Assessment of association between dental neglect and oral health status among young adults

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Abstract
Objectives: We aim at outlining a public health approach to assess oral health status, reasons of dental neglect and analyse its correlation.

Methods: A descriptive cross sectional study was conducted at Mahatma Gandhi Mission Dental College & Hospital. 500 patients within the age group of 18-24 years willing to give consent and participate were involved in the survey. Patient survey and information form were used to assess dental behaviour and status. Results from screening exams, patient information forms were recorded.

Results: 258 males and 242 females with a mean age of 21.29 years participated in the research study. Of the total study population a total of 16.4% reported to be doubtful if they brush their teeth as well as they should, while 5.2% where definitely sure that they are not brushing as expected to maintain optimum dental health. But at the same time 88.6% were considered dental health important.

Conclusion: If appropriate awareness, education and self-training is incorporated amongst young adults there is a high probability of averting dental decay amongst the subject population.

Keywords: Dental neglect, oral health

Introduction
Despite the awareness and apprehension that dental decay is averible, it remains the most common paediatric chronic disease [1]. Disparities in dental visits continues to be affected by age, family income, family size and general educational standards [2, 3]. There could be various risk factors affecting the dental caries in adolescents, namely fewer dental visits, previous dental caries, lack of access to information/education, dental fatalism or even the perception that tooth decay is inevitable [4, 5].

Compromised or deteriorated oral health status not only affects a youngster’s ability to eat or chew but also affects their self-confidence and academic/professional achievements [6, 7]. Published literature and documentation emphasizes on the importance of dental health towards maintaining the overall health disparity [8] and alsospakes about importance of professional and home dental care [2]. A descriptive cross sectional study of young adults reporting to a dental hospital has great potential in addressing the associations of the factors correlating dental neglect and oral health status.

Methods
Ethical clearance was granted by Mahatma Gandhi Mission Dental College and Hospital, as well as prior permission was seeked from the Head of Department- Out Patient’s Department of the dental unit.

Inclusion criteria for the research was set to patients willing to consent and participate in the study within the age group of 18-24 years. Patients not within the designed age group and those who were unwilling to participate were excluded.

Components of the study included an oral examination to report the oral health status using the WHO oral health assessment form 2013, self-reported oral health and socio economic status questionnaire.

To establish unvarying and orderly oral health examination result, the inspection and diagnosis was carried out by a single examiner throughout the study.

Statistical analysis was performed using SPSS 12 version 16.0 software on the data collected during the research.
Results
We conducted the examination and research survey on the 500 patients. The study population was selected on random basis.
258 males and 242 females were reported to have participated in the study which marked about 51.6% and 48.4% respectively.

Table 1: Demographic characteristics of the study participants (N=500)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sub-groups</th>
<th>n(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>258(51.6)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>242(48.4)</td>
</tr>
</tbody>
</table>

Mean age: 21.29 (1.7)

With the study population only ranging between the ages of 18-24, 21.29 years was recorded as the mean age of the study population.

In the process as the number of male and female population was approximately same, it gave a better chance to compare the results on basis of the participant gender.

The questions asked in the survey were as follows:

1. I keep up my home dental care.
2. I receive the dental care I should
3. I need dental care, but I put it off
4. I brush as well as I should.
5. I control snacking between meals as well as I should.
6. I consider my dental health to be important.

Fig 1: Demographic characteristics of the study participants (N=500)

Fig 2: Distribution of the study population based on the scores of dental neglect scale
The responses were recorded as:
1. Definitely Yes
2. Yes
3. May be
4. No
5. Definitely No

Thorough examinations of the responses reflected that young adults do consider dental health important and a majority of about 445 participants also agreed to keep up their home dental care.

17.2% of the study population find it difficult to attend the dental care they should. Also 6.4% agree to put off dental treatments due to various circumstances, such as lack of knowledge, resources and also financial restraints.

One important finding has been that 24% of the study population do confess that snacking between meals has been an issue and have addressed the same.

The figure suggests the prevalence of an overall high level of dental neglect being observed by males when compared to female population.

On the contrary, female show higher level negligence when it came to avoiding dental treatments.

Discussion

Published literature on dental neglect and its effect on the oral health status of young adults in India is scarce. This study was thus conducted with an aim of assessing the oral health status with special emphasis on dental neglect and the various factors associated with dental neglect specifically amongst young adults.

This study highlighted remarkable prevalence of dental knowledge and the zest of maintaining oral health status amongst the young adults who participated in our study.

The study unveiled that the young adults claim to be unsure if they use the appropriate brushing technique as required to maintain the oral health standards in contrast to the study conducted by Coloman M et al. [2]. In this study it was observed that people are neglectful of using professional dental health care in even situations of primary necessity. The factors that could be responsible for inadequate dental health education could be various social disparities such as family income, family size and general educational standards or lack of access to newer and improved dental care products [3].

3.6% of the study population agreed to the fact that they definitely put off the dental treatment that they require and about a 23.2% of the study population agreed to delay their dental treatment. This found results are quite similar to the results found by Coolidge T et al. [9]. The study stated that there was a significant high Dental neglect score found amongst adolescents with visible caries who had not seen their dentist or had their regular dental check-up for last three years. Thus the study emphasized on two important and essential factors that needs to be equally considered while measuring the dental neglect score-The home care and the professional care [9].

The study has shown similarity in the context of higher dental neglect prevalence shown by male amongst study population with the study conducted by Thompson W M et al. and Locker D et al. [10]. Our study further states that female population tend to neglect professional dental care to a slightly more extent when compared to the male population by 0.11 SD [10].

Various lifestyle diseases are closely related to neglectful oral health thus it is extremely important to consider the wider determinants responsible in maintaining the oral health care. Oral health must be seen in the context of population health approach. Working in collaboration with various organizations such as; Government bodies, Youth Support groups and Public Health forums towards identifying the various withholding factors as well as the required steps and expected gains will improve the oral health of the overall population.

Conclusion

Our study assessing the prevalence of dental neglect among young adults distinctly identifies that the representative study population definitely understands and considers oral and dental health critical as well as vital. The study also recognizes the need to design education and training to assist young individuals in perceiving the importance of maintaining the desired dental and oral health.
Another important uncovering has been the presence and pervasiveness of unhealthy snacking habits between meals, alarming towards dental caries and oral imparities if left unattended.

Recommendation
As the study drives attention towards an alarming situation of inculcating education and the habit of looking after and maintaining oral health among young adults, it clearly indicates the need for special attention by Public health bodies, Oral health professional alongside the support of Government to meet the dental health needs.

Programs must be designed to provide preventive as well as curative treatments that is easily accessible to all the young adults.

Health promotion camps emphasizing on the various consequences dental health could have over the general wellbeing of an individual can prove beneficial to attract young adults towards the importance of maintaining dental health.

Periodic evaluation and improvisation must be done to scrutinize the impact and success of the programs.

References