Knowledge and attitude of dental postgraduate students towards oral and peri-oral piercing in Davanagere city: A cross-sectional survey

Veeresh DJ, Puja C Yavagal, Denzy Lawrence, Tanisha Das, Juhi C Kavi and Thushara Mohanan

Abstract

Background: Oral and perioral piercing when performed under unhygienic conditions, can cause certain complications. Hence, a study was conducted in dental colleges of Davanagere city among postgraduate students with the aim to assess their knowledge and attitude towards oral and peri-oral piercing.

Methods: Across-sectional survey involved 212 dental postgraduate students of dental colleges in Davanagere city who consented to participate. A pre-tested, validated, self-administered questionnaire containing 15 multiple-choice items assessing the postgraduate students’ knowledge and attitude towards oral and peri-oral piercing practices was used for data collection. Data was presented in the form of frequencies and percentages.

Results: Participants had fair knowledge regarding oral and perioral piercing. Majority of participants (75%) felt oral and peri-oral piercing practices as a sign of style /fashion statement. Around 45-50% felt tongue piercing and nose piercing (66%) as most prevalent type among oral and perioral piercing practices and canine was the most preferred tooth for piercing (43%). Majority (55%) felt that piercing practices were performed by unlicensed people. Many (79%) were aware of complications associated with piercing and suggested removal of pierced metal in such conditions (58%). Around 76.7% said they preferred Cosmetic dentist for piercing and 94% felt that dentists with oral and perioral piercing strongly influence the perception of their patients towards oral piercing.

Conclusion: Dental postgraduates had fair knowledge regarding oral and peri-oral piercing practice and its possible complications. However, the attitude towards the practice which is highly prevalent in the society was affirmative and positive among postgraduates which is a cause of concern.

Keywords: Perioral, lip piercing, esthetic surgery, facial, dental

1. Introduction

The increased prevalence of highly visible body modifications is of interest to all healthcare professionals. Body modification is defined as (semi-) permanent, deliberate alteration of the human body like body piercing [1]. Piercing is the process of creating a hole in the skin, subcutaneous tissue or cartilage in order to be able to insert jewellery [1]. In developed countries, the prevalence of body piercing including oral and peri-oral piercing among adolescents and young adults is reported to be between 4.3%-51% [2]. The most frequently mentioned motivations in the literature are the expression of individuality and the embellishment of one’s own body [1]. Other major reported motivations for the acquisition of body piercings include self-expression, beauty, art and fashion, pleasure, personal narrative, physical endurance, group affiliations and commitment, resistance, spirituality and cultural tradition, provocation, a daring attitude, addiction, sexual motivation, ‘just for kicks’, etc and new social and cultural movements continue to support the popularity of such practices [1]. Oral and facial piercings have seen a rapid increase in popularity [1]. Oral piercing is a practice that is gaining acceptance as a sign of individuality, marginality, decoration, or group membership [1]. Oral and peri-oral piercing that is performed under unhygienic conditions, however, can cause certain complications. Some of these are nerve injuries, allergic reactions, infections, bleeding, aspiration, Hepatitis B, C and D, human immunodeficiency virus (HIV), syphilis and tetanus.
Infection, pain, bleeding, edema, inhalation, dental trauma, contact lesions, and oral interferences, are all complications of lingual piercing \cite{13,4}. The proportion of the different complications that present with oral piercing varies. In one study, 70% of subjects with piercing had some type of complication compared with 17% in another study. It has been suggested that there might be an association between risk behaviors and piercing practices \cite{31}. It is for this reason that health professionals must be aware of the issues that are caused by piercing, which are fads that are steadily increasing among young people today, and also of their association with risk-taking behavior. They must provide young people, families and teachers education and guidance \cite{5,6}. Dental professionals need to be aware of the issues surrounding this subject and be able to provide correct information to those who are considering an oral or peri-oral piercing.\textsuperscript{1} Dental professionals may also be confronted by complications to oral health and/or general health resulting from these piercings. As postgraduates are constantly in contact with patients as a part of their clinical exercises, they are at a higher chance of coming across certain complications of oral and peri-oral piercing cases. Dental postgraduates are also faced by knowledge seeking adolescents especially college going students as they perceive it to be our area of specialty. They are usually at the rear end of being asked about safety and complications of oral and peri-oral piercing. The attitudes of postgraduates’ students towards piercing practices are also pertinent as it influences their apprehensions, decisions and queries raised regarding them. Literature search revealed very few studies in this area, therefore a study was planned to assess the knowledge and attitudes of dental postgraduate students towards oral and peri-oral piercing practices.

2. Methodology

A cross sectional survey was conducted in dental colleges of Davanagere city. A detailed list of postgraduate students studying in all the nine specialties of dentistry in two dental colleges of Davanagere was obtained from the respective administrative & examination sections of the colleges. After obtaining the ethical clearance from “Institutional Review Board” and written consent from the post graduate students of both the dental colleges, a self-administered questionnaire was used as the data-collection instrument. Developed on the basis of literature, it consisted of socio-demographic information (institute, department of post-graduation, year of post-graduation, years of clinical experience) and 15 multiple-choice questions to evaluate their knowledge and attitude towards oral and peri-oral piercing practices encountered in their day-to-day practice and learning.

2.1 Questionnaire validity

The questionnaire was subjected to pilot testing involving 10 postgraduate students for ensuring its feasibility. Modifications were made accordingly. Questionnaire validation was tested by an expert panel of 8 in the relevant fields. Content Validity Index was calculated to be 0.76 reflecting favorable validity. Cronbach’s alpha was calculated (\(\alpha = 0.87\)) and test-retest analysis showed a good reliability of the questionnaire.

2.2 Data collection

A total of 212 subjects agreed to participate in the study. Data was collected at the college premises. Each participant was given a time period of 15 minutes to fill up the questionnaire after which the questionnaire was collected by the investigators. The partially filled/incomplete questionnaires were excluded during data analysis.

2.3 Statistical analysis

Data were compiled and tabulated systematically in Microsoft Excel Spreadsheet and subjected to statistical analysis (SPSS version 20.0 (IBM Corporation, SPSS Inc., Chicago, IL, USA). Descriptive statistics were employed to analyze data which was presented in the form of frequencies and percentages.

3. Results

A total of 212 questionnaires, that were completely answered were considered for data analysis. Participants had fair knowledge regarding oral and peri-oral piercing. Majority of participants (75%) felt oral and peri-oral piercing practices as a sign of style/fashion statement. Around 45-50% felt tongue piercing and nose piercing (66%) as most prevalent type among oral and peri-oral piercing practices and canine was the most preferred tooth for piercing (43%). Majority (55%) felt that piercing practices were performed by unlicensed people. Many (79%) were aware of complications associated with piercing and suggested removal of pierced metal in such conditions (58%). Many felt that piercing would interfere in speech, mastication, deglutition and breathing problems (38%). (Table 1) Participants had a favorable attitude towards oral and peri-oral piercing practice. Many felt that being unconventional and dare devil (60%) was the reason for undergoing piercing. Around 75% would treat the patient depending upon the type of complication associated with piercing. Surprisingly many agreed for recommending piercing for their relatives and friends (55%). Around 76.7% said they preferred Cosmetic dentist for piercing and 94% felt that dentists with oral and peri-oral piercing strongly influence the perception of their patients towards oral piercing. (Table 2)

Table 1: Distribution of responses to knowledge related questions

| Item No | Question                                           | Response        | Response rate (%) |
|---------|----------------------------------------------------|-----------------|-------------------|
| 1       | What do you think is the most common reason for oral and peri-oral piercing | Self-expression | 13                |
|         |                                                    | Symbol of fashion | 38               |
|         |                                                    | Beauty           | 12                |
|         |                                                    | Style statement  | 37                |
|         |                                                    | Buccal piercing  | 8                 |
|         |                                                    | Tongue piercing  | 46                |
|         |                                                    | Tooth piercing   | 36                |
|         |                                                    | others           | 10                |
|         |                                                    | Tongue           | 50                |
|         |                                                    | Lip              | 36                |
|         |                                                    | Floor of the mouth | 7         |
|         |                                                    | frenum           | 7                 |
| 3       | Which is the most preferred site for intra oral piercing | Lower lip border | 21                |
|         |                                                    | Corner of the mouth | 7      |
The ancient practice of oral and perioral piercing has been common in western cultures in the past decades, particularly among adolescent and young adults of all socioeconomic levels. Cultural ideals largely influence the type of piercing that is common in different parts of the world. Piercing is done for self-expression, pleasure, individuality and spirituality. Common intra-oral and perioral location for piercing include the tongue, lips and less common sites include the cheek, labial and lingual frenula and uvula [5]. These practices have also seen the rise among the Indian population as well, especially among the adolescents and younger people. However, complications associated with piercing include infection, bleeding and local trauma which are frequent enough to question the safety and dangers of oral piercing [7]. Majority of complications are associated with tongue piercing followed by lip piercing and other forms.

Tooth fracture is mostly reported during tongue piercing. Food debris and calculi that accumulate in the piercing area and on surface of the jewelry promote infection. The present study results highlighted the knowledge of postgraduate students regarding piercing and its possible complications faced by patients in day-to-day clinical practice. Study results could not be compared with other studies as authors could not find any study done among postgraduate students. Garcia-Pola et al. in their study found high prevalence of postoperative pain and hemorrhage which were commonly encountered complication in patients with oral and peri-oral piercing [8]. Inflammation was the most frequently self-reported complication associated with piercing. Inspite of potential problems, there is a lack of awareness among and even among piercers [9]. Dental professionals are in a unique position to detect dental complications early and to provide information about prevention and maintenance of oral piercings. In fact, the need for education programs targeted at dental students in dental schools is beneficial [10]. A study done by Junco et al. showed significant improvement in the scores for the oral piercing knowledge among dental students immediately after completing a training programme which integrated support material, an online platform and an interactive DVD [11]. So, it is recommended for dental schools to assess the knowledge of dental students regarding oral and perioral piercing practices and its complications and design educational models which would improve their skills of identifying the possible complications of such practices and its management in dental practice.
The present study being cross sectional in nature at best can represent the views of a small dental postgraduate sample hence, further studies involving various health professionals’ views and opinions on oral piercing would provide the necessary data to influence the policy makers to licentiate only trained and qualified health professionals to carry out oral and perioral piercing practices.

5. Conclusion
The present study highlights the varied opinions of the dental postgraduate students about the practice of oral and peri-oral piercing. Dental postgraduate students had fair knowledge regarding oral and perioral piercing practices and their possible complications. This study re-surfaces the willingness of the postgraduate students to treat a patient who reports with a post-operative complication of piercing. Majority stressed on the need for licensed dental practitioners to provide the oral and perioral piercing services.

6. References
1. Junco P, Barrios R, Ruiz MJ, Bravo M. Educational intervention about oral piercing knowledge among dental students and adolescents at schools. International Dental Journal 2017;67(5):294-8
2. Bone A, Ncube F, Nichols T, Noah ND. Body piercing in England: A survey of piercing at sites other than earlobe. BMJ 2008;336:1426-8
3. Hennequin-Hoenderdos NL, Slot DE, Van der Weijden GA. The incidence of complications associated with lip and/or tongue piercings: a systematic review. Int J Dent Hyg 2016;14(1):62-73.
4. Plessas A, Pepelassi E. Dental and periodontal complications of lip and tongue piercing: prevalence and influencing factors. Aust Dent J 2012;57:71-78.
5. Datta A, Panigrahi A, Mohanty S. Oral and Perioral Piercing: Fashion or Vandalization from Dentists’ Perspective. Indian Journal of Public Health Research and Development 2019, 10(11).
6. Yadav P, Mohapatra AK, Jain A. Oral piercing/ART-fashion or risk. Journal of Advanced Medical and Dental Sciences Research 2014;2(2):100-3.
7. Dermata A, Arhakis A. Complications of oral piercing. Balkan Journal of Stomatology 2013;17(3):117-21.
8. Garcia-Pola MJ, Garcia-Martin JM, Varela-Centelles P, Bilbao-Alonso A, Cerero-Lapiedra R, Seoane J. Oral and facial piercing: Associated complications and clinical repercussion. Quintessence international 2008, 39(1).
9. Vozza I, Fusco F, Corridore D et al. Awareness of complications and maintenance mode of oral piercing in a group of adolescents and young Italian adults with intraoral piercing. Med Oral Patol Oral Cir Bucal 2015;20:413-418.