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Bad Breath: Question of Concern to Oral Hygiene.

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Abstract:
Background: *Halitosis, a common reason for dental consultation raises a lot of concern among sufferers, as it negatively impacts on daily life style like communication with others, self-esteem, self-confidence, social and intimate relationship etc. There has been established association between inadequate oral hygiene practices and halitosis.*
Aim*: The objective of this study was to assess whether the concerns about halitosis influences lifestyle, attitude and practices among Vikarabad population.*
Materials and methods: *A survey has been conducted in a questionnaire format regarding halitosis, oral hygiene practices, lifestyle and attitude by selecting 100subjectsrandomly from outpatient department of Sri Sai College of Dental Surgery, Vikarabad.*
Results: *A total of 100 subjects participated in the study. The prevalence of self-perceived halitosis was 75%. Most of the people who were concerned about halitosis were ranged between 26-36 years of age. 59% increased the frequency the frequency of brushing teeth where as 68% of the subjects visited dentist after identifying halitosis. 13% of the subjects exhibited medical problems.*
Conclusion*: The population had negative attitude towards oral health and lacked knowledge regarding halitosis. Hence, the health officials need to increase their efforts in educating the society about this serious problem.*

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I. Introduction

Halitosis or oral malodor or bad breath, is an unpleasant breath that interferes with self-confidence and with people's professional and social life. There are many underlying causes for halitosis and can be caused either by extraoral or intraoral factors. Volatile sulfur compounds (VSCs), are the main substances responsible for malodor, especially hydrogen sulfide (H2S), methyl mercaptan (CH3 SH), and dimethylsulfide [(CH3) 2S] produced from protein degradation by gram-negative anaerobic bacteria.[1]The prototype of health behavior contributes to the divergence of disease affection among individuals exposed to similar environmental risk factor for a disease. One of the underlying factors that influence the pattern of health behavior is individual's concern about their health.[1]A number of methods have been used to detect the presence of halitosis either directly or indirectly. Direct tests include direct smelling of the exhaled air by judge. This technique is known as organoleptic or hedonic measurement and is considered as the most logical measurement approach.[2] Other techniques for the detection of halitosis includes sulphide monitoring, the BANA test and the use of chemical sensors. There are numerous agents which temporarily mask the malodor like mouth rinses, chewing gum, etc, that, in turn prevents the individual from reporting to the dentist for the conclusive treatment. Very rarely, this

can have serious medical implications because there are numerous medical conditions that predispose to oral malodor.[3]

Bad breath has been associated with psychiatric symptoms such as phobias, depression, considerable worry, and changes in behavior and can adversely affect self-esteem, self-confidence, and impact on social participation. It plays an important role in psychological well-being and also has social impact and generates an inferior feeling to an individual in the society.[4]

To our knowledge, there are no studies that have assessed the concern about halitosis influences lifestyle, attitude and practices among the individual in Vikarabad population. Moreover, limited information is available on the relationship of socio-demographic factors, oral hygiene habits, symptoms of periodontal disease and self-confidence in the social life of patients with halitosis Therefore, this study was conducted to assess the concern about halitosis and its influence, attitude practices in general population of Vikarabad inhabitants.

II. Materials And Methods

A cross-sectional study was conductedat Out Patient Department of Peridontics, Sri Sai College of Dental Surgery, where patients were given self-administered questionnaires in a randomly. Prior to including any participant in this study, consent was taken after explaining the objectives and methodology of the study. The inclusion criteria involved patients who are perceiving halitosis.

The questionnaire included 21 questions which were dichotomous and it was related to frequency of brushing, methods of avoiding halitosis if observed, dental appointments if required, medical health, deleterious habits, time of observation of halitosis, related to age, gender.

SR NO	QUESTIONS	YES/NO	
1	Do you ever notice bad breath	76	24
2	Did you observe by yourself?	48	52
3	Did you notice bad breath after eating or drinking?	26	74
4	Is bad breath present the whole day?	49	51
5	Do you clean your tongue?	73	27
6	Do you brush more than once?	17	83
7	Do your gums bleed while brushing?	68	32
8	Do you have any medical problem?	13	87
9	Are you diabetic?	10	90
10	Did you observe dryness of mouth??	27	73
11	Do you smoke?	26	74
12	Do you consume alcohol?	18	82
13	On observing bad breath did you visit dentist?	68	32
14	Have you increased the frequency of your brushing after consulting the dentist?	59	41
15	Do you use mouth wash to reduce bad breath?	47	53
16	Do you use chewing gums to reduce bad breath?	25	75

III. Results

Out of 100, 75% of the patients had concern about halitosis, where 68% visited dentist (Graph 1). 8% patients have increased their frequency of brushing, 45% used mouthwash and 25% used chewing gums to reduce halitosis(Graph 2). Most of the people who were concerned about halitosis ranged between 26-36 years of age. In this study, 57 were males and 43 were females. 40 males were concerned about halitosis and have visited dentist whereas 32 females were concerned about halitosis and visited dentist. 27% had experienced dry mouth.73% of the individuals have a habit of using tongue-cleaners. 59% have increased the frequency of brushing after consulting dentist. 13% have shown medical problems.

IV. Discussion

Halitosis, a common worldwide problem, is of concern, that causes embarrassment, and frustration and can lead to social isolation, and even contemplation of suicide. To the best of our knowledge, this is the first study to assess concern about halitosis and influence of lifestyle attitude in daily life towards halitosis.

The present study prevalence is 76% which is similar to that of study compared with the Jordan population, where they have obtained a prevalence of 78%.[2] There are numerous causes for halitosis such as presence of local factors, oral micro flora,etc. presence of local factors and its severity depends on clinical diagnosis by means of bleeding gums. In the present study 68% of them have complained about bleeding gums that expressed association of halitosis and local deposits and oral microflora.This percentage was higher when compared to the study conducted by Goel et al on self-perceived questionnaire study in general population wherein it showed only 15%.[8] This is because of the large sample in the present study. A study by McNamara et

al. revealed that the major cause of bad breath is oral microflora.[5]It can be considered that oral microflora can be one of the cause for halitosis.

Halitosis caused to deleterious habits may be temporary. In this study, 26% have shown smoking habit and complained about halitosis whereas 18% have complained about halitosis after consuming alcohol. A study conducted by Rosenberg et al (2007) on alcohol and BMI where he said that alcohol also plays a role in halitosis.[6]Settineri et al have conducted a study that consisted a self-reported questionnaire on halitosis and concluded that halitosis requires professional care not only by dentists, but also psychological support as it is a problem that leads to avoidance behaviors and thereby limits relationships.[7]

The present study reveals that 54% of the patients have increased their brushing frequency after visiting dentist. This concluded that still there are 41% patients who are to be educated about the oral hygiene and their practices. The participants who expressed concern about halitosis had poor oral health and exhibited poor preventive dental visit practices as exemplified by being smokers, never visited the dentist, preferred symptomatic dental visit, never received professional instruction on tooth brushing and had bleeding gums on brushing, and had gingival bleeding on brushing. This is tandem with the fact that individuals with halitosis averagely abode less importance both on their mouth and that of others, exhibit poor oral hygiene, gingival problems, and dentist relational anxiety.[7,9] The increased anxiety level from heightened concern about halitosis may ultimately leading to halitosis.[9]Nalcaci et al reported selfreported halitosis as being significantly associated with inadequate oral hygiene practice and smoking.[10] The striking association found between organoleptic halitosis scores and the bleeding index[11] and also self-reported halitosis with gingival bleeding[12,13,14] in the literature conforms to more concern about halitosis among participants with gingival bleeding on brushing in this study.

Halitosis whose main oral causes are tongue coating and periodontal diseases[15] is a complaint that often creates personal discomfort and social embarrassment.[16,17] Mechanical cleaning of teeth in the form of tooth brushing and flossing is essential mechanical means of oral hygiene that lead to reduced amount of oral bacteria and substrates and presumably reducing halitosis.[18,19] 73% of the subjects had a habit of cleaning their tongue. Still there is lack of awareness in the oral hygiene practice in the rest of the subjects that is to be taken into consideration. . Bosy et al reported that, the desperate attempts to mask oral malodor with mints and chewing gum, compulsive brushing, and repeated use of mouth rinses. [16]

V. Conclusion

Data from this study showed that concern about halitosis, triggered behavioral reaction in oral self-care practices namely tooth brushing frequency, mouthwash, and chewing gum use. The main cause of halitosis was tongue coating and poor oral hygiene. The population had less awareness about the oral hygiene and lower preventive dental visit practices among participants concerned about halitosis. Oral hygiene measures can significantly reduce malodor. There is need for improved public knowledge and awareness of halitosis by dentists in Vikarabad population. Awareness can be provided through mass media such as radio, television, newspaper and also by demonstrating oral hygiene practices on teeth models.

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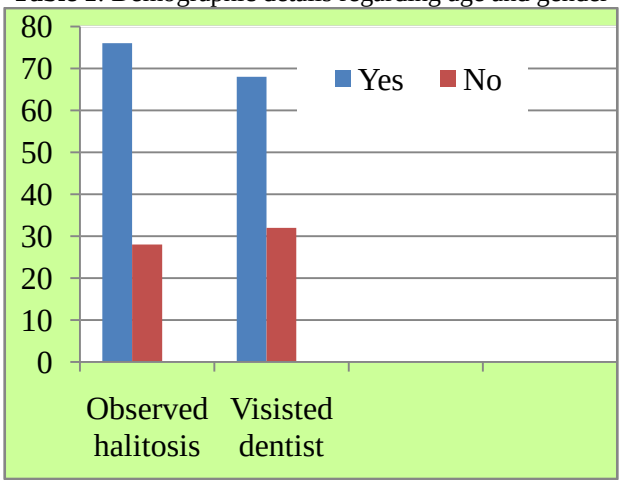
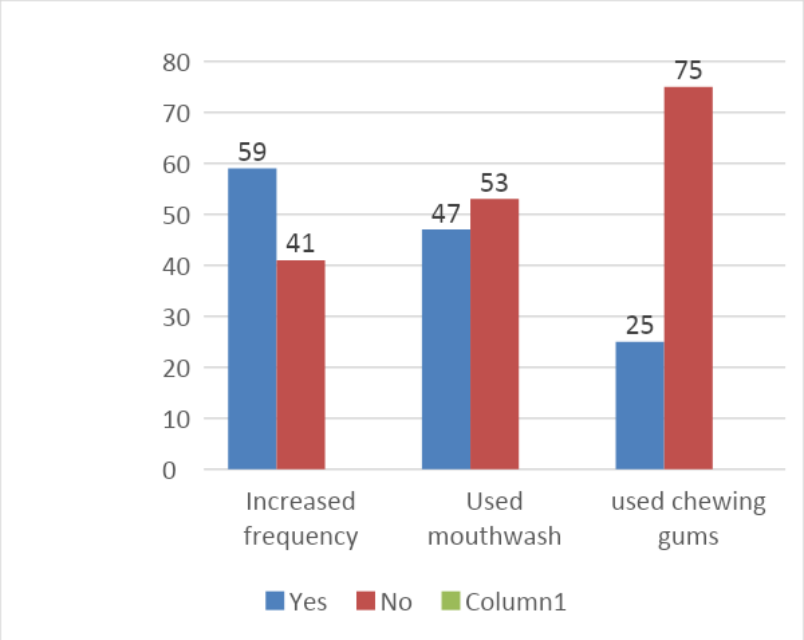
CHARACTERISTICS	CONCERN ABOUT HALITOSIS		
	YES	NO	TOTAL
AGE(YEARS)			
<25	16	8	24
26-36	35	10	45
37-47	12	3	15
>48	12	4	16
GENDER			
FEMALE	32	11	43
MALE	40	17	57

Table 1: Demographic details regarding age and gender



Graph 1: Total percentage of subjects who observed halitosis and visited dentist



Graph 2: Total percentage of subjects depicting the use of mouthwash and chewing guns