International Journal of Education and Psychological Research (IJEPR) Volume 11, Issue 2, June 2022
Print - ISSN: 2349 - 0853, e-ISSN: 2279 - 0179 Available online at www.ijepr.org
Orignal Research Article Open Access

Self- Perception and Knowledge on Halitosis (Oral Malodor) Among Nursing Students of SOA University, Bhubaneswar

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Abstract

Background: *Oral malodor or halitosis is otherwise called as bad breath. It is a common complain among all age group. Halitosis is also a social stigma among people for which peoples are feeling uneasy to disclose it. Presence of bad oral hygiene can cause bad breath and that may affect to our social, external, internal relationship and also can put impact on psychological aspect of individual's life which leads to alteration in quality of life. Usually ,people are unaware about their own breath. But when they become aware about his or her oral malodor ,they may perceive or relate the causes of it incorrectly due to presence of self stigma as well as social stigma. This Halitosis or oral malodor is a condition which is mostly present among general population throughout the world.*

Objective: *1. To evaluate the knowledge and self perception about oral malodor or halitosis among nursing students.*

2. To find out the association between knowledge and self perception with socio-demographic variable.

Material and methods: *The self structured socio-demography, knowledge and self perception questionnaires were given to 160 nursing students of Sum nursing college, Bhubaneswar, Odisha through internet or social Medias.*

Results: *The study result concluded that 86% participants were having knowledge that origin of halitosis is coated tongue and self experience about halitosis is 28%. Knowledge about local causes of halitosis is significantly associated with Gender at p value < 0.05level of significance.*

Conclusion: Awareness about halitosis is more among these Participants. As a health care provider they can also motivate or promote the general population about the therapeutic measures and proper hygienic methods of mouth, before and after taking diet and types of diet. So, that can reduce the negative attitude among general population for better dental care

Key word: *Halitosis, stigma, malodor, coated tongue, awareness*

Article History: *Submitted: 12th May, 2022, Revised: 22nd May, 2022, Accepted: 03rd June, 2022, Published: 30th June, 2022.*

I. INTRODUCTION

Halitosis is an unpleasant or offensive malodor usually originating from the mouth or oral cavity that leads to development of anxiety and embarrassing the person also affecting the individual's psychosocial communication. It interferes with individual's personal, professional and social life by affecting self confidence. Some people have pseudo halitosis, in which they have complain regarding bad breath but actually they do not have.[1]In 2018, a study result concluded that near about 25% of people affects with bad breath and maximum number of cases due to cause of lack of oral hygiene.[2] It has been seen that, globally people affect with bad breath is estimated to 1 in 4 people and most common causative factor is bad oral hygiene.

Common etiological factors of oral malodor includes coated tongue, dental caries, and decreased flow of saliva, use of certain medications, psychological factors, and pathological conditions of nose, stomach, tonsil, sinusitis, infective diseases of the lungs, esophageal diseases, systemic disorders.[3] Bad breath can also arise after eating some foods like onions, garlic, pickles, radish, spices, fishes and consumption of substances like alcohol, tobacco, betel. Such type of breath may last for several hours and it is different from other mal odor or bad breaths.[4]

In December 2020,Muhammad AR, Novita, Cindy S, et al conducted a descriptive study among 100 dental students in Indonesia and result depicted that 57% students had adequate knowledge about halitosis and 43% dental students had poor knowledge.[5] Mostly, the presence of halitosis is putting strong impact on psychological and social areas among younger people. Oral mal odor is associated with certain mental illnesses such as depression, changes in behavior , phobia, decreased self esteem , lack of self confidence and social isolation.[6]

The rate of prevalence for halitosis is between 20 percent to 50 percent. A study conducted by Sushma N, in 2011 revealed that almost 50% or more of the general population are complaining of halitosis. [7] But Another study ,carried out in Sweden among 840 men, and results shows that only 2% of the participants were complaining for presence of halitosis.[8] But, a study conducted in China by taking 2500 number of participants about halitosis and it was detected that more than 27.5% of participants were having halitosis.[9]

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As per other literature's view the prevalence rate of halitosis among children ranges from 5 to 75 %. [10] the most frequent cause of visiting dentists following dental carries is halitosis.

II. MATERIALS AND METHODS

This current study is a cross-sectional study, consist of 160 nursing students of SUM Nursing college, SOA Deemed to be university, Bhubaneswar, Odisha. A detailed survey questionnaire was introduced among nursing students which evaluated the knowledge about possible causes of halitosis, systemic origins that may develops oral malorder or halitosis and 10 questions that assessed self-perception of halitosis and treatment for it. The students were informed prior about administration of questionnaires. Freedom has been given to the participants to take part in this study as per their interest. The self structured questionnaires were administered in English language. Statistical package for social science version was used for statistical analysis of the study.

III. RESULTS

Table-1 : Questionnaires for assessment of knowledge about halitosis (oral malodor)

Variables	Frequency (f)	Percentage (%)
1.What is the origin of oral malodor?		
Gingival sulcus/periodontal pocket	39	25
Tongue coating	86	55
Stomach	18	11.25
I do not know	14	9
Other	3	2
2.What is the common cause of oral malodor?		
Not brushing teeth	107	69.5
Alcohol/Smoking	17	10.6
Dry mouth	26	17
ENT diseases	10	3
3.Which systematic disorder is areason for development of oral malodor?		
Gastrointestinal disorder	87	54.3
Respiratory disorder	33	21.4
Diabetes mellitus	8	5.2
Other	32	20.8
4.How would you manage oral malodor if you experience it?		
Meet to a dentist	100	63
Take advice from close people	8	5
Try to solve by myself	44	27.1
Take no action	1	0.6
Other	7	4.3
5.What will you do if you found bad breath from your colleague?		
Tell / Advise to him/her to go to the dentist	89	55.6
Tell / Advise to him/her to use mouth fresheners or chewing gum	65	40.6
Would not tell her/him	2	1.2
Other	4	2.5
6.How are you detecting oral malodor ?		
Self-evaluation	63	39.3
Feeling of bad taste	16	9.3
Smelling tongue scraping	51	32
I do not know	25	16
Other	5	3.1
7.Which specialist is qualified to treat oral Malodor?		
Dentist	113	70.6
ENT specialist	11	6.87
Gastroenterology specialist	12	7.5
All	24	15

Table-2: Gender and its association with knowledge regarding causes of halitosis

What is the local cause of oral malodor?	Male	Female	Chi square value	P value
Not brushing	13	94	13.2708	.004086*
Alcohol	7	10		
Dry mouth	8	18		
ENT Disease	4	6		

Table-3: Questionnaires for assessment of Self-perception towards halitosis (oral malodor)

Variables	Frequency (f)	Percentage (%)
1.Do you ever experienced oral malodor?		
Yes	45	28.12
No	115	71.87
2.Have anyone told you if you have oral malodor?		
Yes	35	21.87
No	125	78.12
3. If yes, how you responded ?		
You became embarrassed	24	17.14
You felt sad	23	14.37
Take some measure to get over your malodor	93	58.12
4.How do you get over this kind of oral malodor?		
Chewing gum	20	12.5
Mouth washes	43	30.71
Special tooth paste	13	9.28
Visiting a dentist	38	27.14
Other	46	32.85
5.Have you noticed that you are having problems in communicating due to oral malodor?		
Yes	48	30
No	112	70
6.Have you ever seek treatment for malodor?		
Yes	36	22.57
No	124	77.5
7.Are you covering your mouth during speaking due to oral malodor?		
Yes	56	35
No	104	65
8.Do you hesitate to talk to other people for mal odor?		
Yes	65	40.62
No	95	59.37
9.Have you ever been avoided by others due to your malodor?		
Yes	44	29.33
No	106	70.6
10.Do you feel uneasy for malodor when someone is nearby?		
Yes	73	45.62
No	87	54.37

Table-4 : Participants' responses for the self perceived questionnaires based on Gender

Do you ever experienced oral malodor?	Male	Female	Chi square	P value
Yes	17	28	12.3671	.000437*
No	15	100		
Have you noticed that you are having problems in communicating due to oral malodor?				
Yes	18	30	6.4081	.01136*
No	21	91		
Have you ever seek treatment for malodor?				
Yes	12	24	3.5687	.05888
No	23	101		
Do you hesitate to talk to other people for mal odor?				
Yes	19	46	2.8442	.091706
No	17	78		
Have you ever been avoided by others due to your malodor?				
Yes	13	31	1.6808	.194823
No	21	85		

IV. DISCUSSION

Dietary habits can influence occurrence of both infectious and non infectious mechanisms of halitosis.[11] some studies revealed that frequently intake of sugar diets or taking alcohol, smoking are associated with formation of halitosis.[12] This current study was conducted from 5th. may. 2021 to 15th .June. 2021 through online platform by using different social medias like what's app, mail, messenger. After data collection and analysis of the study , result depicted that in knowledge part ,majority 55% of nursing students believe that coated tongue is the origin of oral malodor, near about 70% of participants were thinking that not brushing teeth is the local cause foe halitosis, 63% students believe that people should have to go to dentist if they have history of oral mal odor and 70% students know that this problem can be treated by dentist very well other than other specialist doctors. And Gender is significantly associated with knowledge regarding causes of oral malodor with X2 value 13.2708 and 'P' value .004086 at 0.05 level of significance.

Where as in self perception analysis majority 71.87% were not experienced oral mal odor , maximum 59.37% of students hesitate to talk to other people for oral mal odor and majority 54.37 % of participants feel uneasy when someone is nearby due to oral malodor. In 25th may 2016 , a study conducted by Balachandran A, Rajaram V, Subramaniam M at Chennai, India with 285 male and 259 female students to find out the self perception of oral mal odor and habits of oral hygiene among dental students and result reported that self perceived halitosis was there among both male and females i.e 44.1% and 45.32% and statistical difference was found about use of tongue cleaner, mouth wash, bleeding gums between male and female dental students.[13] In this current study there were significant association found between self perception about experience of oral malodor and communication problem due to oral malodor with gender that is both male and female students.

V. CONCLUSION

This study indicate that nursing students are little aware about oral malodor and causes of it. But still there is need of organizing a dental camp to forward the information that which foods are causing of gum infections and producing oral malodor. Halitosis can decrease self confidence and creating negative attitude ,for this reason people are not interested to go to dentist for this problem. So, more education on dental care or oral care can create positive attitude among rural or urban community people.

VI. ETHICAL CONSIDERATIONS

Ethical clearance was obtained from higher authority of SUM Nursing college, SOA DTU, Bhubaneswar, Odisha, India. Written consent was obtained from each participants prior participation in this study.

VII. CONFLICTS OF INTEREST

None

VIII. SOURCE OF FUNDING

The study was self-funded.

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