

Evaluation of the knowledge and care of oral ulceration among nursing students in a Nigerian tertiary institution.

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ABSTRACT

Background: Oral ulceration is a common complaint of patients attending outpatient clinics. Research has shown variable knowledge among nurses and nursing students for the care of oral ulcerations in developed countries; however, studies in developing countries are sparse. The objective of the study was to determine the knowledge and care of oral ulcerations among nursing students in a Nigerian tertiary institution.

Methods: A Self-administered questionnaire was used to collect data from the students who consented to participate in the study. The questionnaire consisted of four sections: demographics (age, gender), dental visits, knowledge, and care of oral ulceration. Descriptive statistics were used to present and summarize the data, while frequency and percentages were used to present the categorical data. A chi-squared test was used to identify correlations and differences. The IBM Statistical Package for the Social Sciences (SPSS) version 27.0 for Microsoft Windows was used to analyze the data.

Results: A total of 199 nursing students participated in this study, with a male-to-female ratio of 1:2 and a mean age of 22.09 ± 5.62 . A good majority (88.9%) of the students reported they had experienced oral ulcerations in the past. 44 (22.2 %) of the students with ulcers were caused by trauma. Regarding treatment, 38.9% self-medicated, 25% did nothing, and 12.9% visited a dentist for management of the oral ulcerations. Social media (17/ 47.2 %) was the most common source of information for treating oral ulceration among the participants while health professionals are the least 5(13.9%) sought.

Conclusion: The results showed poor knowledge of oral ulcers and their care, hence the need for training oral healthcare workers on the care of oral ulcerations.

Keywords: Oral Ulceration, Dental Nursing Students, Knowledge, Care

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INTRODUCTION

Oral ulceration is a common and often painful condition that affects a significant portion of the population, resulting in discomfort, difficulty in eating and speaking, and potential secondary infections. These ulcers can arise from various causes, including trauma, infections, systemic diseases, and nutritional deficiencies. Effective management of oral ulceration is crucial not only to alleviate pain and discomfort but also to prevent

complications that can impact a patient's overall well-being (Azfar et al., 2021).

Dental professionals, including dental student nurses, play a pivotal role in the early detection, diagnosis, and management of oral ulcerations. As frontline caregivers, they are often the first to encounter patients with these conditions. Their ability to correctly identify the type and cause of oral ulcers, coupled with appropriate management strategies, is essential for delivering high-quality

care. However, the level of knowledge and the practical skills of dental student nurses regarding oral ulceration can vary significantly, influenced by the quality of education, clinical exposure, and available resources (Azodo et al., 2013).

The principal causes of oral ulceration are trauma, recurrent aphthous stomatitis, microbial infections, mucocutaneous diseases, systemic disorders, squamous cell carcinoma, and drugs (Barranca-Enríquez & Romo-González, 2022).

Dental care is fundamental to general human health, and its importance to oral health cannot be overemphasized (Byahatti, 2013.). Poor dental care can cause, or exacerbate the presence of disease, both in the mouth and elsewhere in the body (Delavarian et al., 2014). Unlike other human tissues, such as skin, that continuously grow and self-rejuvenate, dental structures generally cannot repair themselves and require regular care to retain their health and vitality. Dental care can sometimes be the forgotten part of a healthy lifestyle, as its importance is often underestimated (Ghauri et al., 2020).

Oral ulceration is a common condition that can significantly affect patients' quality of life, leading to pain, discomfort, and difficulties in eating, speaking, and maintaining oral hygiene (Azfar et al., 2021). Despite its prevalence, there is often a lack of consistent knowledge and management practices among healthcare professionals, including dental student nurses (Kaimenyi & Guthua, 1994). This inconsistency can result in delayed diagnosis, improper treatment, and inadequate patient education, which may exacerbate the condition or lead to complications (Khasanah et al., 2019). Therefore, it is essential to assess the current level of knowledge and management practices of oral ulceration among dental student nurses to identify gaps and areas for improvement.

The importance of this study lies in its focus on understanding the current knowledge and management practices of oral ulceration among dental student nurses. By identifying gaps in knowledge and practice, this research aims to inform improvements in educational curricula and training programs, ultimately enhancing the competence of future dental professionals in managing this common oral health issue. As oral health is a critical component of overall health, ensuring that dental student nurses are well-prepared to influence adherence to oral ulcer care provision of comprehensive and effective healthcare.

Despite several studies (Lin et al., 2011; Mortazavi et

al., 2016; Misin et al., 2020) on knowledge of oral ulcers among dental student nurses in developed countries, the findings cannot be applicable in developing countries due to sociodemographic factors. There is a lack of information available on the awareness and knowledge of oral aphthous ulcers among dental nursing students in Nigeria. Therefore, this study aims to determine the knowledge and care of oral ulcers among dental student nurses in a Nigerian Tertiary hospital.

MATERIALS AND METHODS.

This Cross-sectional study was conducted among Dental nursing Students at the Institute of Health Sciences and Technology (IHST), University of Benin Teaching Hospital (UBTH). The population was about two hundred (200) Dental Nursing Students, using Convenience sampling. A self-administered questionnaire was used to collect data from the students who consented to participate in the study. The questionnaire had four sections, which included - Demographics (age, gender) - Dental visits, social media, parents & friends (sources of information) - Knowledge of oral ulceration, care of oral ulceration (frequency, confidence) Descriptive statistics such as means, median, and standard deviations (SD) were used to present and summarize the data. Frequency and percentages were used as the categorical data. A chi-squared test was used to identify correlations and differences with a p-value = 0.05. The IBM Statistical Package for the Social Sciences (SPSS) version 27.0 for Microsoft Windows was used to analyze the data.

RESULTS

There were 199 study participants. Males were 70 (35.2%) and females were 129 (64.8%) with a M: F ratio of 1:2. Age ranged from 17 – 45 years. The modal age was 20 years. The average age was 22.09 ± 5.62 . Among the participants, 95 (47.7%) visited the dentist, while 104 (52.3%) did not, as shown in Figure 1. About half (50.3%) of the participants brushed twice daily (Table 1). Table 2 presents the use of dental floss, mouthwash, and tongue cleaning among the participants. In this study, 69 (34.7%), 33 (16.6%), and 113 (56.8%) of the participants use the above cleaning materials, respectively. Among the participants, 163 (88.9%) reported having experienced oral ulcerations (Figure 2). The major reported causes of oral ulcerations were trauma (22.2%) and illness (19.5%). The main reported treatment option was self medication (38.9%) (Table 3). The sources of information for the treatment of oral ulceration by the participants are shown below in Figure 3. Social media 17, 47.2 %) was the most common source for the treatment of oral ulceration among the participants

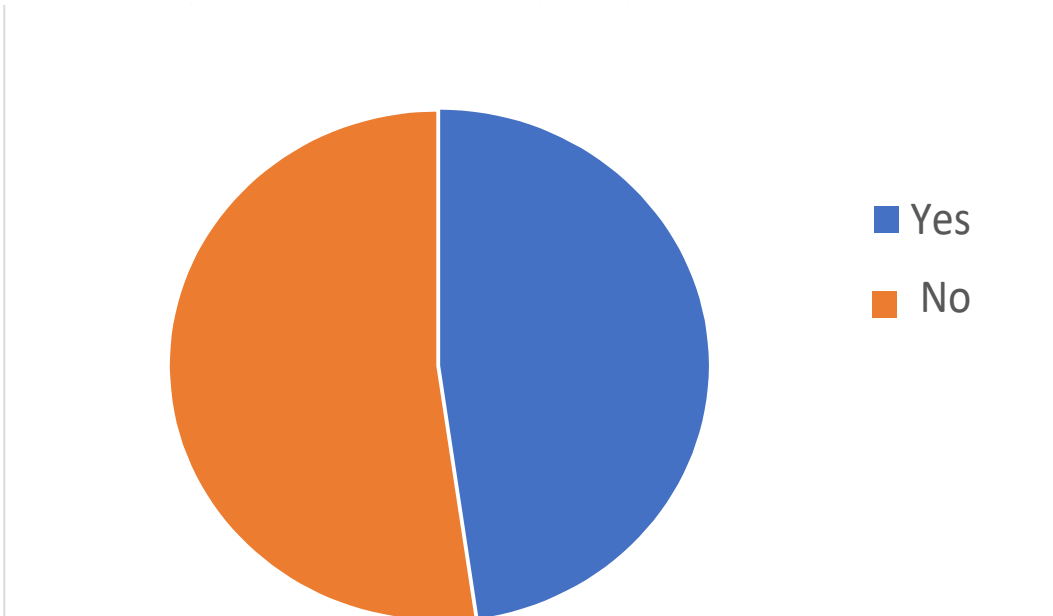


Figure 1: Proportion of the participants that have visited the Dentist

Table 1: Frequency and material used for mouth cleaning by the participants

Variable	N	Percentage (%)
Frequency of mouth cleaning		
Less than once daily	22	11.1
Once daily	65	32.6
Twice daily	100	50.3
Thrice daily	12	6.0
Materials used for mouth cleaning		
Toothbrush and toothpaste	179	89.9

Table 2: Participants' daily use of dental floss, mouthwashes, and tongue cleaning

Variable	N	Percentage (%)
Use of dental floss		
Yes	69	34.7
No	130	65.3
Use of mouthwash		
Yes	33	16.6
No	166	83.4
Tongue cleaning		
Yes	113	56.8
No	86	43.2
Total	199	100.0

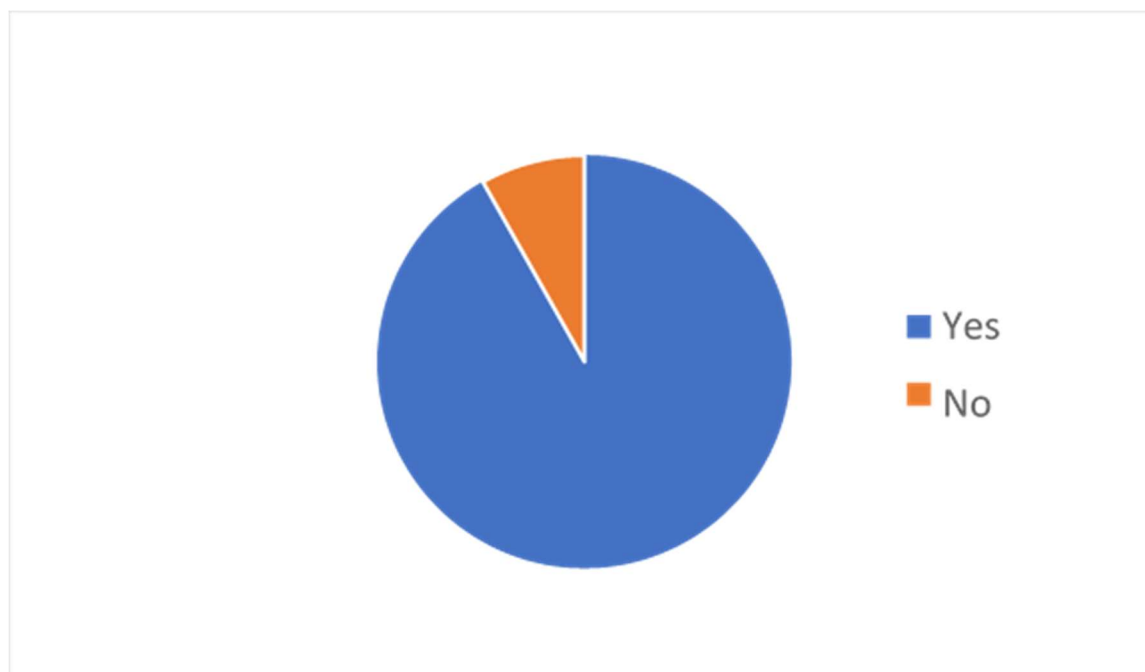


Figure 2: Experience of Oral Ulceration among participants

Table 3. Causes and treatment of oral ulceration among participants

Variable	N	Percentage (%)
Cause of Oral ulceration		
Stress	6	16.7
Illness	7	19.5
Trauma	8	22.2
Mouthwash	3	8.3
Hot food	4	11.1
No idea	8	22.2
Treatment of Oral Ulceration		
Warm Saline Mouth Bath	8	22.2
Drugs (Self-medication)	14	38.9
Did Nothing	9	25.0
Visited a Dentist	5	13.9
Total	36	100.0

DISCUSSION

Oral ulcerations are highly prevalent in developing countries (10-90%). (Lin et al., 2011; Mortazavi et al., 2016; Misin et al., 2020; Rani et al., 2024) In this study, the prevalence among dental nursing students was 18.1%. This value is consistent with findings in other developing countries, which can be attributed to a lack of knowledge about oral ulcers. Similar to another study (Taheri et al., 2020), dental student nurses have poor knowledge of oral ulcers and their care. Among the participants in this study, a greater proportion (163/88.9%) reported having experienced oral ulcerations in the past. However, in other studies,

the experience of oral ulcers was low among the dental students (Tarakji et al., 2015; Taheri et al., 2020).

Trauma was the most reported cause, 8 (22.2%), in this study, whereas stress was the most common cause in other studies (Lin et al., 2011; Mortazavi et al., 2016; Thakrar & Chaudhry, 2016; Misin et al., 2020). The incidence of oral ulceration and its cause is in agreement with prior studies (Umezudike & Ayanbadejo, 2015). Similarly, as found in this study, a great majority (73.75%) of dental undergraduate students in the study by Rani et al. (2024) took medication for their oral ulcers. However, 25% did not take medication.

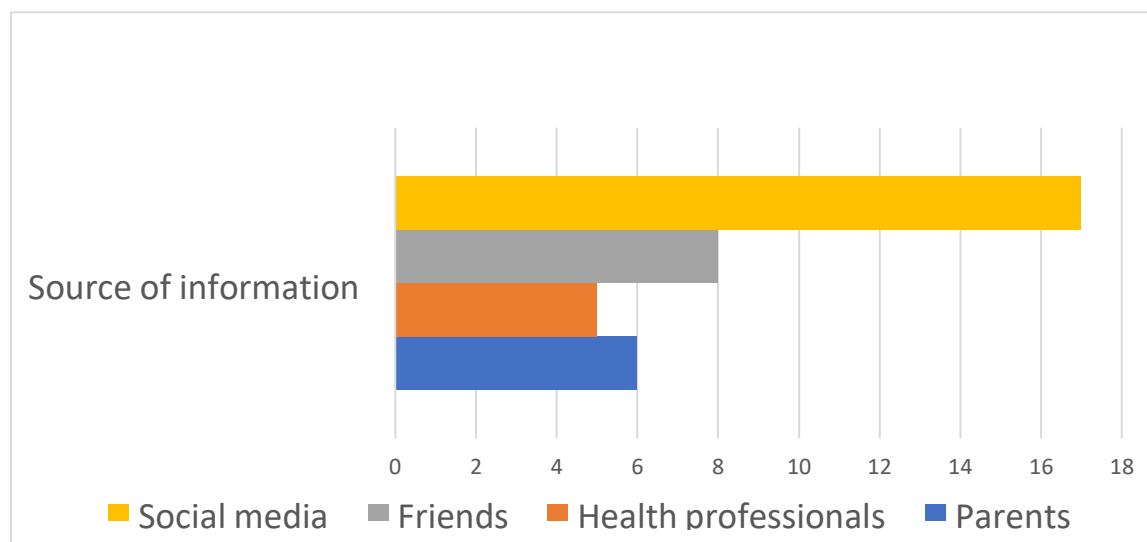


Figure 3: Distribution of the Source of information for treatment of oral ulceration

The sources of information for treating oral ulceration in this study included: social media, friends, Health Professionals, and Parents. Social media: 17 (47.2%) was the highly used source of information for treating oral ulceration among the participants.

It is of great importance to intensify efforts to improve the oral health care of hospitalized patients to minimize potential causes of deterioration in a patient's health (Lin et al., 2011; Mortazavi et al., 2016).

This includes recruiting well-trained staff, developing and implementing oral healthcare policies and guidelines (Rani et al., 2024), and continued assessment of nurses' knowledge, attitudes, and awareness regarding oral healthcare measures (Misin et al., 2020; Taheri et al., 2020; Rani et al., 2024)

The culture of dental visits is better when compared to previous reports in Nigeria. However, there is a need to encourage dental visits in this population (Byahatti, 2013) The participants employed various sources to seek treatment for their oral ulcers. Social media 17 (47.2%) was the most common source. The growing influence of oral health education cannot be overemphasized (Zeng et al., 2022).

The combination of these factors suggests that while many participants maintain good oral hygiene practices, the risk of oral ulceration due to inadequate oral hygiene, infrequent dental visits, and stress can occur. Education on consistent oral hygiene and the importance of regular dental visits

could help mitigate the risk of oral ulcerations in this population.

CONCLUSION

Enhancing the knowledge and care of oral ulceration among dental nursing students is crucial for improving patient care and outcomes. By integrating comprehensive educational training, standardized clinical guidelines, effective patient communication, and continuous professional development, dental nurses can be better equipped to diagnose, manage, and educate patients about oral ulcers. Collaboration with interdisciplinary teams and the adoption of innovative approaches will further empower dental nursing students to provide high-quality care. Ultimately, these efforts will contribute to more efficient and effective management of oral ulceration, leading to improved patient care, well-being, and satisfaction.

RECOMMENDATION

Introduction of comprehensive educational training modules on oral ulcer, regular workshops, and webinars to improve the dental students' knowledge. Implementing these recommendations will enhance the knowledge and care of oral ulcers by dental nurses, patient outcomes, and the effective management of oral ulceration.

Conflict of Interest. None

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