

Assessing the Oral Hygiene Awareness and Practice among Patients Attending Dental Clinic of a Private Hospital in Southern Central Nepal

Dr. Nikita Khanal,¹ Dr. Shishir Poudel²

¹Department of Dentistry and Oral Health, Bharatpur Samudayik Hospital, Hospital Road, Chitwan, 44200, Nepal;

²Namaste Dental Care Home, Hakim Chowk, Chitwan, 44200, Nepal

Correspondence:

Dr. Nikita Khanal. Email: drnikitakhanal@gmail.com

ABSTRACT

Introduction: Good oral hygiene plays vital role in maintaining healthy mouth. An outlook of people towards their dentition affects their dental health. The scarce literature on oral health knowledge and behaviours among the population in Bharatpur encouraged us to assess the oral hygiene awareness and practice among patients attending a private hospital in Chitwan.

Objective: To assess the oral health knowledge, practices and attitudes among the patients visiting dental clinic of the hospital.

Materials and Method: A descriptive cross-sectional study with convenience sampling done from April to May 2019 among dental patients of age-group 15-60 years attending Bharatpur Samudayik Hospital. A self-administered questionnaire was used. New patients providing informed consent and responding to all questions were included while those physically disabled, and pregnant women were excluded. Descriptive statistics, frequencies and proportions were reported with Statistical Package for Social Sciences (SPSS) version 23 for Mac OS. Ethical approval was obtained from the hospital review board.

Result: Out of 128 participants, only 52 (40.63%) brushed twice daily while 113 (88.28%) used toothpick as interdental aid with 123 (96.09%) visiting dentist only in problems and showing lack of knowledge of oral hygiene awareness and limited knowledge of oral hygiene practices.

Conclusion: It was deemed important to uplift the dental status by not only assessing and rendering the treatment required but equally determining the patient's oral health awareness level and their attitude towards dental care. A good comprehensible educational program promoting preventive oral health care and correct oral hygiene practice could be beneficial.

Keywords: Dentistry; healthcare; knowledge; practice; survey.

INTRODUCTION

Globally oral disease is a major public health concern with high prevalence and significant social impact affecting the individual's quality of life.¹ Studies show, patients from developing nations have poor oral health convictions and practices.²⁻⁶ Even the urban population, despite having simple access to dental facilities, endure dental infections due to carelessness in dietary propensities and undesirable ways of life.⁷

Oral health makes a fundamental piece of one's general health and good oral hygiene practice is a viable preventive measure for maintaining it. Evidence shows that brushing twice daily and regular dental visits help counter oral health issues.⁸

In spite of being exceptionally preventable, a generous extent of the Nepalese populace encounters oral health issues, particularly poor and underprivileged people.⁹ Modernisation and changed dietary habits adds to the poor oral

health status in Nepal.⁹ To our knowledge, no study has been done determining the oral hygiene awareness of population attending dental Out Patient Department (OPD) in the hospital setting in Bharatpur. Hence, it was deemed essential to conduct a survey in a hospital setting with a prime focus to assess the awareness level among the patients visiting Bharatpur Samudayik Hospital, from Bharatpur's urban and rural localities.

MATERIALS AND METHOD

A descriptive cross-sectional study with survey was planned and a convenience sampling technique was adopted in the present study. New patients who were visiting the dental OPD of Bharatpur Samudayik Hospital in Chitwan during the study period of two months from April to May 2019 and who agreed on participating were included in the study. A total of 150 participants partook in the study.

The research instrument was primarily a closed-ended questionnaire which was taken from a study conducted by Jain et al.¹⁰ The 16-item questionnaire sought information on sociodemographic, oral health related knowledge, practices, and awareness of patients and their approaches towards their oral health. Only new patients attending the dental OPD of the hospital and who responded to all the given questions were included in the study while patients under the age of 15 years, and those above the age of 60 years, physically disabled, those with debilitating diseases and pregnant women were excluded from the study since their results cannot be generalised to general populace.

Ethical approval was obtained from the hospital review board to commence the survey and informed verbal consent was taken, and the participants were given assurance regarding confidentiality of their responses. Then, the questionnaires were handed out to the patients and were requested to mark their answers and complete it individually. Patient's knowledge, attitude, and practices were assessed by using a questionnaire which included the general information about their name, age, and sex. Oral health related knowledge on uses of interdental aids such as dental floss, interdental toothbrush, toothpick, and mouthwash were assessed. Their attitude towards their need of treatment for oral health conditions such as tooth decay or bleeding

gums, behaviour towards prevention of oral diseases and approaches on routine dental check-ups were evaluated. Oral hygiene practices, mainly brushing and rinsing habits and, frequency of dental visits was recorded.

The questionnaires were handed to the participants while they were sitting in the waiting area by one member of the research team. The patients were informed that they had the complete right not to answer any questions they did not like to answer. Few closed-ended questions required dichotomous yes or no reactions. The questionnaire was managed in English; however, any respondent who failed to grasp the meaning of any of the inquiries because of language obstruction was given adequate clarification by one of the researchers to have the option to react to the inquiries reasonably. The data was analysed using the statistical analysis software SPSS version 23 for Mac OS. Descriptive statistics were done, frequency distribution and standard deviation were obtained.

RESULT

The questionnaires were distributed to a total of 150 potential participants. The final sample size of complete questionnaires comprised of 128 participants with 74 (57.81%) females and 54 (42.18%) males leading to a response rate of 85.33%. The age ranged from 15-60 years with mean age of 36 ± 11.76 years. Overall, 86 (67.18%) of the participants used toothbrush and paste without noticing the type of toothpaste whereas 26 (20.31%) admitted on using herbal toothpaste and 16 (12.5%) using fluoridated toothpaste. Additionally, 15 (11.71%) of the participants used dental floss as interdental aid while majority 113 (88.28%) used toothpick.

The frequency of brushing tooth (Figure 1), type of toothbrush used by participants (Figure 2), brushing technique (Figure 3) are shown in the respective figures. Similarly, frequency of changing toothbrush and frequency of dental visits done by the patients are shown in Table 1. Participants noticing bleeding from gums and foul smell from mouth and wanting to get their teeth cleaned are shown in the bar diagram (Figure 4). Likewise, participants who rinsed their mouth after eating, cleaned their tongue routinely and those who used mouthwash are shown in the bar diagram (Figure 5).

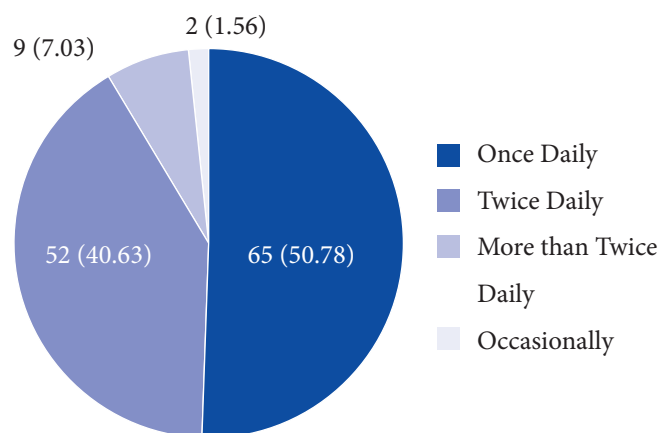


Figure 1: Frequency of brushing teeth, n (%).

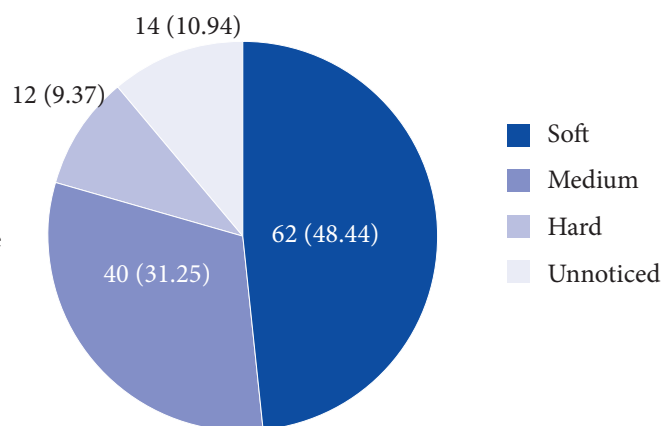


Figure 2: Type of toothbrush used, n (%).

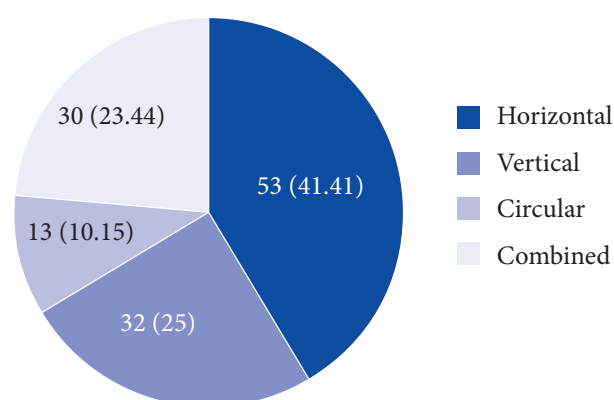


Figure 3: Brushing technique performed, n (%).

Table 1: Frequency of changing toothbrush and dental visits done by patients.

Time period	n (%)
Frequency of changing toothbrush	
3 months	58 (45.31)
6 months	24 (18.75)
After 6 months	46 (35.94)
Frequency of visiting dentist	
6 months	4 (3.13)
12 months	1 (0.78)
Only in problems	123 (96.09)

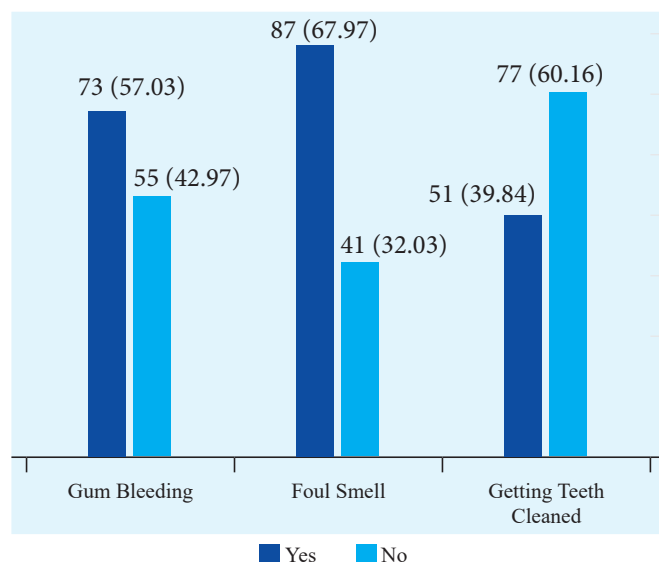


Figure 4: People noticing bleeding from gums and foul smell and wanting to get their teeth cleaned, n (%).

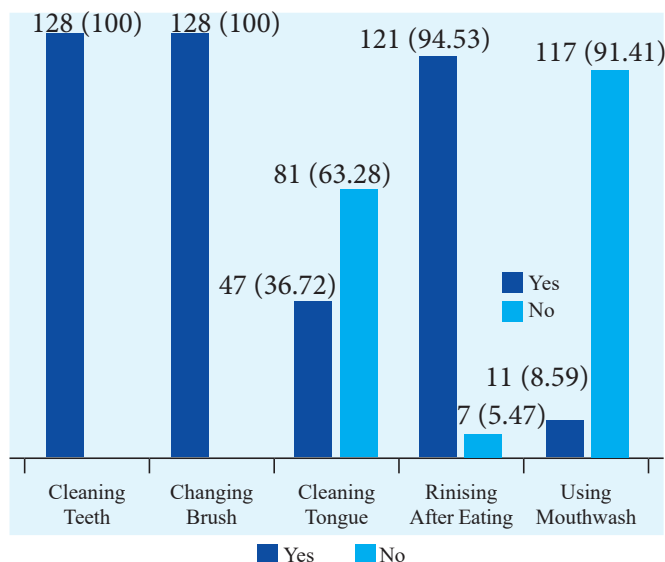


Figure 5: Participants response regarding their teeth cleaning habit, changing of their brush, cleaning their tongue, rinsing after eating and using mouth wash, n (%).

DISCUSSION

One can retain their healthy teeth for life with proper preventive dental care. Preventive oral health education and its implementations are progressively significant methods for keeping our teeth sound. Also, the level of literacy, influences

consistency on the part of the patients seeking dental treatment.¹¹ Asian methods for managing health and infection are not the same as conventional western ideas in that the greater part of the health beliefs and practices are identified and rehearsed in the home, and expert assistance is looked for only when home remedies fail. The significant dependence

on self-care may from one viewpoint weaken the possibility of oral healthcare by deferring dental visits or make these unnecessary.¹² Preventive oral health education is in the nascent stages in Nepal. The present study has demonstrated the general sentiment that oral hygiene has still stayed as a disregarded and unrealised real social issue.

The relationship between dental services utilisations and main demographic variables are discussed in this study. The study shows that the sample population consisted greater proportion of female with 74 (57.81%) visiting the dental OPD in the two months period during the survey. This conclusion is on par with studies conducted by Ventä et al.¹³ with higher rate of utilisation by female patients. This condition might be clarified on the premise that females often think progressively about their body and appearance.

Toothbrushes and toothpastes have been acknowledged worldwide as means for day by day oral hygiene routine. In any case, the employments of these aids have been restricted in certain communities because of conventional and social practices rendering lack of attention to the advantages of these tools. In this survey, participant's tooth brushing practices are still a long way behind the worldwide suggestion (two times per day) with just 52 (40.63%) of the members brushing teeth two times every day which is less when contrasted with United States where 90% of the examined group was doing likewise.¹⁴ The same proportion of subjects were also brushing their teeth in horizontal brushing technique which is deleterious to the teeth and gingiva. This finding agrees with that of the study done by Zhu et al.¹⁵ where 60% of the sample did the same. Only 62 (48.44%) used soft toothbrush with more than half either using hard or medium toothbrush or having no idea of the type of toothbrush they were using which will further jeopardise the tooth structure.

Usually, there is lack in the utilisation of interdental aids as a preventive means. Dental floss and other interdental cleaners are perceived as a significant piece of dental hygiene and are expected to remove plaque and other particulate matter from between the teeth and gingiva.¹⁶ It is noteworthy that information regarding interdental aids was low with 113 (88.28%) utilising toothpick for interdental cleaning. It is necessary to intervene for building the knowledge regarding dental floss and utilisation of the same. Interestingly, however, 121 (94.53%) flushed their mouth subsequent to eating and not

many used mouth washes as tooth cleaning aid despite the dynamic promotion of mouth washes in audio and visual media.

Bad breath was experienced by 87 (67.97%) of the members in the present investigation which is as opposed to the survey done on the overall public of Japan where just 24% complained of it.¹⁷ Also, 73 (57.03%) of the subjects presented bleeding from gums. This examination agrees with investigations of Gilbert et al.¹⁸ and Buhlin et al.¹⁹ who demonstrated that self-reporting of bleeding gums was high. This examination is interestingly in conflict with the investigations of Nagarajan and Pushpanjali in India,²⁰ Tervonen and Knuttila,²¹ and Kallio et al.²² who demonstrated that many of the patients did not notice bleeding from gums. Furthermore, tongue cleaning as standard oral hygiene practice was exhibited by just 51 (39.84%) which is similar to an investigation done by Jain et al. where 20% of the examined populace cleaned their tongue.¹⁰

Fluoride containing compounds have been utilised in averting early carious lesions since early days. Ideal water fluoridation has been perceived as the absolute, most financially effective general health measure known to science for halting tooth decay.²³ Thus, it was considered essential to decide the information and attitudes of people towards the subject of fluorides. Disappointingly, just 16 (12.5%) of the examination subjects perceived the need of fluoride and utilised fluoridated toothpaste while 86 (67.18%) of the participants never considered the sort of toothpaste they were using. Besides 26 (20.31%) of the subjects stressed on utilising herbal toothpaste. There is a solid requirement for the advancement of oral hygiene, as a large portion of the Nepalese individuals cannot manage the cost of the exorbitant treatment for dental diseases. Possibility of water fluoridation in Nepal is as of now not attainable, with the absence of single supply arrangement of water, rather salt fluoridation could be ventured as an option, as they have not yet been implemented in Nepal.

Visiting a dental specialist is yet not thought about a preventive dental conduct. At present it just relies upon the treatment needs.⁷ The interval of dental visits ought to be undertaken explicitly for every patient depending upon the degree of illness and the particular risk factors. In the examination, 123 (96.09%) of the members did not have a standard dental visit done. Numerous members visited a dental specialist essentially because they had pain

in their oral region, or they perceived a symptom.

The distribution of scientific data over a given population has consistently been affected by ethnic, political, and social qualities. Oral hygiene instructions training is no exception. Improving oral health literacy requires serious synergistic actions among health providers, specialists, educators, policymakers, public authorities, the commercial sectors, and public.

While the inadequate oral health knowledge shown by participants in the present research can't be legitimised, a significant standpoint that might be considered for this alarming finding could be the amount of time, resources, and accounts spent by the legislature and authority experts. Tragically, oral health is given the last priority by health policy makers in Nepal. Another disadvantage is that, common to other underdeveloped nation, our nation is experiencing fiscal load notwithstanding for subsistence, not to mention giving quality health care. This comprehension would enable health care policy makers to more likely perceive the degree of individuals' oral health knowledge and practices, which would prompt better allocations of resources to the areas required.

Also, the role of dental experts in such situations cannot be overlooked. In a city like Bharatpur where dental workforce is burgeoning, the role of dental experts in carrying out dental camps in the domain of preventive oral healthcare may give an appropriate and practical alternative. A doable methodology for this city is making a unique board of trustees or committee which would incorporate representatives from the state dental council, teachers in dental schools and other dental clinics. The council would oversee recognising different resources of good dental health educational programs. Easily comprehensible oral-health instruction materials that are written in the local language can enhance oral health knowledge among rural population.

Also, to include, oral health is mostly looked after by the private sectors and individual practices. But there are innumerable non-formal medical facilities or non-licensed personnel who have worsen the oral condition by providing false treatment by quackery. These areas need to be further investigated and demand needful action. Further, Nepal needs specialists in dental public health and upgrade educational program emphasising importance to prevention. Inclusion of oral health care information in school curriculum could be beneficial in incorporating good oral hygiene

amongst the growing students. Consequently, dental alumni should perceive the significance of preventive dental projects.

The results of such questionnaire surveys should always be viewed with caution. There is a possibility of bias created especially when the respondents are aware that the survey is being conducted by dental specialists or when filling favourite responses to the questions in the questionnaire.

Furthermore, the data reported in this study was based on patients' recollection and their ability to comprehend the questions. Thus, recollection bias might need to be considered when analysing the results. To get accurate responses, an effort was made to provide a wide range of possible answers. Henceforth, at times, patients were additionally clarified individually, which increased patients' comprehension of the questions. All efforts were made to minimise the adverse response biases by maximising confidentiality during data collection to influence the degree of openness and ensure understanding of the given instructions, types of items and situations. This difference in association may be due to the small sample size too.

CONCLUSION

It was found that knowledge, attitude, and practice of the patients were not up to the mark. Basic technique like tongue cleaning is not followed by most of the participants. Most of them visited a dentist only if they had a problem. There is a definite and immediate need of organised training switching their focus from people's education to more on the improvement of oral health behaviours and practices.

The role of dental professionals in maintaining good oral health should be emphasised in the community. There is a great demand to control and reduce the incidence of the dental caries and periodontal diseases. These two ailments require special attention and efforts to minimise their complication. There is a dire need to spread awareness about correct teeth cleaning techniques because poor oral hygiene can have a detrimental effect on the overall health and quality of life of an individual.

Hence, there is a need to educate and spread knowledge of proper dental care and prevention of dental diseases through the dentists, outreach programs and relevant public health awareness measures to make a healthy individual and a healthy society. Also, broader domain regarding oral health

literacy so that social and cultural factors that influence oral health can be addressed, still needs to be explored.

Further research is recommended to investigate the reasons for lack of good oral health practice

to minimise the gap between behaviour and belief among patients.

Conflict of Interest: None.

JNDA

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