

Prevalence of Self Perceived/Reported Halitosis and Oral Hygiene Practices Among Resident Doctors in Tertiary Hospital in South-South, Nigeria

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ABSTRACT

Objective: The aims of this study were to assess the prevalence of self-reported halitosis, oral hygiene practices and related diseases among Resident doctors in University of Benin Teaching Hospital.

Methods: Ninety-four self-administered structured questionnaires were used to investigate self-perception of halitosis and oral hygiene practices among a group of Resident doctors in UBTH. Chi square test was used to detect significant differences between frequencies and to test correlation between self-perception of halitosis and measures of oral hygiene.

Results: 60.4% of the participants were males and 39.6% were females. Self-perception of halitosis was reported by 34.6%. Halitosis was reported with the highest frequency (79.1%) during wake-up time. Halitosis was perceived by only 6% during the hand on mouth test.

Conclusion: The prevalence of self-perceived halitosis among the volunteers in this study was within the range of other studies. Knowledge and practices of appropriate methods of oral hygiene care was lower among non-dental medical practitioners.

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INTRODUCTION

Halitosis, also known as fetor oris, oral malodour or bad breath is defined as a repulsive or foul odor that emanates from the oral cavity (Sanz et al., 2001). It is a frequent reason for dental visits and accounts for 14.5% of dental consultations in a study conducted in Nigeria (Arowojulo & Dosumu, 2004). This condition is multifactorial in etiology and may involve both oral and non-oral causes (ADA Council on Scientific Affairs, 2003). Halitosis can have a severe detrimental social and psychological impact on the affected individuals, which could affect their social interactions (Rösing & Loesche, 2011). The objective of this study was to assess the prevalence of self-reported and self-perceived halitosis as well as the oral hygiene practices among resident doctors in the University of Benin Teaching Hospital.

MATERIALS AND METHODS

A self-administered google form was designed and shared online on the social media platform of resident doctors at the University of Benin Teaching Hospital. It was distributed among resident doctors of various specialties in the University of Benin Teaching Hospital.

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A total of 63 resident doctors responded to the questionnaire on their self-perception/self-reported halitosis and their oral hygiene practices. Data was collected from the online portal. Information collected was analyzed using SPSS (Statistical Package for Social Sciences, release 17 for Windows®) version 21.

RESULTS

Out of the 94 resident doctors who received the questionnaire and reminders, 63 returned properly filled forms. Of these, 60.4% were from males and 39.6% from females. The mean age of the whole sample was 34 years with a minimum of 28 years and a maximum of 40 years. There were no significant differences with respect to age in the whole sample when subjects are grouped according to gender.

Self-perceived halitosis was reported by 34.6% of the respondents and 5.8% were unable to decide if they had halitosis. Approximately 7.5% were examined for halitosis by a dentist, while 1.9% were examined by a physician. Dentists provided treatment for 5.8% of the respondents and 1.4% were treated by physicians. None of the respondents have used traditional medicine for halitosis.

3.8% reported that bad breath has interfered with their social life or with their work during the previous month. Halitosis was reported with the highest frequency (79.1%) on waking up. In 9.3% of the respondents,

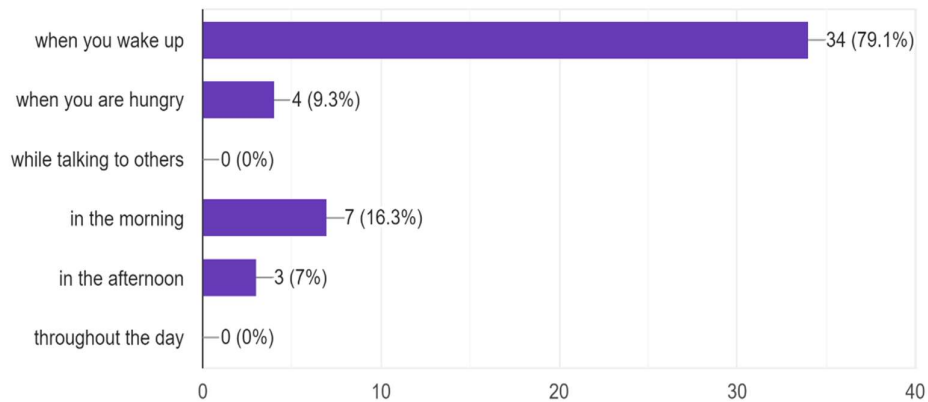
halitosis was perceived during hunger. A small percentage (<12%) of the respondents, reported halitosis during morning, afternoon or throughout the day.

In the hand on mouth test, only 6% of the respondents reported perceiving any odor while 5.5% were not sure. All respondents (100%) admitted to brushing regularly with 50% saying they brush twice daily and the other 50% brushing once daily. All the respondents used fluoridated toothpaste. About 47.2% of the respondents used dental floss, while mouthwash was used by none of them.

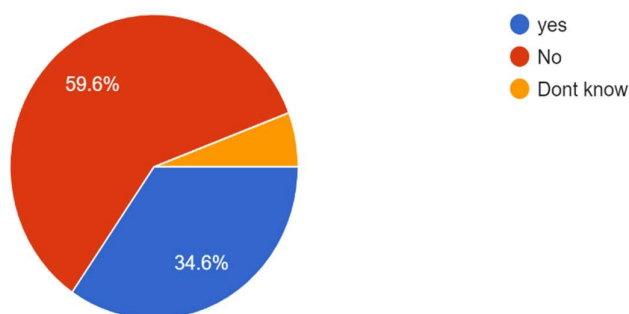
Dental caries was reported by 5.2% of the respondents. None of them had bleeding gums. 1.9% had dry mouth. Similarly, 1.9% were smokers. Drinking of tea or coffee was common with about 43.1%.

Using the Chi square test analysis, no statistically significant correlation was found between the use of tooth pick and halitosis on waking, smoking and frequency of toothbrushing, presence of dental caries and halitosis.

At what time of the day do you feel your breath is worse?



Can you smell your own breath?



DISCUSSION

Halitosis, also known as fetor oris, oral malodor, or bad breath is defined as a repulsive or foul odor that emanates from the oral cavity (Sanz et al., 2001). It is a frequent reason for dental visits and accounts for 14.5% of dental consultations in a study conducted in Nigeria (Arowojulo & Dosumu, 2004). This study assessed the self-perception of halitosis among Resident doctors as well as their knowledge about this condition.

In many research, including ours, the evaluation of malodor depends on the individual self-perception. Since this method is subjective and not standardized among participants, many authorities do not believe it to be accurate. But despite its drawbacks, this approach has been the most widely used organoleptic tool for assessing halitosis (ADA Council on Scientific Affairs, 2003).

Halitosis can have a severe detrimental social and psychological impact on the affected individuals, which could affect their social interactions (Rösing & Loesche, 2011), hence its findings are crucial. The rate of SPH among the respondents in this study was relatively low, a finding which has been reported in other similar studies (Alsadhan & Darwish, 2015; Nalcaci & Baran, 2008).

The self-perception of halitosis varies with age. Younger people have a propensity to be more watchful and concerned about their health than middle-aged people, which could be one explanation for this pattern (McCrae, 1976; Alzoubi et al., 2015). Additionally, younger people are more likely to notice bad breath and seek treatment for the issue (Bin Mubayrik et al., 2017).

In this study, 7.5% of respondents were diagnosed by dentists, and about 5.8% of these people received treatment as a result. On the other hand, only a small percentage of respondents (1.9%) consulted physicians for a diagnosis, and an even smaller percentage (1.4%) received medical care or advice from doctors. Dental surgeons are primarily responsible for diagnosing

halitosis (Eldarrat et al., 2008). The fact that only 7.5% of cases of halitosis are detected by dentists, despite the fact that the condition is well recognized, highlights their inadequate involvement in its identification and care.

The respondents in this study experienced malodor on awakening at a rate of 79.1% and at a rate of 9.3% when they were hungry or thirsty. Sleeping, being hungry, or being thirsty would undoubtedly decrease saliva production and cause bad breath (Eldarrat et al., 2008). However, in those situations halitosis is transient and diminish after consuming food or liquids and should not be considered to be a true malodor. During the study, only a smaller percentage <12% of the individuals reported odor speaking throughout the day, whether in the morning, midday, or evening.

Lack of oral hygiene, which includes brushing, using antiplaque mouthwash, and flossing, has been linked to halitosis (Pratibha et al., 2006; Al-Ansari et al., 2006). In this study, all participants admitted to brushing regularly with 50% brushing twice daily. Use of mouthwash was used by none of the subjects and almost half (47.2%) used dental floss. However, no correlation was found between oral hygiene measures and halitosis in this study as 79.1% of the respondents who practice regular brushing still experienced halitosis on waking up.

This condition is multifactorial in etiology and may involve both oral and non-oral causes (Eldarrat et al., 2008). None of the individuals had bleeding gums, while 5.2% of the subjects had dental caries. Potential causes of the poor breath include dental caries and periodontal conditions. However, neither factor in the current study indicated a connection to mouth halitosis. A known extrinsic cause of oral halitosis is smoking (Morita & Wang, 2001). Smoking, however, did not appear to be related to self-perception of halitosis in this study. 1.9% of participants reported having dry mouths. Low salivary flow, or xerostomia, increases tongue coating and potential malodor while

lessening the effect of oral washing (Koshimune et al., 2003).

Drinking of tea or coffee was quite common among the respondents in this study (43.1%). Information on how these two beverages affect mouth odor is limited, although some researches have suggested a link between drinking tea or coffee and a reduction in certain microbes in the mouth (Signoretto et al., 2006).

CONCLUSION

Although halitosis is a widespread condition, it is still seen as an embarrassing topic for discussion (Nardi et al., 2009). Our results revealed low self-perception and limited knowledge regarding halitosis. There is also an underreporting of halitosis among non-dental practitioners with a study in Switzerland showing that dentists are 3 times more likely to self-report halitosis when compared with physicians (Oppliger et al., 2014). Dentists also ranked higher in general knowledge about halitosis (Oppliger et al., 2014). Knowledge and practices of appropriate methods of oral hygiene care was also lower among non-dental medical practitioners (Oppliger et al., 2014). Therefore, it is important to strengthen the role of dentists in educating and enlightening their patients about oral malodor. Public awareness about the causes of and management of this condition should be increased.

REFERENCES

- ADA Council on Scientific Affairs (2003). Oral malodour. *J Am Dent Assoc*; 134:209-214.
- Al-Ansari JM, Boodai H, Al-Sumait N, Al-Khabbaz AK, AlShammari KF, Salako N (2006). Factors associated with self-reported halitosis in Kuwaiti patients. *J Dent*; 34:444-449.
- Alsadhan S, Darwish A (2015). Non-oral factors associated with self-reported halitosis among adults living in Riyadh, Saudi Arabia. *OHDM*; 14(1):58-61.
- Alzoubi FQ, Karasneh JA, Daamseh NM (2015). Relationship of psychological and oral health statuses with self-perceived halitosis in a Jordanian population: a cross-sectional study. *BMC Oral Health*; 15:89.
- Arowojulo MO, Dosumu EB (2004). Halitosis (Fetor oris) in patients seen at the periodontology clinic of the University College Hospital, Ibadan - a subjective evaluation. *Niger Postgrad Med J*; 11(3):221-224.
- Bin Mubayrik A, Al Hamdan R, Al Hadlaq EM, AlBagieh H, AlAhmed D, Jaddoh H, Demyati M, Abu Shryei R. Self-perception, knowledge, and awareness of halitosis among female university students. *Clin Cosmet Investig Dent*. 2017 May 26;9:45-52.
- Eldarrat A, Alkhabuli J, Malik A (2008). The prevalence of self-reported halitosis and oral hygiene practices among Libyan students and office workers. *Libyan J Med*; 3(4):170-176.
- Koshimune S, Awano S, Gohara K, Kurihara E, Ansai T, Takehara T. Low salivary flow and volatile sulfur compounds in mouth air. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2003; 96:38-41.
- McCrae RR, Bartone PT, Costa PT (1976). Age, anxiety and self-reported health. *Int J Aging Hum Dev*; 7:49-58.
- Morita M, Wang HL (2001). Relationship of sulcular sulfide level to severity of periodontal disease and BANA test. *J Periodontol*; 72: 74-78.
- Nalcaci R, Baran I. Factors associated with self-reported halitosis (SRH) and perceived taste disturbance (PTD) in elderly. *Arch Gerontol Geriat*. 2008;46(3):307-316.
- Nardi GM, Forabosco A, Forabosco G, Musciotto A, Campisi G, Grandi T (2009). Halitosis: a stomatological and psychological issue. *Minerva Stomatol*; 58(9):435-444.
- Oppliger N, Roth B, Filippi A (2014). Knowledge of halitosis among dentists and dental hygienists. *Swiss Dent J*; 124(2):133-143.
- Pratibha PK, Bhat KM, Bhat GS (2006). Oral malodor: a review of the literature. *J Dent Hyg*; 80:8.
- Rösing CK, Loesche W (2011). Halitosis: an overview of epidemiology, etiology and clinical management. *Braz Oral Res*; 25(5):466-471.
- Sanz M, Roldán S, Herrera D (2001). Fundamentals of breath malodour. *J Contemp Dent Pract*; 2(4):1-17.
- Signoretto C, Burlacchini G, Bianchi F, Cavalleri G, Canepari P (2006). Differences in microbiological composition of saliva and dental plaque in subjects with different drinking habits. *New Microbiol*; 29:293-302.