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ASSESSMENT OF QUALITY OF LIFE OF PATIENTS WITH PERMANENT TRACHEOSTOMY: A DESCRIPTIVE STUDY

Nursing

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ABSTRACT

The patients with permanent tracheostomy can have a long-lasting impact on their Quality of Life (QOL) affecting their physical, psychological, social, spiritual, sexual and financial domains of life. Goal of the current study is to assess the Quality of Life of patients with permanent tracheostomy. A descriptive design was used in the study. Total 100 samples were taken by total enumeration sampling. Structured interview schedule on QOL was used for data collection. Result shows that overall QOL was rated good by (6%), average by (72%) and poor by 22%. In the present among all the domains psychological, social, sexual and financial were most affected followed by a physical and spiritual domain.

KEYWORDS

Tracheostomy, Quality of Life, Domains

INTRODUCTION

The Respiratory system is one of the vital systems of our body. Its primary purpose is the exchange of gases. The patients who are unable to maintain their own ventilation, and the patients with respiratory disorders may need artificial assistance in the form of tracheostomy.1-2 Tracheostomy is a surgical opening in the neck into the trachea (windpipe), which allows air to go in and out of the lungs. The opening in the neck is called a stoma.3According to Gilyoma (2011),tracheostomy was one of the life-saving procedures in the surgical management of airway.[4]

In the United States, 64,000 tracheostomies were placed till 1996.The average number of tracheostomies performed annually in the United States now was > 100,000.5 In the state of North Carolina, the incidence of tracheostomy for prolonged mechanical ventilation was increased in all age groups from 8.3 to 24.2/100,000.[6]

It has been reported that the patients with tracheostomy face many problems like in respiration, nutrition, communication, changes in sense of smell, perceptions of physical appearance, psychological problems, etc. All these problems may influence the QOL of the patients at different dimensions of life. Tracheostomy has a negative impact on Quality of Life of patients.[7]

Hashmi et al has reported that after tracheostomy new circumstances appear in the life of the patients like an unpleasant change in their appearance, limitations, stress, low self-esteem, difficulty in communication with others, isolation, etc. These circumstances may result in a negative impact or adverse effect on Quality of Life of the patients. [8-9]

The patients with tracheostomy had diminished QOL due to the body image perception and also score low in their life satisfaction.10 so this study is an attempt to assess the Quality of Life of patients with respect to physical, psychological, social, sexual, spiritual and financial domains. The findings can be used for the evaluation of problems experienced by individuals with tracheostomy influencing their Quality of Life at different dimensions of Life. Specialized counseling program can be planned for these patients to improve and enhance their Quality of Life.

MATERIALS AND METHODS

A Quantitative approach with descriptive study design was used in the present study. The research was conducted in ENT OPD, PGIMER, Chandigarh. The study included outpatient who were over 18 years old and having tracheostomy tube for more than 3 months and participants with any mental illness were excluded from the study.

Total enumeration techniques was used as a sampling technique.Total 100 participants were recruited for the study. Data was collected by a structured interview schedule.

The interviewing questionnaire include socio-demographic profile, clinical profile and Quality of Life questionnaire. The questionnaire contains forty-eight (48) items. It was a five-point scale i.e. always, mostly, sometimes, rarely, never. Scoring of the Likert type scale was 1 to 5 i.e. 1 for the negative outcome, 3 for average and 5 for the good outcome. The sexual domain and spiritual domain consists of dichotomous response i.e Yes and No. Score was given 1 to the yes response and 2 to the No response. On the basis each domain further categorization was done.

Table 1: Categorization of QOL on the basis of each domains N=%/100

QOL SCALE SCORING	CATEGORIZATION OF QOL		
	POOR	AVERAGE	GOOD
Physical domain (total items =22)	22-51	52-81	81
Psychological domain (total items = 8)	08-18	19-37	37
Social domain (total items =6)	06-14	15-23	23
Spiritual domain (total items =3)	03-07	08-12	12
Overall QOL total items = 48	48-104	105-161	>161

Individual item score 1-5
Maximum attainable score = 5

For sexual and financial domain no scoring was done as the no. of items were less

ETHICAL ASPECTS

Approval of research protocol was sought from the Institute's Ethics Review Committee of PGIMER Chandigarh.

Ethical Clearance no. (INT/IEC/2018/000560).

DATA ANALYSIS

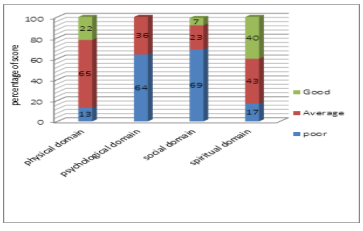
Table 1:Socio demographic profile of the study participants. N= %/ 100

Age (in years)*	
<30	12
31-60	57
>61	31
Sex	

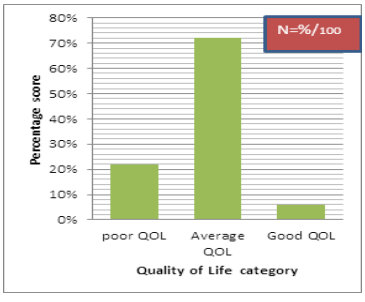
	82	
Male	18	
Female		
Religion	75	
Hindu	19	
Sikh	6	
Muslim		
Education		23
illiterate	40	
Primary school	25	
Middle school	5	
High school and Intermediate	7	
Graduate and above		11
Marital status	76	
Unmarried	3	
Married	10	
Divorced		
Widow	15	
Occupation	7	
Farmer	6	
Retired	9	
Housewife	14	
Govt employee	18	
Not working	31	
Private employee		
Others(Labourer)	73	
Residence	27	
Rural		
Urban		
Type of family	93	
Nuclear	7	
Joint		
Per capita income**		
≤5000	95	
>5000	5	

* Mean ±SD=52.1 ± 15.1, Median=56, Range = 18-80
**Median=1666, Range = 454 -16000

QOL of participants under various domain (Fig-1)



Overall Quality of Life of participants with tracheostomy (Fig-2)



RESULT

Mean score was 69.1±14.5 for the physical domain, 17.5±6.09 for the psychological domain, 13.3±5.34 for social domain, 11.2±3.40 for the spiritual domain, 4.4±2.41for the sexual domain and 4.4±2.41 for the financial domain. More than half (57%) of the participants were in the age group of 31-60years. Majority (82%) of the participants were male. Three fourth (73%) of the participants had cancer of the head and neck.

QOL of participants under various domain

Nearly one fourth (22%) of the participants were in good, more than half (65%) of the participants were in average and 13% of the participants were in poor category of the physical domain. Two third (64%) of the participants were in poor and 36% of the participants were in average category of the psychological domain. More than half (69%) of the participants were in poor, one fourth (23%) of the participants in average and only 8% of the participants were in good category of the social domain Less than half (40%) of the participants were in good, nearly half (43%) of the participants were in average and only 17% of the participants were in poor category of the spiritual domain.

Overall Quality of Life of participants with tracheostomy

Three fourth (72%) of the participants had average QOL, one fourth (22%) of the participants had poor QOL whereas only 6% of the participants experienced good QOL.

DISCUSSION

The mean age of the participants in the present study was 52.1±15.1 years (median=56). Maximum were between 31-60 years of age group.The mean age of the participants was comparable with other studies. Pal et al (2017) conducted a study in a tertiary care hospital in Punjab, India. The mean age of the patients was 46.03 years (range 1.5 to 84 years), 51% were over 45 years, 43% were middle-aged (18-45 years) and 6% patients in the pediatric age group i.e 17 years and below.11 In another study by Adedeji (2014) the age of patients ranged from 6months-77years. The median age was 34.5 years and the mean age was 35.2±27.19 years.[12]

In the present study, most (82%) of the participants were male. The findings were supported by another studies wherein the majority of the participants were male [(72% 13and (77%)]14 respectively. Two third (68%) of the participants had a problem in communication in the present study. A study done by Foster has stated that communication was the main challenge among patients with tracheostomy.[15]

The mean score of QOL in the physical domain was 69.1±14.5 as the maximum obtainable score was 110 in the present study. Gul et al in the evaluation of Quality of Life of patient with tracheostomy found the mean subscore as 64.2±22.1 for the physical functioning. [7]

As the participants required constant care of a tracheostomy tube, there is a greater requirement for psychosocial support from health-care professionals, family members, and friends. Lack of interaction and low socialization may develop psychosocial discomfort such as anxiety and hopelessness among the participants.16 In current study, more than half (58%) of the participants use to always feel anxious in public places. Majority of the participants were dependent on the family member for the care of the tracheostomy tube.

The mean score for the psychological domain was 17.5±6 as maximum obtainable score was 40.As per Gul ND et al the mean score of mental health was 51.0 ± 17.9.7In the same study by Gul et al it has been shown that 51% participants had a negative impact in their psychological domain.7 In the present study also 64% participants rated poor QOL as per psychological domain.

In the current study, more than half (57%) of the participants felt the change in their body image and perception. Gilyony D et al also concluded that change in the body image had affected their Quality of Life.[10]

Akenroye have reported that the patients with permanent tracheostomy due to its complications had a negative impact in their social life.17 In the present study 62% of the participants had limited their social interaction. The majority (83%) of the participants never felt comfortable attending the social function.

Spirituality is a major concern among Indians. Involvement in spiritual and religious activities helps in coping with the disease and its treatment. In the present study 57% (always) and 23% (most of time) of the participants had faith in God and use it as a coping technique.

Presence of tracheostomy tube can negatively impact the sexual intimacy with the partner who had previously good relationship due to presence of excessive mucus secretions in tracheostomy tube around the stoma, breathing/coughing problem during intercourse can cause embarrassment and can lead to unsatisfied sexual Life.

However in the literature sexual problem of patients with long term tracheostomy is still unexplored area, so further research need to be done to explore.

Financial problem was one of the major issues after alteration in physical health. In the present study majority of the participants had a financial problem always basically to buy equipments required for tracheostomy tube care, for transportation, to buy medicine, etc. In study conducted by Gul et al it was found that 46% patients had an adverse effect of tracheostomy on their QOL due to financial problems.[7]

CONCLUSION

The permanent tracheostomy patients face many challenges like communication, perceptions of their physical appearance, the problem in adjusting to social environment, changes in the voice, financial problems and psychological problems. Among all the domains studied using QOL questionnaire the psychological, social, sexual and financial were most affected followed by a physical and spiritual domain.

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