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ASSESSMENT OF SELF-PERCEIVED ORAL MALODOUR, AWARENESS, ATTITUDES AND RELATED PRACTICES: A CROSS-SECTIONAL QUESTIONNAIRE-BASED STUDY

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Abstract: Oral malodour, commonly referred to as bad breath or halitosis, is a frequent oral health concern that can have considerable social and psychological consequences. Self-perception of oral malodour may influence an individual's confidence, social interactions, personal hygiene practices and willingness to seek professional dental care. This study aimed to assess selfperceived oral malodour, awareness regarding its causes and prevention, attitudes towards bad breath, and its perceived impact on confidence and social interactions among the study participants. A cross-sectional questionnaire-based survey included 102 participants who completed an electronically administered, team-developed 20-question questionnaire. The questionnaire covered personal characteristics, awareness, attitudes and oral-hygiene/bad-breath-related practices. Descriptive statistics were used. Percentages were calculated using the number of valid responses to each item; unanswered items were treated as missing. Of 102 participants, 71 (69.6%) were female and 47 (46.1%) were aged 21–23 years. Forty-nine participants (48.0%) reported having experienced bad breath. Among valid responses, 83/102 (81.4%) believed tongue cleaning could prevent bad breath, 84/100 (84.0%) recognised dry mouth as a possible risk factor, and 90/102 (88.2%) identified certain foods as contributors. Seventyseven of 101 respondents (76.2%) agreed or strongly agreed that they felt embarrassed when talking to others because of bad breath; 87/101 (86.1%) agreed or strongly agreed that oral malodour affects self-confidence. Eighty-two of 100 (82.0%) agreed or strongly agreed that they would seek professional help for persistent bad breath. Fifty-one of 101 respondents (50.5%) reported visiting a dentist only when p. In this sample, self-reported experience of bad breath and perceived psychosocial concerns were common. Participants generally recognised several potential contributors to oral malodour, while many reported need-based rather than regular dental visits. These findings describe self-reported perceptions and practices; they do not establish clinically diagnosed halitosis or a causal effect on quality of life.

Index Terms— *Oral malodour; halitosis; self-perception; oral hygiene; awareness; self-confidence; cross-sectional study*

I. INTRODUCTION

Oral malodour, commonly referred to as bad breath or halitosis, is an unpleasant odour that may originate from oral or extraoral sources. Oral factors associated with malodour include tongue coating, periodontal disease, dental caries, reduced salivary flow and some dietary components [1–3].

Self-perception of oral malodour may influence how individuals feel during conversations and social interactions. People who believe that they have bad breath may experience embarrassment or reduced self-confidence. However, self-perception does not necessarily confirm the presence or severity of clinically detectable malodour [4–7].

Knowledge of possible causes and preventive measures, including tongue cleaning and appropriate dental care, may support oral-health behaviour. Individuals may also use subjective methods to assess their breath, and some may seek professional care only when symptoms persist [1–3,6–10].

The present study therefore assessed self-reported experience of oral malodour, awareness of selected contributing factors, attitudes towards bad breath, and related oral-hygiene and help-seeking practices among the participants.

II. MATERIALS AND METHODS

Study design

A cross-sectional questionnaire-based study was conducted to assess self-perceived oral malodour, awareness, attitudes and related oral hygiene practices.

Study population and sample size

A total of 102 participants completed the questionnaire and were included in the study.

Data collection

Data were collected using a structured, self-administered questionnaire distributed electronically. The questionnaire consisted of 20 questions divided into four sections:

Section A – Personal information: Questions regarding age group, gender, educational qualification, medical/dental background and general health.

Section B – Awareness about bad breath: Questions assessing awareness regarding tongue cleaning, dry mouth, dietary factors and untreated dental caries as contributors to oral malodour.

Section C – Attitude towards self-perceived bad breath: Questions assessing perception of bad breath as a health problem, embarrassment, self-confidence, willingness to seek professional help and the importance of fresh breath as part of personal hygiene.

Section D – Oral hygiene and bad breath practices: Questions regarding frequency of checking breath, methods used to assess breath, dental visits, oral hygiene practices before social events and use of home remedies.

Statistical analysis

Responses were summarised using descriptive statistics. Categorical variables are presented as frequencies and percentages.

Percentages for each questionnaire item were calculated using the number of non-missing responses to that item as the denominator. Unanswered items were treated as missing and were not included in that item's percentage denominator.

III. RESULTS

Demographic characteristics

A total of 102 participants responded to the questionnaire. The largest age group was 21–23 years, comprising 47 participants (46.1%), followed by 18–20 years with 34 participants (33.3%). Twelve participants (11.8%) were aged 24–26 years, while 9 (8.8%) were above 26 years.

Females constituted the majority of the study population, with 71 participants (69.6%), while 30 (29.4%) were males and 1 participant (1.0%) selected other.

Regarding educational qualification, 82 participants (80.4%) were undergraduates, 10 (9.8%) were postgraduates, 8 (7.8%) had completed high school and 2 (2.0%) reported other qualifications.

Sixty-four participants (62.7%) reported having a medical or dental background, whereas 38 (37.3%) did not.

With regard to general health, 71 participants (69.6%) rated their health as good, 16 (15.7%) as excellent, 13 (12.7%) as average and 2 (2.0%) as poor.

Awareness regarding oral malodour

Forty-nine participants (48.0%) reported having experienced bad breath, while 38 (37.3%) reported no such experience and 15 (14.7%) were unsure.

A majority of participants, 83 (81.4%), believed that tongue cleaning could prevent bad breath. Fourteen (13.7%) were unsure and 5 (4.9%) did not believe that tongue cleaning could prevent bad breath.
Regarding xerostomia as a risk factor, 84 participants (82.4%) recognized that dry mouth could increase the risk of bad breath. Thirteen (12.7%) were unsure and 3 (2.9%) responded negatively.
Dietary factors were recognized by most participants, with 90 (88.2%) reporting that foods such as garlic, onion and spices could contribute to oral malodour.
Similarly, 86 participants (84.3%) were aware that untreated dental caries could contribute to bad breath, whereas 10 (9.8%) were unsure and 5 (4.9%) responded negatively.

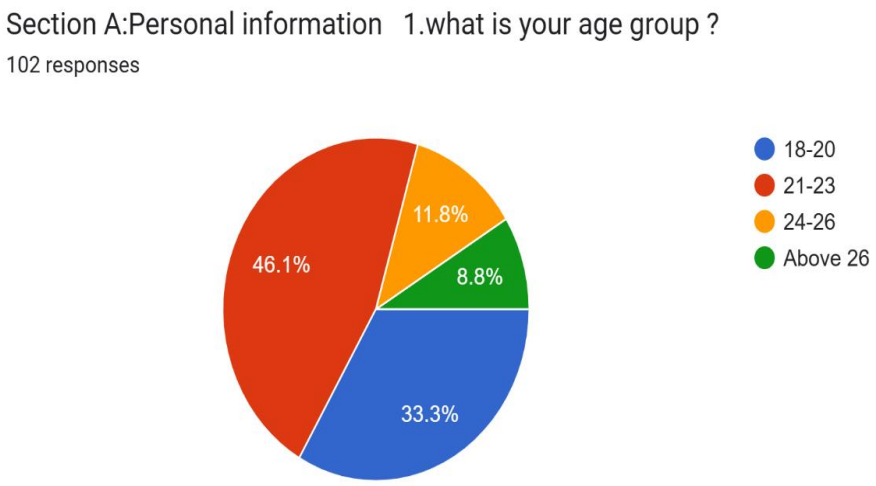
Attitudes and psychosocial impact

Forty-five participants (44.1%) agreed and 26 (25.5%) strongly agreed that bad breath should be considered a health problem. Twenty-five participants (24.5%) remained neutral.
The psychosocial effect of bad breath was evident among the participants. Forty participants (39.2%) strongly agreed and 37 (36.3%) agreed that they felt embarrassed while talking to others because of bad breath. Thus, 77 participants (75.5%) expressed agreement or strong agreement with this statement.
Regarding self-confidence, 43 participants (42.2%) strongly agreed and 44 (43.1%) agreed that oral malodour affects selfconfidence. Therefore, 87 participants (85.3%) perceived an adverse effect on self-confidence.
A total of 82 participants (80.4%) agreed or strongly agreed that they would seek professional help if they experienced persistent bad breath.
Maintaining fresh breath was considered an important part of personal hygiene by 92 participants (90.2%), with 57 (55.9%) strongly agreeing and 35 (34.3%) agreeing.

Oral hygiene and bad breath-related practices

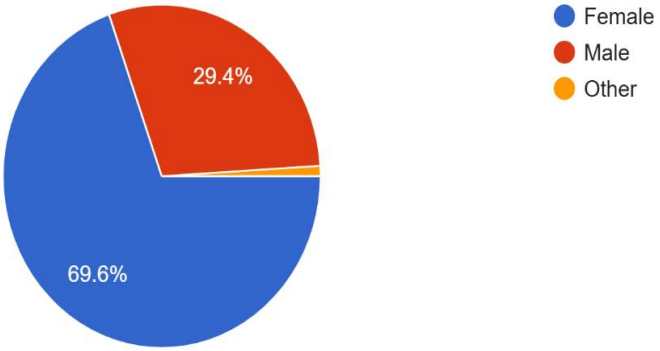
Forty-eight participants (47.1%) reported that they often checked their breath, whereas 45 (44.1%) did so rarely and 8 (7.8%) never checked their breath.
The most common method of assessing breath was smelling the breath on the hands, reported by 75 participants (73.5%). Seventeen participants (16.7%) used a mask or tissue, while 7 (6.9%) asked others to assess their breath.
Regarding dental visits, 51 participants (50.0%) reported visiting a dentist only when needed. Thirty-six (35.3%) reported visiting every six months, while 14 (13.7%) visited once a year.
Forty-eight participants (47.1%) reported increasing their oral hygiene measures before social events or meetings, while 40 (39.2%) did so rarely and 12 (11.8%) never did so.
Forty-five participants (44.1%) reported having used home remedies to manage bad breath, whereas 54 (52.9%) had not.

QUESTION-WISE RESPONSE DISTRIBUTION



2.what is your gender ?

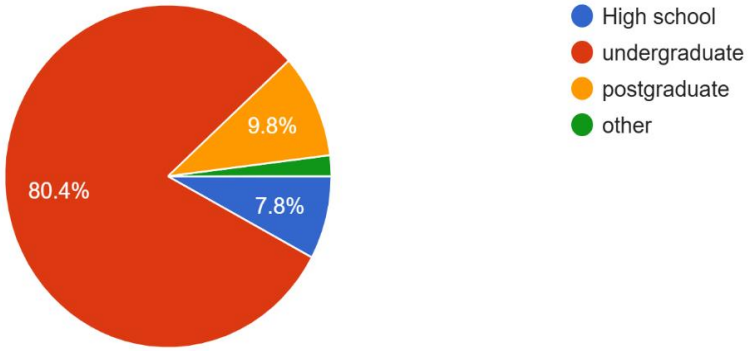
102 responses



(valid responses: 102)

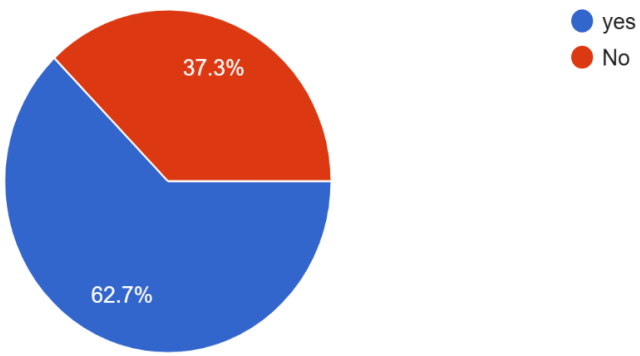
3.what is your educational qualification?

102 responses



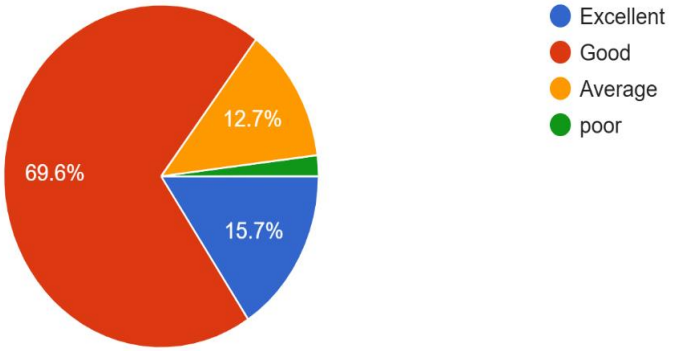
4.Are you from a medical or dental background ?

102 responses



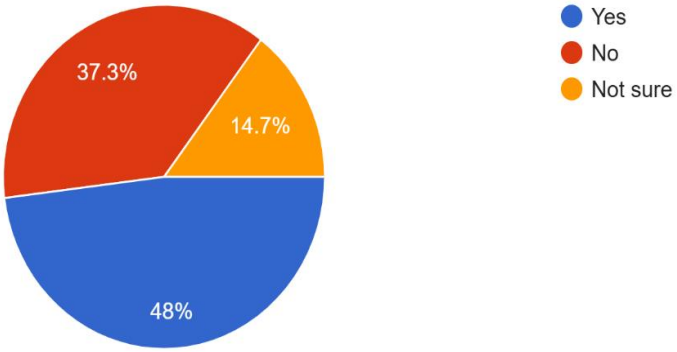
5.How would you rate your overall health?

102 responses



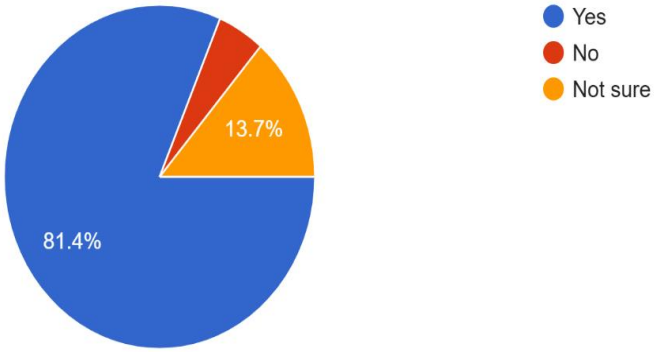
Section B:Awareness about Bad breath 6.Have you experienced bad breath?

102 responses



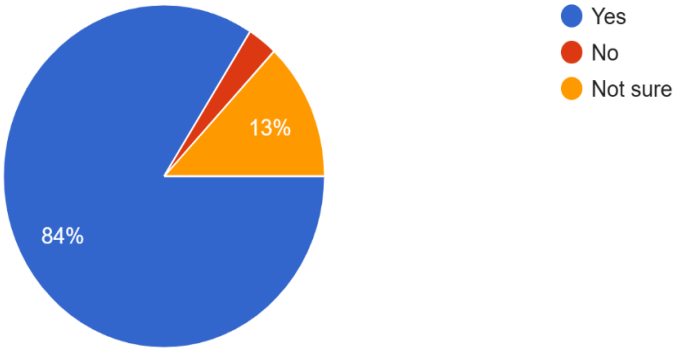
7.Do you think tongue cleaning will prevent bad breath?

102 responses



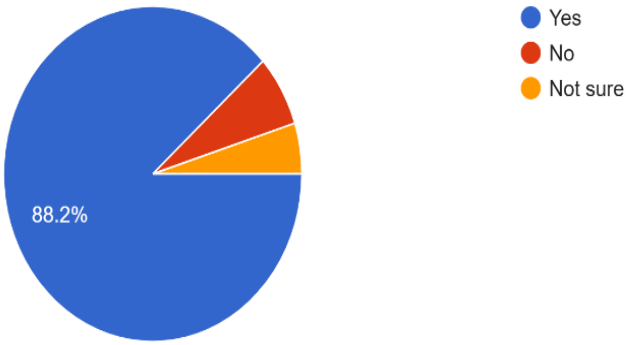
8.Do you think dry mouth can increase the risk of bad breath?

100 responses



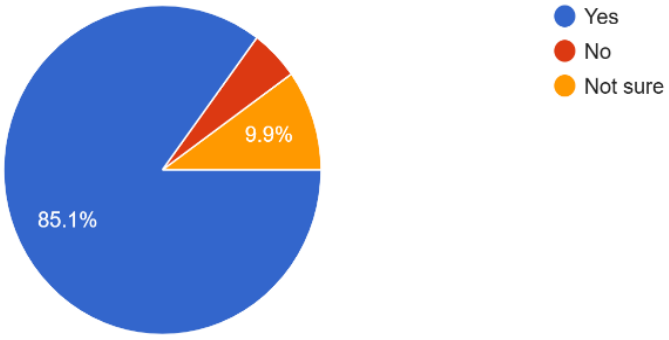
9.Do you think certain foods like garlic, onion,spices contribute to oral malodour?

102 responses



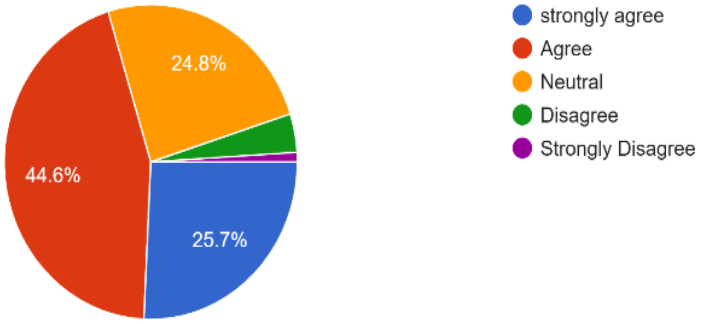
10.Are you aware that untreated dental caries can contribute to bad breath?

101 responses



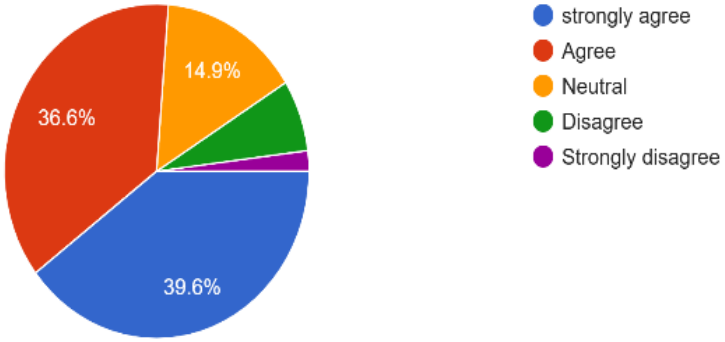
Section C: Attitude towards self perceived Bad Breath 11.Do you consider bad breath has a health problem?

101 responses



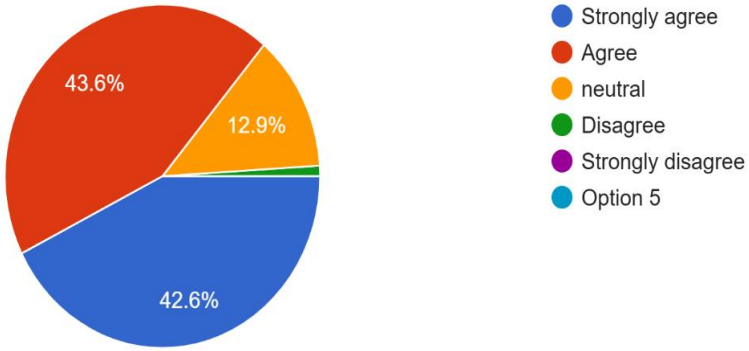
12.Do you feel embarrassed when talking to others because of bad breath?

101 responses



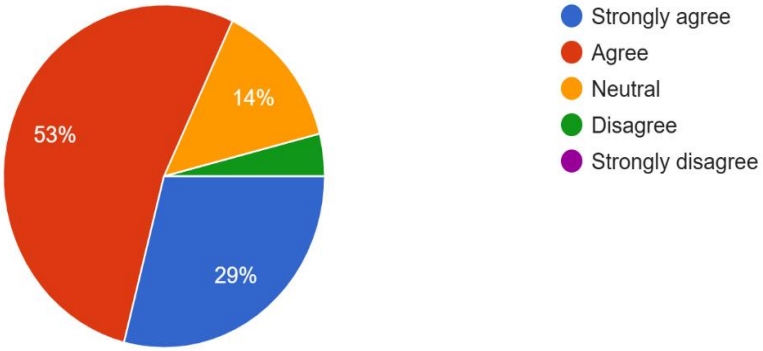
13.Do you think oral malodour affects self confidence?

101 responses



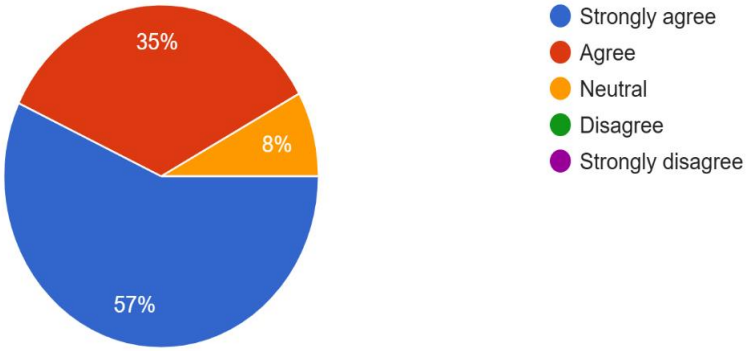
14.Would you seek professional help if you experienced persistent bad breath ?

100 responses



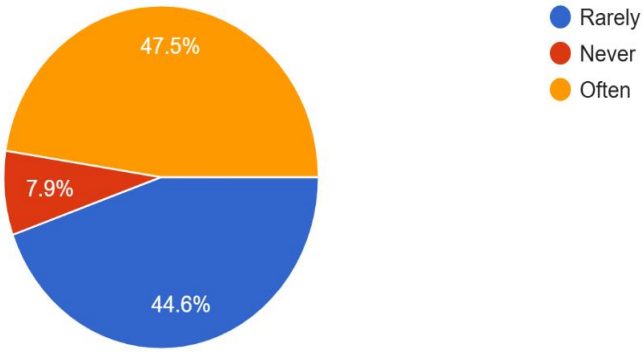
15.Do you think maintaining fresh breath is an important part of personal hygiene?

100 responses



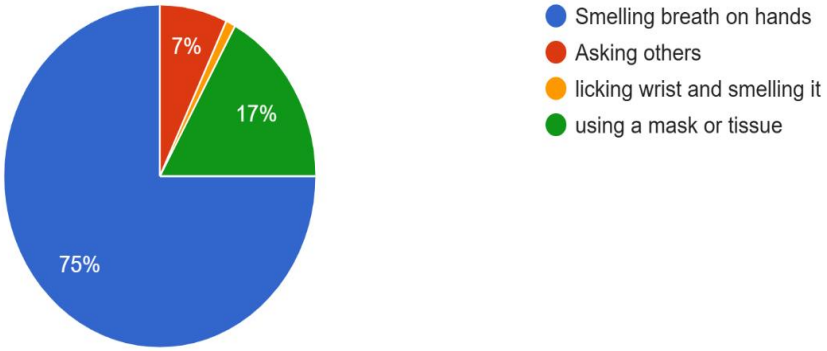
Section D:Oral Hygiene and bad breath practices 16.How often do you check your breath?

101 responses



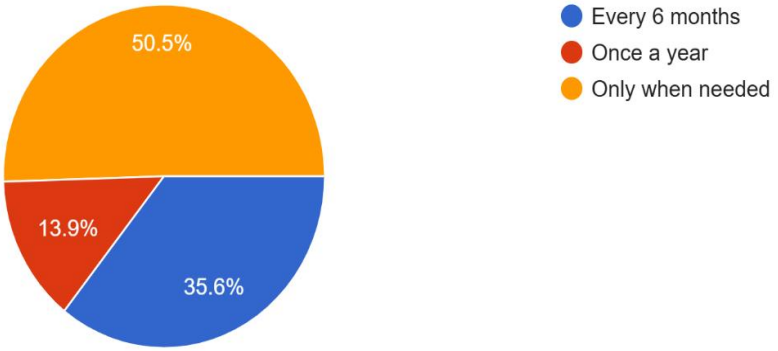
17.What methods do you use to assess your breath?

100 responses



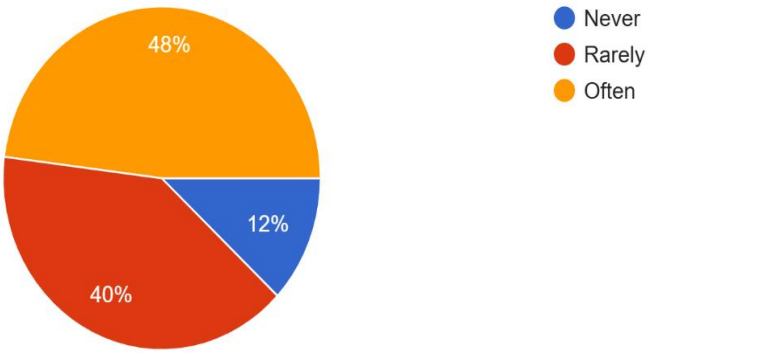
18.How often do you visit a dentist?

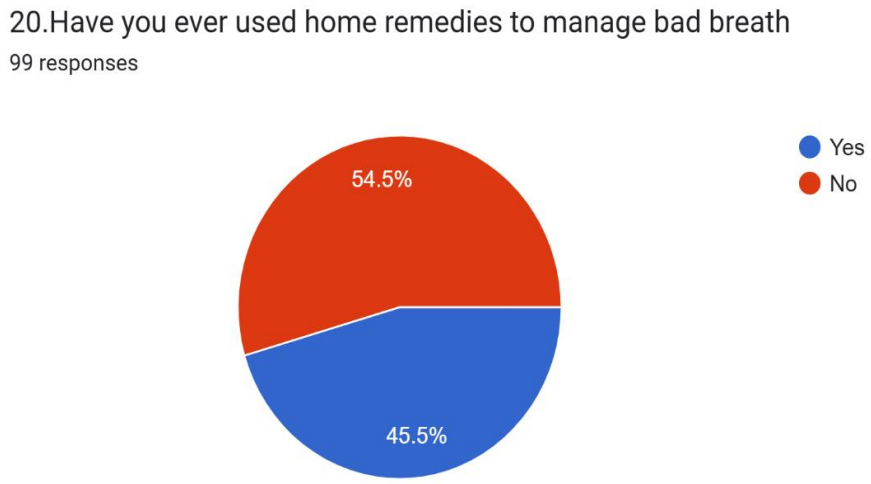
101 responses



19.Do you increase your oral hygeine measures before social events or meetings?

100 responses





IV DISCUSSION

The present study assessed self-perceived oral malodour along with awareness, attitudes and oral hygiene practices among 102 participants. Nearly half of the participants (48.0%) reported having experienced bad breath, indicating that oral malodour is a relatively common perceived oral health concern in the study population.

The study population demonstrated a relatively good level of awareness regarding several recognized contributors to oral malodour. More than 80% of participants recognized the importance of tongue cleaning and the role of dry mouth in increasing the risk of bad breath. Similarly, a high proportion of participants identified dietary factors such as garlic, onion and spices as potential contributors. Awareness that untreated dental caries may contribute to bad breath was also high [6,7].

Despite this good awareness, the study revealed an important psychosocial component. Approximately three-fourths of the participants reported embarrassment when talking to others because of bad breath, while more than 85% believed that oral malodour affects self-confidence. These findings emphasize that oral malodour is not merely an oral health concern but may also influence social interactions and psychological well-being.

A considerable proportion of participants indicated a willingness to seek professional help for persistent bad breath. However, half of the participants reported visiting a dentist only when necessary. This suggests a potential gap between awareness of oral health problems and preventive dental attendance [6–8].

The most commonly used method of assessing breath was smelling the breath on the hands. Such self-assessment methods may provide limited information regarding the actual presence and severity of oral malodour. Professional assessment is preferable when persistent oral malodour is suspected because underlying causes such as periodontal disease, tongue coating, dental caries, xerostomia or other oral conditions may require clinical evaluation.

Nearly half of the participants reported increasing their oral hygiene measures before social events or meetings, suggesting that concern about breath may influence personal hygiene behaviour. Similarly, 44.1% reported using home remedies to manage bad breath. While some individuals may find temporary relief through such measures, persistent oral malodour warrants identification and management of its underlying cause [9,10].

Overall, the findings indicate that participants had considerable awareness regarding oral malodour, but self-perceived bad breath was also associated with substantial social and psychological concerns. This highlights the importance of incorporating patient education, preventive dental care and professional assessment into the management of oral malodour.

V.CONCLUSION

Within the limitations of the present study, self-perceived oral malodour was reported by nearly half of the participants. The participants demonstrated good awareness regarding several factors associated with bad breath, including tongue coating, dry mouth, dietary factors and untreated dental caries.

However, oral malodour was perceived to have a considerable psychosocial impact, particularly on embarrassment during communication and self-confidence. Although most participants recognized the importance of fresh breath and expressed willingness to seek professional help for persistent symptoms, many reported visiting the dentist only when necessary and relied on subjective methods or home remedies to assess or manage their breath.

The findings emphasize the need for improved awareness regarding professional evaluation of persistent oral malodour and the importance of regular dental visits and appropriate oral hygiene practices. Early identification and management of underlying oral conditions may help improve both oral health and quality of life.

REFERENCES

[1] Seemann R, et al. Halitosis management by the general dental practitioner—results of an international consensus workshop. J Breath Res. 2014;8(1):017101.

[2] Seemann R, Duarte da Conceicao M, Filippi A, Greenman J, Lenton P, Nachnani S, Quirynen M, Roldán S, Schulze H, Sterer N, Tangerman A, Winkel EG, Yaegaki K, Rosenberg M. Swiss Dent J. 2014;124(11):1205–1211. doi:10.61872/sdj-2014-11-03.

[3] van den Broek AMWT, Feenstra L, de Baat C. A review of the current literature on aetiology and measurement methods of halitosis. J Dent. 2007;35(8):627–635. doi:10.1016/j.jdent.2007.04.009.

[4] Kapoor U, Sharma G, Juneja M, Nagpal A. Halitosis: Current concepts on etiology, diagnosis and management. Eur J Dent. 2016;10(2):292– 300. doi:10.4103/1305-7456.178294.

[5] De Geest S, Laleman I, Teughels W, Dekeyser C, Quirynen M. Periodontal diseases as a source of halitosis: a review of the evidence and treatment approaches for dentists and dental hygienists. Periodontol 2000. 2016;71(1):213–227. doi:10.1111/prd.12111.

[6] De Jongh A, van Wijk AJ, Horstman M, de Baat C. Self-perceived halitosis influences social interactions. BMC Oral Health. 2016;16:31.

[7] Mento C, Lombardo C, Milazzo M, Whithorn NI, Boronat-Catalá M, Almiñana-Pastor PJ, et al. Adolescence, adulthood and self-perceived halitosis: a role of psychological factors. Medicina (Kaunas). 2021;57(6):614.

[8] Emotional and Social Impact of Halitosis on Adolescents and Young Adults: A Systematic Review. PubMed PMID: 36984565.

[9] Cassiano LS, Abdullahi F, Leite FRM, López R, Peres MA, Nascimento GG. The association between halitosis and oral-health-related quality of life: a systematic review and meta-analysis. J Clin Periodontol. 2021;48(11):1458–1469.

[10] Kizhner V, Xu D, Krespi YP. A new tool measuring oral malodor quality of life. Eur Arch Otorhinolaryngol. 2011;268(8):1227–1232.

doi:10.1007/s00405-011-1496-7.

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