (Vocal folds and larynx) vocal folds vibrate, changing air pressure to sound waves producing "voiced sound," resonating system (Vocal tract: pharynx, oral cavity, nasal passages) it changes the "sound" into a person's recognizable voice.

Vocal tracts also have resonating chambers (oral and nasal) which give original value to the voice. Voice has three features (pitch, loudness, phonatory status) if there is any asymmetry in one of the voice characteristic it will cause voice problem.

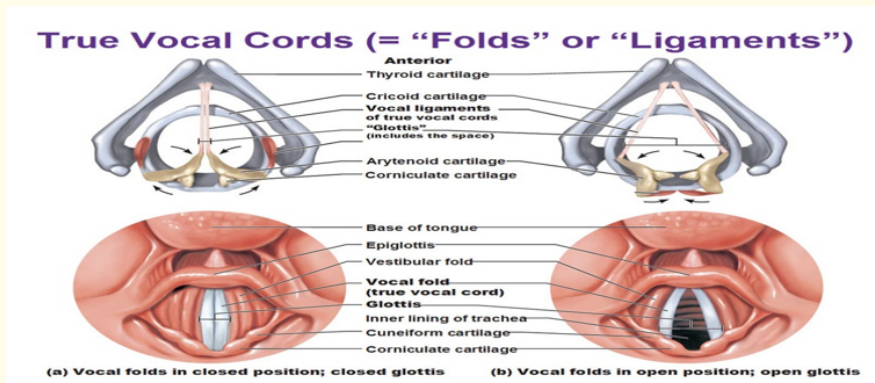


Figure 1

Dysphonia is the trouble or strain in processing sound by asymmetrical vibration of vocal fold [1].

Voice quality also varies in dysphonic patients by the severity of dysphonia. Either one has weak voice or other has deep horse voice. Causes of dysphonia includes organic (structural abnormality) functional and psychogenic. Dysphonia of organic type also divided in to structural dysphonia and neurogenic dysphonia.

Structural dysphonia is because of some trauma, inflammation or tumor. Neurogenic dysphonia is also called spasmodic dysphonia (SD) is the uncontrolled spasm in larynx while production of speech. Functional dysphonia is caused by no apparent pathology of larynx. Ratio of Dysphonia is more common in females.

Treatment intervention for dysphonia includes two methods (surgical and non-surgical) malignancy, polyp, paralysis of vocal cords involved in surgical method and in non-surgical voice therapy plan prescribed by Speech and Language Pathologist is included to reduce the severity of quality of life QOL.

Prevalence of dysphonia in female is 1.2% and male is 0.7%. Elderly people > 70 years also has high prevalence of 2.5% [2].

In a review of the research on quality of life in dysphonic individuals quality of life evaluates social, mental, educational, employment, family and marital life. Quality of life issues related to dysphonia reviewed multiple issues including “physical, spiritual, emotional and social” aspects of life, which contribute to a patient’s overall quality of life perception.

**Methods**

Forty three dysphonic patients in a treatment seeking population were selected to participate in this study. Data was collected through a self-designed questionnaire from different hospital from Lahore city. The aim of this study is to determine the impact of dysphonia on life quality to explore the impact on education, social, academic, vocational and emotional aspects of life of dysphonic patients.

**Results**

Out of 43 patients 17 (39.5%) were male and 26 (60.5%) were female. There were promising effect on social impact of life as 72% responded that their dysphonia had influenced on social life. Impact on educational life was (53.4%). 53.4% respondents were responded

that dysphonia had influenced on their occupational life. 62.7% responded that dysphonia had influenced their emotional aspect of life. only 14.7% respondent responded that dysphonia influenced their family life. Dysphonia had least impact on family and marital aspect of life.

	Frequency	Percent
Educational impact	23	53.4%
Total	43	100%

**Table 1:** Educational impact.

	Frequency	Percent
Social impact	31	53.4%
Total	43	100%

**Table 2:** Social impact.

	Frequency	Percent
Emotional impact	27	62.7%
Total	43	100%

**Table 3:** Emotional impact.

	Frequency	Percent
Occupational impact	23	53.4%
Total	43	100%

**Table 4:** Occupational impact.

	Frequency	Percent
Family life impact	06	14.7%
Total	43	100%

**Table 5:** Family life impact.

## Discussion

Results indicated that dysphonia has promising effect on quality of life. The data was collected by 43 dysphonic individuals from different Hospitals. Self-designed questionnaire has been used in investigation that is guided by perception of dysphonic individuals about their quality of life. This tool also provides more refined understanding of the dimensions of the effects of dysphonia in the patient's life and

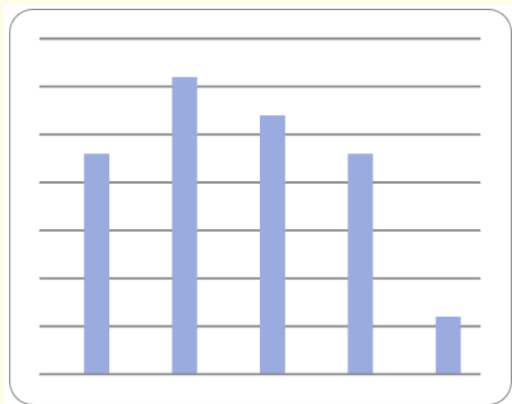


Figure 2

their psychosocial consequences and which aspect of life is more affected. In this study 43 individuals were recruited and 26 out of them were females that showed quality of life in dysphonia was higher in females in a treatment seeking population and also in adults, there were observed decreasing in quality of life. In education including relationship with teachers and classmates and their reaction regarding person’s dysphonia 19 (44.2%) agreed that dysphonia had influenced on their education and 14 (32.6%) agreed that their teachers/classmates also misreacted to their dysphonia. The greatest impact on QOL regarding social aspect of life recruited that dysphonic person had limited social circle, 26 (60.5%) respondent agreed that they had problem in making friendship. In this study, the occupation has influenced the QOL as 15 (34.9%) respondent strongly agreed that their dysphonia is because of their occupation and 19 (44.2%) strongly agreed that voice issue limits their performance. Professional voice users feel more the impact of dysphonia, because they depend on a production and specific vocal quality to their occupational survival, and have great vocal demand. So that problem harmed their career and promotions. Dysphonia also compromised the QOL in emotional aspect of life as 17 (39.5%) respondent strongly believed that their self-confidence decreased. And there was not a significant relationship between dysphonia and family related life as respondent disagreed that dysphonia had impact on their relation with family. Confirming these results, a study that verified the impact of dysphonia on quality of life. The findings on this study help to understand the possible impact of age, occupation, gender on QOL [3-17].

**Conclusion**

The purpose of this investigation was to determine impact of dysphonia on quality of life. For this purpose questionnaire was distributed among 43 dysphonic patients in a treatment seeking population. The data was collected by FMH College of Medicine and Dentistry Lahore, Combined Military Hospital Lahore, Sheikh Zayed Hospital Lahore. The result illustrated that rate of dysphonia was higher in females as the predominance of females in studied group. Dysphonia decreased the QOL of dysphonic individuals specially in social and emotional aspect and professional use of voice presented worse quality of life.

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