Oral health-related attitude and practices of transgender population in Puducherry UT, India---A cross-sectional questionnaire survey

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Abstract

Background: Oral health is apparently compromised among the transgenders and not enough data is available on the same, without which appropriate measures cannot be drafted and implemented. Objective: To determine oral health practices among transgender population of Puducherry UT, India. Material and Methods: A close-ended questionnaire was used to elicit responses on attitude and practices related to oral health. Self-identified transgenders were included in this study following a snowball sampling technique. Data on educational level, brushing habits, deleterious habits (tobacco and alcohol), visits to any dentist and sugar consumption was recorded. Data was analyzed for descriptive statistics. Results: More than 72% had education above high school, 86.1% used toothbrush to clean their teeth, 47% had never been to a dentist, more than 50% did not receive any oral care, 61% used associated products of tobacco, majority had a high sugar exposure and more than 55% consumed alcohol every day in varying quantities. Conclusion: Findings of this study suggests that efforts need to be increased to create awareness on oral hygiene among this socially stigmatized community to have a positive dental health attitude and behaviour.

Keywords: Attitude, oral health, transgender, tooth brushing, underprivileged

Introduction

According to World Health Organization, health is not just the absence of a disease, but a state of complete physical, mental and social wellbeing. Oral health being an integral part of general health, there are communities who lack awareness in oral health care.[1] This may be due to various socio demographic risk factors and lifestyle habits.[2] Transgenders are one of the socially disadvantaged communities in India and the social stigma associated with these communities affect their access to health and oral health care.[3]

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with an estimated population of 22,364 (in Tamil Nadu) and 252 (in Puducherry).[5]

The difficulties of transgenders range from facing exclusion form their own families, societal ridicule, lack of social security, exclusion from economic participation, lack of livelihood options, lack of specific social welfare schemes, barriers to utilize existing schemes, lack of specific healthcare services and/or discrimination in healthcare settings. All the above stated factors stem from social stigma associated with transgenders. In addition, the prevalence of high risk sexual behaviours, depression, suicidal tendencies, violence related stress and diseases like HIV are high among transgenders.[6] There is difficulty in accessing and utilizing public health care services by transgenders due to the discrimination that they face in health care settings.[7,8] These are socially vulnerable communities who have been facing rejection and discrimination from early age of their lives often resulting in alcoholism, substance abuse and consumption of smokeless tobacco. These habits can lead to oral health problems.[7] There are very few studies that shed light on oral health-related attitude and practice amongst transgender community that prompted us to take up the present study to assess the oral health-related attitude and practices awareness in the transgender population residing in Union Territory of Puducherry, India.

Materials and Methods

Study design and setting

A cross-sectional questionnaire study was conducted among transgenders of Puducherry, India. The study subjects were all the self-identified transgender, from Puducherry and Cuddalore (in Tamil Nadu). Institutional and Ethical clearance was obtained from Institutional Ethical Committee of Indira Gandhi Institute of Dental Sciences (IGIDSIRB2014NRP05FAMSCDE), Puducherry, India.

Study sample

A non-probability snow ball sampling technique identifying transgenders who were present on the day of the study and fulfilled the inclusion criteria were included. The inclusion criteria included self-identified transgenders available during the study period and those providing informed consent. Those who did not give their consent, those on medication for any systemic diseases and those who were mentally and physically retarded were excluded from the present study. The Office of the director of SCOHD (Sahodaran community for oriented health development, Puducherry), was used to identify the areas/locality of transgenders.

Survey instrument

Oral health assessment form developed by the WHO in 2013 was used to assess oral health-related knowledge, attitude and practice. The questionnaire was tested for linguistic validity. The questionnaire was translated to local vernacular language, Tamil and back translated to English. The study involved two examiners who were trained and calibrated given by the guidelines of the WHO oral health survey. The questionnaire collected data on demographic details (age, education level), their oral hygiene practices, personnel habits, consumption of sweet foods and other beverages. Incomplete questionnaires were excluded from the analysis.

Statistical analysis

The data was recorded by an assistant and entered into excel spreadsheet [Microsoft Office 2013, Microsoft Corp]. The data was then analyzed and reported as frequency distribution and proportions.

Results

A total of 98 transgender filled the questionnaire and all were included for the analysis. It was observed that 28.57% of study participants had completed their secondary schooling, 24.49% had a college degree and 7.14% had no formal schooling [Graph 1]. About 57% brushed teeth once a day and 18.37% did not brush their teeth in the last one month [Graph 2].

It was observed that about 53% (52/98) of study participants had visited a dentist and among those who have visited about 69% (36/52) had visited for consultation, 26.9% (14/52) had pain/trouble in their mouth/teeth/gums and only 3.8% (2/52) had visited a dentist for a routine check-up [Table 1]. About 51% of study participants had never received dental care, about 17% received dental care between 2 and 5 years and only 7.14% of study participants received dental care in the last six months [Table 2].

It was observed that about 8% of study participants smoked tobacco (in various forms), 31% of study participants consumed chewing tobacco and majority consumed smoking and smokeless tobacco [Graph 3]. In addition, it was observed that 28% of study participants consumed less than one drink per day, 9% consumed more than four to five drinks per day and a majority had not consumed alcohol in the preceding month [Graph 4]. About 55% of study participants consumed foods/drinks containing refined sugar and about 41% consumed fresh fruits [Graph 5].

Table 1: Reason for last visit to dentist among those who have visited a dentist

| Variable                          | % (n) |
|----------------------------------|-------|
| Ever visited a dentist for any problem |       |
| No                               | 47 (46) |
| Yes                              | 53 (52) |
| If Yes, (n=52) Consultation      | 69.23 (36) |
| Pain/trouble with teeth, gums or mouth | 26.92 (14) |
| Treatment or follow up treatment | 0     |
| Routine check-up/treatment       | 3.85 (2) |
| Don’t know/don’t remember        | 0     |

n=Number of Frequency, % = Percentage
The present cross-sectional study was conducted to determine oral health-related knowledge and practice. A total of 98 transgenders participated and filled the questionnaire which was designed by WHO in 2013. The questionnaire was translated to local language for better comprehension and ease of understanding. Permission was taken from the director of Sahodaran Community Oriented Healthy Development Society (SOCHD) to conduct the survey.

The education level of study participants was found to be good since about 28% were graduates and post-graduates, another 28% had completed their secondary schooling and 16.3% had completed their high school. This in contrast to a study conducted among eunuchs in Bhopal where majority of eunuchs were illiterate.\[7\] It was also observed that majority of transgenders brushed their teeth (once a day – 57.47%; twice a day – 23.14%) that was similar to a study conducted among eunuchs from Central Gujarat and Bhopal.\[7,8\] This increased prevalence of cleaning their teeth using toothbrush can be anticipated since more than 72% of study participants had their education level above high school.

Visiting a dentist regularly is often regarded as a preventive dental behaviour. In the present study, about 53% of transgenders visited a dentist. It was interesting to observe that a sizeable proportion of transgenders visited a dentist on ‘consultation’ followed by toothache/problem with gums. Since toothache is driving factor to visit a dentist, the observation in the present study highlights the awareness of transgenders towards their oral health, irrespective of their social limitations. Nevertheless, the word ‘consultation’ should be used with caution, since we are unaware whether, transgenders visited a dentists’ or were they provided dental services as a part of social project. In addition, it was also observed that more than

### Table 2: Percentage of study participants last received dental care

| Variable                        | % (n)   |
|---------------------------------|---------|
| <6 months                       | 7.14 (7)|
| 6-12 months                     | 5.1 (5) |
| more than 1 year but <2 years   | 5.1 (5) |
| 2 years or more but <5 years    | 17.35 (17)|
| 5 years or more                 | 14.29 (14)|
| Never received dental care      | 51.02 (50)|

\[n\] = Number of Frequency, % = Percentage

### Graph 1: Percentage of study participants by level of education completed

### Graph 2: Percentage of study participants according to their tooth brushing habits

### Graph 3: Frequency of consumption of various types of tobacco

**Discussion**

The present cross-sectional study was conducted to determine oral health-related knowledge and practice. A total of 98 transgenders participated and filled the questionnaire which was designed by WHO in 2013. The questionnaire was translated to local language for better comprehension and ease
50% of transgenders had never received any treatment and/or dental care in any form.

Transgenders are under stress and often resort to tobacco and alcohol possibly to forget their daily experiences. The present study also reported the consumption of chewing tobacco by 31% and a majority of transgenders used smoking or smokeless form of tobacco. In addition, about 27% reportedly consumed alcohol ranging from one drink to 4–5 drinks per day. Similar results from previous studies have also reported higher prevalence of both tobacco and alcohol consumption among transgenders that may adversely affect their oral health status. This may be due to the psychosocial stress, lack of awareness on the ill effects of these habits and limited/no sources of information on oral health. Given that we did not make any attempt to elicit their occupation, we have not discussed work related stress in the present study. Exploring use of tobacco and alcohol among transgender population is of vital public health importance, since they are at a disparate risk associated with negative health outcomes associated with tobacco and greater secondary harm following alcohol consumption.

The present study also emphasized the frequency of sugar exposure that was slightly high. The consumption of foods/drinks containing refined sugar was observed in more than 50% of study participants. This can be a major risk factor for development of tooth decay and given the low socioeconomic status and associated factors like not visiting a dentist may result in increased burden of oral diseases among transgenders.

Despite growing interest and attention, research work on transgenders have methodological challenges. Foremost, it is difficult to identify transgenders and therefore, we had to approach transgender population through SOCHD. Second, since these communities are hidden from the society there is no sampling frame and there is a tendency of unreliable responses and/or refusal to cooperate to protect their privacy. Therefore, we attempted a different sampling technique called as ‘snowball sampling’. Third, we had limited data/studies to compare our findings and we neither made any attempt to determine their occupation nor tried to establish any association with any variable.

There is a need to encourage regional dental associations and/or dental institutions to create awareness amongst transgenders regarding their oral health. It is well known that ‘Oral health is the mirror to systemic health’. Since oral health is largely neglected among the present cohort, the role of general physicians became more important due to the utilization of general health services more when compared to oral health services. The general physicians can share an equal responsibility for motivating or educating them, the importance of oral health care and also provide instructions to oral hygiene.

The need of the hour is to plan oral health programs to provide optimum oral health care (promotive, preventive and curative) that is customized for transgenders as the target populations.

**Conclusion**

It can be concluded that majority of transgenders brushed their teeth, more than 50% did not receive any dental treatment, 55% had higher frequency of sugar exposure and a higher prevalence of tobacco and alcohol related habits was observed in the present study.

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**Ethical clearance**

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Conflicts of interest
There are no conflicts of interest.

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