ORIGINAL ARTICLE

KNOWLEDGE ATTITUDE & PRACTICE REGARDING HALITOSIS AMONG PATIENTS ATTENDING THE DENTAL OPD AT A PRIVATE DENTAL HOSPITAL IN KARACHI

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ABSTRACT

Halitosis is a universal medico social problem in all communities. It refers to the unpleasant odor that originates from the mouth or elsewhere. Halitosis is multi factorial and may involve both oral and non-oral conditions. Many adults suffer from genuine halitosis occasionally, whilst an estimated 10–30% of the population suffers from this problem regularly. More than 75% of all cases have an oral origin and the most frequent are poor oral hygiene, tongue coating, periodontal disease and decreased salivary flow rate. At least 50 % of the population suffers from halitosis and around 25 % of these individuals experience such a severe problem that it affects their social life. This Descriptive Cross Sectional Study was carried out in patients attending the dental OPD at Private Dental Hospital, Gadap Town, and Karachi. The data were collected by self-structured questionnaire related to personal information regarding knowledge, attitude and practice related to halitosis and convenience sampling technique was used. The written informed consent was taken from participants. The SPSS 20 version software was used for analysis. 56.3% (214) were males and 43.7% (166) were females. Out of 380 study participants, 208 (54.7%) had the knowledge about bad breath while 172 (45.3%) subjects were unaware about it. 209 (55%) individual cleaned their teeth with toothpaste and miswak (wooden stick), 141 (37.1%) individuals did not use toothpaste / miswak and 30 (7.9%) used occasionally. Knowledge, attitude and practice about halitosis among the studied groups were not satisfactory.

Key Words: *Knowledge, Attitude, Practice, Halitosis.*

INTRODUCTION

The Halitosis or oral malodor or malodor is a universal medico social problem in all communities. It refers to the unpleasant odor that originates from the mouth or elsewhere.[1-2] These three terminologies had been used interchangeably most of the times in different literatures and this circumstance is multifactorial in etiology and may engage both oral and non-oral condition.[3]

Many adults suffer from genuine halitosis occasionally, whilst an estimated 10–30% of the population suffers from this problem regularly. There are also some patients who stubbornly, complain about halitosis when others do not perceive it (pseudo halitosis). [4]

It is a multi-factorial, which involve both oral and non-oral conditions and more than 75% of all cases have an oral origin. The most frequent causes are bad oral hygiene, tongue coating, periodontal disease and decreased salivary flow rate. The basic process in halitosis is microbial degradation of organic substrates. The etiologies of halitosis include disturbances of the upper and lower respiratory tract, disorders of the gastrointestinal tract, some systemic diseases, metabolic disorders, medicines and food ingestion. [5]

At least 50 percent of the population suffers from halitosis and around 25 per cent of these individuals experience such a severe problem that it affects their social life. Individuals may feel embarrassed in the presence of other people and may avoid socialization and intimate relationships .[3-4] Thus, halitosis is referred to as an impairment that can lead to a decrease in the quality of life. [6-7] The other possible extrinsic factors are smoking, alcohol, bad diet and socio-demographic factors. [8]

The management of these conditions is definitely

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dependent on the proper diagnosis and evaluation of their causative factors and treatment of their symptomatic defects. [9-11]

According to the National Oral Health Survey of Pakistan, majority of the people do not have access to the basic curative dental health facilities in the public and the private sectors, It is evident nowadays that halitosis is something that people in general are concerned about. This situation requires health professionals to have a considerable commitment and training in managing the referred condition. [12] The aim of this study was to find out the level of knowledge and attitude towards halitosis.

MATERIALS & METHODS

It was the descriptive cross sectional study, conducted during the period of six months from February 2017 to July 2017. All data were collected by self-structured questionnaire related to personal information regarding knowledge, attitude and practice related to halitosis. The Convenience Sampling technique was used for data collection. Patients who came to the outpatient department of Baqai Dental College formed the study group.

The sample size was calculated by confidence interval of 95 %, with error of 5 % and expected proportion of 50%. The sample size collected was 380 patients. Researcher collected the data by asking the questions in native language i.e. Urdu. Self- structured close ended questions were adopted from different sources like articles and research studies which were completed on similar study design and different questions were chosen that were related to the study design and were modified according to the target sample and to the study questionnaire.

Written informed consent was taken from the incharge of Oral Diagnosis, Baqai Dental College as well as verbal informed consent was taken from study participants.

The software used for analysis was SPSS 20 version. Frequency and percentage for all variables were computed.

RESULTS

DISCUSSION

Halitosis is a state of self-conscious distress and has a great social impact and millions of people are affected by it. It effects people of all ages, mostly during morning hours.[13] This study demonstrated halitosis among OPD patients of different age groups with different factors but most of the results have shown confinement with previous studies on halitosis. The current study focused on knowledge, attitude and practice regarding halitosis and suggests that the awareness of individual regarding oral hygiene instructions, as part of patient's oral health care which may improve patient's oral health status.

According to Riaz[14] 49.2% were aware and 50.8% were unaware about halitosis. Nevertheless in this study socio-demographic characteristics of the 380 participants showed that 56.3% were male and 43.7% female out of which 54.7 were aware and 45.3 were unaware.

A study was done by another researcher Söder B [15] who found 75% of total respondents of 12-14 years had oral malodor. But in this study 54.7% participants reported bad breath. 17.4% study participants had bad taste in their mouth and 6.1% individuals observed mouth breathing. They were aged between 17 to 65 years. Most likely explanation could be that mouth remains open at majority of times and that results in decrease salivary flow / buffering power of saliva and

TABLE 1: FREQUENCY OF SOCIO-DEMOGRAPHIC PROFILE AMONG THE STUDY PARTICIPANTS.

Variable	Frequency	Percentage (%)
Gender		
Males	214	56.3
Females	166	43.7
Total	380	100

TABLE 2: EDUCATIONAL LEVEL AMONG THE STUDY PARTICIPANTS

Education Level	Frequency	%
Non Educated	15	3.9
Primary Education	129	33.9
Secondary Education	89	23.4
Intermediates	17	4.5
Graduates	101	26.5
Post Graduates	13	3.4
Religious Education	16	4.2
Total	380	100.0

TABLE 3: OCCUPATION STATUS AMONG THE STUDY PARTICIPANTS

Occupation	Frequency	%
Students	72	18.9
Government Servants	31	8.2
Private Occupation	99	26.1
Jobless	69	18.2
House wives	109	28.7
Total	380	100.0

TABLE 4: KNOWLEDGE OF HALITOSIS AMONG THE STUDY PARTICIPANTS.

S.No.	Variable n=380		Frequency	Percentage
1	Knowledge about bad breath	Yes	208	54.7
		No	172	45.3
2	Do you smell your own breath	Yes	125	32.9
		No	198	52.1
		I don't know	57	15
3	Do you have bad taste	Yes	66	17.4
		No	226	59.5
		I don't know	88	23.2
4	Gums bleed while brushing	Yes	248	65.3
		No	59	15.5
		I don't know	73	19.2
5	Self-treatment for bad breath	Self medication	100	26.3
		Traditional medication	98	25.8
		I don't know	37	9.7
		No treatment	145	38.2
6	Brushing can prevent gum diseases	Yes	188	49.5
		No	36	9.5
		I don't know	156	41.1
7	Mouth feel dry	Yes	48	12.6
		No	156	41.1
		I don't know	176	46.3
8	History of respiratory problem	Yes	53	13.9
		No	320	84.2
		I don't know	7	1.8
9	History of GIT problem	Yes	77	20.3
		No	296	77.9
		I don't know	7	1.8

TABLE 5: ATTITUDE FOR HALITOSIS AMONG THE STUDY PARTICIPANTS

S.No.	Variable n=380		Frequency	Percentage
1	Consult doctor for halitosis problem	Yes	171	45
		No	130	34.2
		I don't know	70	20.8
2	Worried about having bad breath	Yes	17	4.47
		No	199	52.4
		I don't know	164	43.2
3	How did you know that you have bad breath	I know my self	192	50.5
		I guess from other comments	113	29.7
		I don't know	8	2.1
			67	17.6
4	Do you smoke	Yes	146	38.4
		No	234	61.6
5	Sleep with open mouth	Yes	15	3.9
		No	163	42.9
		I don't know	202	53.2

6	Mouth breather	Yes	23	6.1
		No	266	70
		I don't know	91	23.9
7	Typical diet	Onion	245	64.5
		Ginger	69	18.2
		Garlic	8	2.1
		Snacks	52	13.7
		Others	6	1.6
8	Breath worst time	Morning	179	47.1
		During day	53	13.9
		After meal	121	31.8
		Others	27	7.1

TABLE 6: PRACTICE OF HALITOSIS AMONG THE STUDY PARTICIPANTS

S.No.	Variable n=380		Frequency	Percentage
1	Clean teeth with toothpaste and miswak	Yes	209	55
		No	141	37.1
		Occasionally	30	7.9
2	Use dental floss	Yes	114	30
		No	228	60
		Occasionally	38	10
3	Use mouth wash	Yes	98	17.89
		No	200	52.63
		Occasionally	82	21.6
4	Cigarette use per day	Less than 1 pack	154	40.5
		No smoking	226	59.5
5	Times during day drink beverages	Occasionally	223	58.7
		Daily	9	2.4
		Twice	133	35
		Weekly	15	3.89

water evaporating from saliva might be a contributing factor for halitosis. Older people often have systemic problems and diseases including sinus issues, congestion that force them to breath from their mouth and thus have problem in maintaining their oral hygiene resulting in halitosis. [16]

This study showed halitosis in participants between 40-50 years age. Lee CH[17] reported sixty six participants had oral malodor due to tongue coatings. In study participants regarding history of medical problems, 20.3% replied to have Gastro-Intestinal (GI) problems and past study showed the results that 29% had GIT problems 13.9% had a history of respiratory problem, in another study done by Almas K [18]observed 29.5% had respiratory problems.

47.1% of respondents in this study had been using raw onion, 18.2% used ginger and 2.1% used garlic. In comparison in another study by Kara C[19], 35% use of onion and ginger of 20% had a habit of using garlic.[20] The onion has high concentrations of sulphur, which can pass through the lining of intestine into the bloodstream, and afterward released into the lungs and then exhaled, so they established direct correlation of onion with halitosis. [21] The intake of garlic (Allium Satium) also cause bad breath. Garlic breath odor comes from lungs instead of particles retained in the mouth.[22] Therefore this study suggests that halitosis was also caused due to raw onion and garlic.

CONCLUSION

The knowledge about the problems related to halitosis among the studied group was not satisfactory. Bleeding gums was a significant risk factor for bad

breath. Intake of onion and garlic was a contributing factor. Mouth breathing habit among elderly was another factor for halitosis.

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2 Samreen Mazhar:	Topic selection and discussion write up.
3 Mahwish Bano:	Data collection and analysis of data.
4 Asghar Ali Shigri:	Supervised the study and reviewed references.
5 Muhammad Ali Leghari:	Interpretation of Data.