



Original Research Article

Knowledge and attitude among nursing students in Shimla, Himachal Pradesh towards malocclusion and orthodontic treatment

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Abstract

Background: Malocclusion is one of the leading causes of oral problems faced by individuals. Malocclusion can lead to functional as well esthetic problem. Awareness about the deleterious effect of malocclusion is limited among the common masses. Nursing professionals are one of the main pillars of educating patients regarding diseases in medical profession. This article throws light on the awareness regarding malocclusion among professionals like nursing students.

Aim: The aim of this study was to assess the knowledge and attitude among the nursing students towards malocclusion and orthodontic treatment.

Materials and Methods: A questionnaire of 10 questions assessed the knowledge and attitude of 191 nursing students towards malocclusion and orthodontic treatment with a yes or no response. The data was collected and tabulated in the Microsoft Excel spreadsheet. The results were calculated in percentage.

Results: 79% nursing students knew about the term 'malocclusion' and knew that malocclusion leads to chewing problems. 47% had knowledge that irregular teeth leads to breathing problems. 88% knew that some teeth have to be removed during orthodontic treatment. 92% subjects admitted that orthodontic treatment enhanced facial appearance. 84% of the students considered the orthodontic treatment to be an expensive affair while 78% thought it to be time consuming. 27% visited the dentist frequently. 26% of the students showed interest in undergoing orthodontic treatment if it would continue for more than 2 years.

Conclusion: The present study showed that nursing students of Shimla, Himachal Pradesh had adequate knowledge about orthodontic treatment but their attitude towards undergoing orthodontic treatment showed reluctance because they considered it to be a time consuming and expensive process.

Keywords: Knowledge, Attitude, Malocclusion, Orthodontics, Nursing students.

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1. Introduction

Malocclusion is a dental condition in which the alignment of teeth is not normal. The teeth overlap each other or are displaced out of arches due to non-availability of space. Malocclusion can also be caused due to excessive space in the maxillary and mandibular arches.

Malocclusion may be caused by an underlying pathological condition like adenoidal hypertrophy, deviated nasal septum, tonsillitis. Various oral habits like thumb sucking, tongue thrusting, pen sucking, lip biting and nail biting also contribute to malocclusion. Awareness about how malocclusion occurs is a very important aspect which one should have in order to avert that condition. A nurse plays a very crucial role in a patient's overall health and education. Nurses are primary caregivers who manage the physical

needs, monitor their physiological status and provide emotional support to patient and their families. Nurses are responsible for educating patients and promoting healthy life style among patients. Therefore it is very important that nurses are fully aware and equipped with the right knowledge so that they can contribute to the society by educating the patients in a right way.

Knowledge and awareness about oral health and diseases among nursing students is must as they will be the prime care givers to the patients. Overall health of the patients including their oral health should be a priority for nurses to reap the benefit of good overall care.

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2. Materials and Methods

This was a cross-sectional study conducted among 191 nursing students of a nursing college in Shimla, Himachal Pradesh. The age of the subjects was 18-24 years. As it was a questionnaire survey no ethical clearance was required. Informed consent was obtained from the subjects. A questionnaire consisting of 10 questions with a yes or no response was distributed among the subjects. The questions assessed the knowledge and attitude of the nursing students regarding malocclusion and orthodontic treatment.

2.1. Statistical analysis

The data was collected and tabulated in the Microsoft Excel spreadsheets. A total of yes response was calculated for each question for the 191 participants and the results were calculated in percentage using SPSS software version 21.0.

3. Results

The results of different queries were calculated and expressed in percentage (**Table 1**). 79% of the subjects had knowledge about the term ‘malocclusion’. 79% of the nursing students thought that crooked teeth leads to chewing problem and 47% thought that breathing problems were associated with irregular teeth. 88% of the subjects had knowledge about orthodontic treatment that some teeth might have to be removed during treatment for proper alignment of teeth. 92% of the subjects had knowledge that orthodontic treatment enhances facial appearance. 84% of the nursing students had the perception that the treatment is expensive while 78% thought it to be a cumbersome procedure. Only 27% of the subjects visited the dentist frequently. 23% of the nursing students had undergone orthodontic treatment. 26% of the subjects showed interest in undergoing orthodontic treatment if it would last longer than 2 years.

4. Discussion

According to World Health Organisation, oral health is an important aspect in an individual’s life.¹ Oral health knowledge is must as it affects the behaviour of an individual towards oral hygiene.^{2,3}

The term “irregularities of teeth” is usually used to describe teeth which are unevenly placed but it does not express the full meaning of these deformities.⁴ According to World Health Organisation malocclusion can be categorized under Handicapping Dentofacial Anomaly.⁵

Attitude is a settled way of thinking or feeling about something. Attitude of a lay person towards malocclusion depends on self-perception of dental appearance, age and his/her definition of attractiveness.^{6,7} Attitude towards orthodontic treatment depends on whether the person had previously undergone orthodontic treatment or his/her parents have undergone orthodontic treatment.⁸ According to some studies patients with better knowledge of orthodontics have a good attitude towards orthodontic treatment.^{9,10}

Knowledge about the term ‘malocclusion’ was 79% among the nursing students which was comparable to a study conducted by Clement EA¹¹ in Kerela population (80.5%). However this was less when compared to a study conducted on non-dental students by Shyagali TR et al., (97.1%).¹²

79% of the nursing students had knowledge that improper alignment of teeth affects mastication and is related to chewing problems which is reportedly more than that described by Clement EA.¹¹ Rithanya et al. conducted an awareness study on nursing student of Oman and reported an awareness of 54.7% about chewing problems related to malocclusion which is less than the present study.¹³ Adegbite et al., Faizee S et al. and Mishra et al. conducted study on medical students and young adults respectively and reported awareness about chewing problems among the subjects which was 68.2%, 34.9% and 44% respectively.¹⁴⁻¹⁶

Knowledge about breathing problem due to malocclusion was 47% in the nursing students in Shimla, Himachal Pradesh which was more than that reported by Clement EA¹¹ (45%) and Mishra et al., (21%).¹⁶ 92% of the nursing students had knowledge that orthodontic treatment would enhance facial appearance which was more than that reported by Clement et al., (85%) and Rithanya et al., (89%).^{11,13}

Table 1: Knowledge and attitude towards malocclusion and orthodontic treatment

Questions to assess the knowledge and attitude regarding malocclusion	Yes	%	No	%
Have you come across the term ‘malocclusion’?	50	9%	41	21%
Do you think crooked teeth leads to chewing problem?	51	9%	40	21%
Do you think malpositioning of teeth affects breathing?	90	7%	01	53%
Do you know some teeth have to be removed for correction of irregular teeth?	168	88%	23	12%
Do you know orthodontic treatment can refine/enhance the facial appearance?	175	92%	16	8%
Is orthodontic treatment an expensive procedure?	60	4%	31	16%
Do you think orthodontic treatment is a time consuming procedure?	48	6%	43	24%
Do you visit your dentist frequently?	51	27%	140	73%
Have you had orthodontic treatment before?	43	23%	148	77%
Would you undertake orthodontic treatment if it takes more than 2 years?	148	78%	43	22%

88% of the nursing students had knowledge that teeth have to be removed for orthodontic treatment which was comparable to the results compiled by Clement EA (78%) but was more than that reported by Mishra et al., (21%).^{11,16}

Regarding the attitude towards orthodontic treatment 92% of the nursing students knew that orthodontic treatment would enhance facial appearance which was more than that described by Clement EA (85%), Shyagali et al., and Shekar et al (65.8%).^{11,12} Regarding the attitude towards expenses of the orthodontic treatment 84% of the nursing students considered orthodontic treatment a costly affair. This was contrary to a study conducted by Clement EA and Sharma et al., where 49% and 43% of the subjects respectively considered the orthodontic treatment to be costly.^{11,18}

78% of the nursing students considered orthodontic treatment to be a cumbersome procedure which was more than results documented by Clement EA (66.5%) and Sharma et al., (39%).^{11,18} Only 27% of the nursing students of Shimla, Himachal Pradesh admitted that they visited the dentist frequently for regular check-up and restorations which was similar to a study conducted by Mishra et al., (27%).¹⁶ Study conducted by Adegbile et al., documented that 46% of the non-dental students visited the dentist for frequent check-up yearly which was more than the present study.¹⁴

On inquiring whether the nursing students were willing for undergoing orthodontic treatment if treatment lasted for more than 2 years 26% of the nursing students answered in the affirmative. This result was less than that reported by Shyagali et al., and Rithanya et al., (54.7%).^{12,13} However the result of the present study was more than that documented by Clement EA (12.5%) in nursing students.¹¹

5. Conclusion

The present study showed that nursing students of Shimla, Himachal Pradesh had adequate knowledge about orthodontic treatment but their attitude towards undergoing orthodontic treatment showed reluctance because they considered it to be a time consuming and expensive process.

6. Source of Funding

None.

7. Conflict of Interest

None.

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