ORIGINAL ARTICLE
pISSN 0976 3325 | eISSN 2229 6816
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www.njcmindia.org

CULTURAL AND SOCIOECONOMIC BARRIERS IN UTILIZATION OF DENTAL SERVICES: A CROSS SECTIONAL QUESTIONNAIRE BASED STUDY

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Financial Support: None declared
Conflict of Interest: None declared

How to cite this article:
Patel KH, Nair VS, Kalra DD, Shetty V. Cultural and Socioeconomic Barriers in Utilization of Dental Services: A Cross Sectional Questionnaire Based Study. Ntl J Community Med 2016; 7(10):807-810.

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Date of Submission: 11-05-16
Date of Acceptance: 09-10-16
Date of Publication: 31-10-16

ABSTRACT

Introduction: In our society, the psycho-social attitude of many people is directly or indirectly responsible for failure in approaching and accepting the dental treatment. This study will help in implicating changes in the current mindset of the society towards oral health.

Material and Methods: A questionnaire including two sections will be administered to patients reporting to the Out Patient Department of the institute. Section A including demographic data and Section B containing 20 simple closed ended questions which will assess the general perspective and beliefs of the patients towards oral health.

Results: A total of 450 questionnaires were distributed, out of which 404 were filled, returned and analyzed (response rate of 89.77%). Out of the 404 respondents, 232(57.4%) were males and 172(42.6%) females. The mean age of the respondents was 32.11±11.66 (range 13-70 years). The results highlighted that the people belonging to the lower socio-economic groups (Grade III, IV and V) according to the Kuppuswamy scale were more reluctant to get dental treatment due to cultural beliefs, myths and lack of knowledge about oral health care.

Conclusion: This study helps us understand the socioeconomic barriers in accessing dental treatment. Especially help us improve oral health in individuals belonging to lower socioeconomic groups.

Key words: Barriers, Dentistry, Kuppuswamy scale, Social medicine, Oral health, Oral Surgery

INTRODUCTION

"Belief" is a mental representation, of a sentient being's attitude towards the likelihood or truth of something and "Perspective" is a particular attitude towards or a way of regarding something.

Given the importance of good oral health, it is important to understand one's oral health knowledge and behavior, to identify barriers to accessing oral health care. Awareness about oral health care has improved over the years but unfortunately, it has hit rock bottom due to cultural beliefs, myths and low socio-economic status in certain strata of our society.

Cultural beliefs, values and low socio-economic status are often implicated as cause of oral health disparities, yet little can be found in dental literature that is not epidemiological in nature. In other words, it elaborates the oral health disparities rather than identifying specific beliefs and social status of different groups.

India being the country having great cultural diversity, its influence contributes and plays an inte-

gral part in the shaping and developing good oral hygiene practice. In many cultures the esthetic appearance of teeth may be important, but having "healthy" teeth and gums is not related to the appearance in a direct way.

Health care is a cultural construct arising from beliefs about the nature of disease and the human body, and it follows that cultural issues are hindrance to the delivery of effective preventive care and illness intervention.

Unlike previous studies conducted. [1-3] , this study would not only correlate beliefs and myths towards oral health care, but also check the influence of the socio-economic status of an individual to his/her oral health knowledge.

MATERIALS AND METHODS

A written informed consent was obtained from the patients participating in the survey, and necessary permissions were taken from the Institutional Research Board where the study was conducted. The questionnaires were distributed on a one on one basis and collected after a period of 10 minutes.

A cross-sectional questionnaire based study was carried out to assess the prevalence of beliefs and general perspective towards oral health care among the study participants and to correlate this to their socio-economic status.

The study population comprised of all the patients reporting to the outpatient department during the period, April 2016 to June 2016.

Data collection was done using a self-administered questionnaire. Before using the questionnaire for the survey it was pilot tested on 50 participants and necessary modifications were done according to the difficulties faced during the pilot study. This questionnaire was framed by the authors on the basis of other studies and their experience. The questionnaire was divided into two sections: Section A with demographic data which included the Kuppuswamy scale[4] for recording the socio-economic status of the participants and Section B with questions about beliefs and myths towards oral health care and the influence of the socio-economic status of an individual to his/her oral health knowledge. Kuppuswamy scale (devised[5] in 1976 and modified [4] in 2003) divided the study population into five categories namely; 1. Upper class, 2. Upper-middle class, 3. Lower-middle class, 4.Upper-lower class and 5. Lower class. Section B constituted of total 20 closed ended questions with dichotomous 'yes' or 'no' responses. A 'yes' response denoted a negative attitude while a 'no' response denoted a positive attitude towards oral health care.

Statistical analysis: Data were compiled on MS office Excel sheet (version 2010) and subjected to statistical analysis using Statistical Package for Social Sciences (SPSS version 22.0, Chicago IL, USA). Chi – square correlated the frequency of dependent variable with independent variable (Socioeconomic status). $P < 0.05$ was considered to be statistically significant, thus giving a 95% of the confidence level to the study.

RESULTS

A total of 450 questionnaires were distributed, out of which 404 were filled, returned and analyzed (response rate of 89.77%). Out of the 404 respondents, 232 (57.4%) were males and 172 (42.6%) females. The mean age of the respondents was 32.11±11.66 (range 13-70 years).

Socio-economic status of the participants was determined by using the Kuppuswamy scale and participants were categorized into 5.

But it was noted that none of the participants were from the lower class (V), which can be attributed to various barriers in utilization of dental services by people from this class. Numbers of participants from each class are as in table 1.

Table 1: **Number of Participants from each category of Kuppuswamy's socioeconomic scale**

Kuppuswapy Grade	Participants (n=404) (%)
Grade I	57 (14.10)
Grade II	106 (26.23)
Grade III	93 (23.01)
Grade IV	148 (36.63)
Grade V	0 (0)

The responses to various questions (Yes/No) are as shown in table 2. A significant difference in the responses was noted to items like "I prefer going to a chemist for medication first rather than the dentist" ($p = 0.000$), "I will go to the dentist when I can no longer bear the pain" ($p = 0.027$) and "I prefer not going alone to the dentist as I am afraid of the treatment" ($p = 0.009$) with greater participants from the lower socio economical groups (Grade III and IV) agreeing to the statements. It was noted that participants from the higher socio economical group (Grade I) agreed on the point that, if the dental treatment hurts, then the dentist is not well trained ($p = 0.002$).

Out of all the participants 35% and 61.32% feel that multiple dental visits are not needed and that dental treatment is very expensive respectively. Respondents from the Grade III and IV group were of the opinion that loss of vision can occur after ex-

traction of upper teeth (p= 0.003) and that once teeth start paining it cannot be saved (p= 0.011). Awareness about paediatric care in dentistry was sparse among participants from the lower socio economical groups. Likewise, an alarming 49% and 68% of the participants felt that general medical conditions have no relation with dental procedures and that no matter how careful we are about teeth, they will be lost someday respectively.

Table 2: Comparison of the response by participants belonging to different categories of Kuppuswamy socioeconomic scale

Items	Kuppuswamy Grade[5] (Participants Responded 'Yes")				
	Grade I (n=57)	Grade II (n=106)	Grade III (n=93)	Grade IV (n=148)	p
I prefer going to a chemist for medication first rather than the dentist	3 (5.26)	16 (15.09)	30 (32.26)	32 (21.62)	0.000*
I will go to the dentist when I can no longer bear the pain	29 (50.87)	72 (67.92)	63 (67.74)	108 (72.97)	0.027*
I prefer not going alone to the dentist as I am afraid of the treatment	5 (8.77)	13 (12.26)	17 (18.28)	38 (25.68)	0.009*
Dental pain must subside as soon as I take medication	38 (66.66)	65 (61.32)	65 (69.89)	100 (67.57)	0.61
Before going to a dentist, I would prefer a home remedy	23 (40.35)	36 (33.98)	42 (45.16)	34 (22.97)	0.003*
If the dental treatment hurts, then the dentist is not well trained	25 (43.86)	18 (16.98)	28 (30.11)	37 (25)	0.002*
Multiple dental appointments are not needed	14 (24.56)	40 (37.74)	31 (33.33)	60 (40.54)	0.172
Dental treatment is very expensive	39 (5.26)	61 (57.55)	55 (59.14)	93 (62.84)	0.536
Removal of upper tooth leads to loss of vision	12 (21.05)	23 (21.70)	30 (32.26)	61 (41.22)	0.003*
Cleaning teeth leads to loosening of teeth	7 (12.28)	14 (13.21)	23 (24.73)	34 (22.97)	0.061
Tooth cannot be saved once it starts hurting	4 (7.017)	19 (17.92)	23 (24.73)	40 (27.03)	0.0111*
No matter how careful we are, there will be loss of teeth after a certain age	39 (68.42)	67 (63.21)	64 (68.82)	107 (72.30)	0.499
Tooth ache is reduced by placing cloves/tobacco (mishri) at that site	20 (35.09)	33 (31.13)	38 (40.86)	54 (36.49)	0.556
Application of balm/heat help to reduce dental pain /swelling	12 (21.05)	15 (14.15)	24 (25.81)	29 (19.92)	0.231
No need to take care of baby teeth as they are going to fall out	9 (15.79)	43 (40.57)	39 (41.94)	78 (52.70)	0.000*
When gums bleed, better not to brush	15 (26.32)	17 (16.04)	24 (25.81)	28 (18.92)	0.236
One set of dentures will last a lifetime and needs no replacement	9 (15.79)	20 (18.87)	24 (25.81)	37 (25)	0.334
If there is no problem with teeth, then you don't have to visit the dentist	35 (61.40)	45 (42.45)	46 (49.46)	87 (58.78)	0.032*
A child never needs cleaning of milk teeth	14 (24.56)	40 (37.74)	36 (38.71)	71 (47.97)	0.020*
General medical conditions have no relation with dental procedures	30 (52.63)	48 (45.28)	43 (46.24)	77 (52.03)	0.634

Figure in parenthesis indicate percentage; * P (probability value) <0.05 that is, statistically significant results

DISCUSSION

Health behavior is a broad concept implying actions undertaken by people which have positive or negative consequences to health. Cultural beliefs about the source of illness and correspondingly appropriate forms of treatment may be interpreted as a barrier to professional health care. Social factors are involved not just in the etiology of oral problems, they are also implicated in the very process by which those problems come to be defined and seen as socially significant. Unlike studies which were conducted previously [1-3], this study aims at determining the correlation of socioeconomic status and oral health care as well.

The accessibility of people to professional oral health care in the area of the institute where the study was conducted includes; one private dental college, one satellite dental center in private medical college and multiple private dental clinics. It should be noted that the dental college and satellite center provide oral health care free of cost. Despite of having close proximity to free dental services, it is pertinent to evaluate how an individual's socioeconomic status, attitude and beliefs impact the utilization of and compliance with dental care.

Doshi et al, 2014[1] in a similar study did not consider the socioeconomic status as a factor, considering most of the participants belonged to the same socioeconomic class. According to a few other authors (Sogi and Bhaskar, 2002; Shah and Sundaram, 2004; Elani et al, 2012) [6-8] the impact of society on oral health care cannot be ruled out. Our study focused mainly on the socioeconomic class of the respondent as it would give us an understanding of the influence it causes on the attitude towards oral health care.

Astonishingly, it was noted that none of the participants were from the lower class (V), which can be attributed to various barriers in utilization of dental services by people from this class. This proposes that health inequalities are present where the healthy move up the social hierarchy and less healthy move down. They are the ones who reveal consistent neglect towards oral health care and they require careful understanding if they are to receive treatment in public health facilities. It was carefully noted that the answer to the items like "I prefer going to a chemist for medication first rather than the dentist", "I will go to the dentist when I can no longer bear the pain" and "I prefer not going alone to the dentist as I am afraid of the treatment" with greater participants from the lower socio economical groups (Grade III and IV) agreeing to the statements. This could be as a last resort after all the individual efforts have failed to cure

the pain with traditional practices or with over-the-counter available medication. This is also in a way challenging the dental health care professionals to salvage something from almost hopeless situation. People from the lower socio economical groups do not like to be outnumbered by the number of dental health care professionals and are afraid of being at total mercy of the practitioner. Therefore, there is reluctance to get treatment done alone.

Least positive response was noted for the higher socio economical group (Grade I) on the item that, if the dental treatment hurts, then the dentist is not well trained. This group has a general feeling that dental treatment should be painless and if it hurts, the practitioner does not know what he/she is doing. Respondents from the Grade III and IV group were of the opinion that loss of vision can occur after extraction of upper teeth and that once teeth start paining it cannot be saved. Fear of the unknown is a natural human tendency which is accentuated with the lower socio economical groups (Grade III and IV), since there are so many things that are unknown to them. Also this demonstrates their old school beliefs and myths about dentistry which is still pertinent.

Out of all the participants 68% and 61.32% feel that no matter how careful we are about teeth, they will be lost someday and that dental treatment is very expensive respectively. There is a feeling that despite competent and conscious personal and professional care, the ultimate loss of teeth is one of the natural vicissitudes of life. Due to which most of the people don't find it important to spend money for dental treatments or find them expensive. Also 35% feel that multiple dental visits are not needed. Appointments of any kind have never been an important part of the people belonging to lower socio economical groups (Grade III and IV). Patience and understanding are essential in educating them to the value of keeping appointments and the cost of procedures. Also change their outlook towards fatalistic attitude. Likewise, 49% of the participants thought that general medical conditions have no relation with dental procedures. This indicated that since the dental diseases are not life threatening they have no relation with the general medical conditions. Similar results have been reported by other studies in Indian population[2]. Conscious efforts should be made by the dentist to take proper medical history to prevent any life threatening event. Also the patients should be educated about co-relationship between dental and medical conditions.

The study has certain limitations, considering the self-reporting nature of questionnaire survey, it may result in bias. Also the study was carried out in a particular area so generalizing the results would be impeded. But the consideration of socio-economic status in the study will help us to improve the delivery of oral health care among the patients. The study shall also help us understand how to approach people belonging to various socioeconomic statuses and understand their perception towards dentistry.

CONCLUSION

Within the limits of the study, the following conclusion can be drawn: In oral health care, there is a range of clearly defined actions that people carry out to maintain oral hygiene. These actions, however, strongly vary by social group and reflect powerful cultural beliefs. The people belonging to the lower socio economical groups (Grade III and IV) have the least positive responses to dentistry. Also the lack of participants from Grade V highlights their reluctance and negligence towards oral health care.

Myths and beliefs create hindrances in the effective delivery of quality preventive and corrective dental treatment. Along with promoting newer technology, it is also imperative of us to create awareness among people of the society about the myths and beliefs for as George Iles once said 'That superstitions are nothing but a premature explanation that overstays its time'

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