

Correlation of Psychological Problems Among Various Socio-Economic Groups and its Comparison Between Males and Females

Ch. Narsi Reddy¹, D. Prabu^{2*}, P. Nimmy³, Lubna Fathima⁴, V. V. Bharathwaj⁵, R. Sindhu⁶,
M. Raj Mohan⁷, Sunayana Manipal⁸

¹Undergraduate, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

²Professor and Head, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

³Postgraduate, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

⁴Senior Lecturer, Department of Public Health Dentistry, Madha Dental College and Hospital, Kundrathur, Chennai, India

^{5,6}Senior Lecturer, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

⁷Reader, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

⁸Associate Professor, Jawaharlal Nehru Institute of Dental Sciences, Imphal-East, Manipur, India

Abstract: Background: Psychology of a person plays an essential role in the outcome of the treatment, whether it is successful or failure. This study aims to find the correlation of psychological problems among males and females who visit the dental hospital. **Materials and Method:** A cross-sectional study was conducted among the individuals visiting SRM Dental College and Hospital. The study was conducted with the help of nine close-ended questions, including aesthetic concerns, social anxiety, and self-confidence. A total of 105 individuals, 55 males and 50 females were included in the study using convenience sampling. Statistical analysis was performed by SPSS software, descriptive statistics were performed to find the age distribution, gender and socioeconomic status and chi-square test was performed to find an association between the males and females regarding the psychological problem. **Result:** Among the 105 individuals, almost 52% of females were satisfied with the appearance of teeth, whereas 48% were not satisfied by the appearance of teeth. Among the males, 63.6% were satisfied with the appearance of teeth and 36.4% were not satisfied by the appearance of teeth. Among the females, almost 58% of individuals were afraid of offensive remarks about their teeth and 42% were not afraid. Among the males, almost 52.7% of individuals were afraid of offensive remarks about their teeth and 47.3% were not afraid. P-value <0.05 were calculated to find the association between the males and females. **Conclusion:** Psychological behaviour of an individual is essential to take up treatment. In the study findings, positive association were found between the males and females in the opinion of afraid of taking offensive comments from the individuals, and they take measures to make their teeth look better. No positive association was found among the other questionnaire recorded.

Keywords: Psychology, problems, esthetic concern, social anxiety, self-confidence.

1. Introduction

A good face is a letter of recommendation. From years it has been conceptualized that the first impact a person makes is

because of his appearance, which lasts for long time. Media projected perfect appearance had a substantial effect on the behaviour and thinking of our beauty-conscious society. And it has led to an increased demand for esthetic treatment from public [1]. Dental appearance is an integral component of facial beauty. The judgments, an individual, makes concerning the personal characteristics of others, can be affected by dental appearance [2]. Good dental impressions are thought to be a requirement of prestigious occupations among some professional groups. Established norms for dental and facial appearance do not vary widely among industrialized nations, and extreme deviations are viewed as unacceptable [3].

Placement of a restoration, which improves dental appearance, results in a positive effect on a patient's self-esteem and quality of life [4]. Oral health is not only the absence of oral disease and dysfunction, but it includes its influence on the subject's social life and Dentofacial self-confidence. This is in accordance with the WHO's definition of quality of life.

Concerns in relation to esthetics are more present in modern society [5] and have caused an increased demand for aesthetic treatments [6]. Facial aesthetics has been associated with facial and smile harmony. Smile harmony is dependent on several factors such as tooth color, shape, size and position; lip position allowing tooth visibility and gingival disposition [7]. The lack of a proportional and beautiful smile could impact the self-esteem of a person, influencing the psychological and physical health [8]. This situation can affect the socio-emotional aspects of well-being and may influence social interaction [9].

Studies have found that satisfaction with dental appearance is greatly influenced by tooth color and malocclusion. Those parameters could be affected by psychosocial, cultural and sociodemographic factors. White teeth have been associated with higher scores of social competence, intellectual ability, psychological balance and social status [10] and may impact the

*Corresponding author: researchphdsrm@gmail.com

quality of life of the subject [11]. In adolescence, facial attractiveness is an important social norm among adolescent groups, the dental appearance being the first factor related to attractiveness [12]. The social interactions with negative self-concept and peer-group acceptance have been associated with unacceptable dental appearance [13]. Among adolescents, studies have shown that girls emphasize attractiveness [14]. Age was found to influence the satisfaction with dental appearance, and older individuals tend to be more satisfied with dental appearance than the younger ones. The presence of untreated caries, stained anterior restorations and missing teeth can lead to dissatisfaction with dental appearance.

It seems that individuals with higher socioeconomic level are more concerned about their attractiveness [15] and with an aesthetic appearance, and more inclined to undergo aesthetic treatments, like orthodontic appliances, compared with those in the deprived situation. Moreover, studies reported that the performance of dental treatments, such as orthodontics and tooth bleaching, could improve the satisfaction with dental appearance, perception of attractiveness and the quality of life of patients.

2. Materials and Method

A cross-sectional study was conducted among the individual who visits the SRM Dental College and Hospital to assess their psychological status in Tamil Nadu, India. The research was conducted among males and females visiting Dental college and hospital. According to convenience sampling, the questionnaire-based cross-sectional study was conducted for four weeks (September 2019-October 2019) among 105 individuals out of which 50 females and 55 males participated in the study. Permission and ethical clearance were obtained from the Department of Public Health Dentistry, SRM dental college, Ramapuram. Since it is a questionnaire-based study, verbal consent was taken from the participants. The questions were validated from the experts in the field of psychology before passing the question to the participants. The inclusion criteria included all the individuals, including patients, willing to participate in the study. The exclusion criteria include people not willing to participate in the study. A total set of 9 closed-ended questions divided into three groups was used to collect data for the study. The questionnaire consisting of questions such as aesthetic concerns, social anxiety, and self-confidence on how it affects them psychologically was given to the patients and data were collected. Statistical analysis was performed using SPSS version 25.0, (SPSS Inc, Illinois, Chicago, USA). Descriptive statistics were performed to know the gender distribution among the study population, and among all the

questionnaire asked regarding the survey. Inferential statistics were performed, chi-square test was used to analyse the association between the perception of male and female regarding the aesthetic concerns, social anxiety, and self-confidence on how it affects them psychologically the individual.

3. Results

Table 1 shows the distribution of demographic details among the study participants in the study. The age distribution among the study participants showed that higher percentages of participants (37.1%) were seen in the age group of 31-45 years group and the lesser percentage of participants (26.8) were seen in the age group of 46-60 years group. The socioeconomic status of participants showed that 39.1% of participants were upper-middle class which was higher and least were under the lower class.

Table 1
Distribution of demographic details among the study participants

Group	Frequency	Percentage
Age group		
16-30	38	36.1
31-45	39	37.1
46-60	28	26.8
Socioeconomic status		
Upper class	27	25.7
Upper middle class	41	39.1
Lower middle class	25	23.8
Upper lower	0	0
Lower	12	0

Table 2
Age distribution among the males and females of study participants

Age group	Female distribution		Male distribution	
	Number	Percentage	Number	Percentage
16-30	20	40.00	18	32.7
31-45	20	40.00	19	34.5
46-60	10	20.00	18	32.7
TOTAL	50	100.00	55	100.00

Table 3
Distribution of socioeconomic status among the males and females of study participants

Socioeconomic status	Female distribution		Male distribution	
	Number	Percentage	Number	Percentage
Upper class	12	24.00	15	27.3
Upper middle class	18	36.00	23	41.8
Lower middle class	12	24.00	13	23.6
Lower class	8	16.00	4	7.3
Total	50	100.00	55	100.00

Table 2 shows the age distribution among males and females included in the study. Higher percentages (40%) of females were seen in the age group of 16-30 and 31-45 years group.

Table 4
Dental self-confidence questionnaire among the study participant

Dental Self Confidence		Female		Male		P value
		N	%	N	%	
I'm satisfied with the appearance of my teeth	Yes	26	52	35	63.6	0.42
	No	24	48	20	36.4	
Others find my teeth attractive	yes	26	52	29	52.7	0.16
	No	24	48	26	47.3	
Tooth positioning is satisfactory	Yes	25	50	28	50.9	1.00
	No	25	50	27	49.1	

Table 5
Distribution of questionnaire among the study participants

Social Impact		Female		Male		P value
		N	%	N	%	
I hold myself back when I smile	Yes	29	58	28	50.9	0.94
	No	21	42	27	49.1	
I am afraid other people might make offensive remarks about my teeth	Yes	29	58	29	52.7	0.01*
	No	21	42	26	47.3	
I sometimes avoid social interactions	Yes	26	52	24	43.6	0.74
	No	24	48	31	56.4	

Table 6
Distribution of questionnaire among the study participants

Aesthetic concern		Female		Male		P value
		N	%	N	%	
I don't like to see my teeth in photos	Yes	27	54	25	45.5	0.81
	No	23	46	30	54.5	
I take extra measures to make my teeth look better	Yes	29	58	28	50.9	0.007*
	No	21	42	27	49.1	
I am always concerned about my appearance	Yes	27	54	29	52.7	0.093
	No	23	46	26	47.3	

In males, higher percentages (34.5%) of age group were seen in 31-45 years group.

Table 3 shows the distribution of socioeconomic status among the males and females. Among the females, higher percentages (36%) of participants were under upper middle class. Among the males, higher percentages (41.8%) of participants were under upper middle class.

Table 4 shows the distribution of dental self-confidence questionnaire among the males and females included in the study. Association between the males and females were found and p-value <0.05 was considered to be statistically significant.

Table 5 shows the distribution of the social impact questionnaire among males and females included in the study. Association between the males and females were found, and p-value <0.05 was considered to be statistically significant.

Table 6 shows the distribution of aesthetic concern questionnaire among the males and females included in the study. Association between the males and females were found, and p-value <0.05 was considered to be statistically significant.

percentage was found in lower-class among the males.

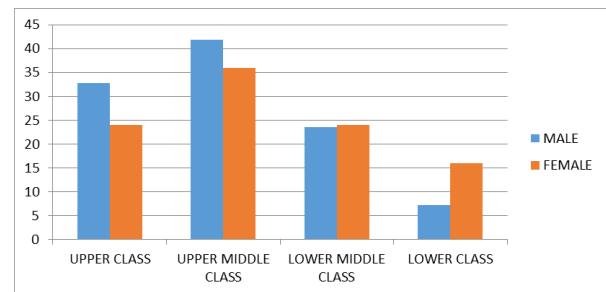


Fig. 2. Gender distribution on different socioeconomic status among the study participant

4. Discussion

Psychology of the patient is very important for the success of treatment. This study was an attempt to assess the psychological problems among the patients visiting dental hospital. The study done by Alexander et al [16] had discussed about the psychological anxiety and depression and found that males had a comparatively lesser psychological problem than females, especially women's below 46 years. Humphris et al [17] in his study discussed about the psychological anxiety among the patient before and after the treatment and showed that women's had higher psychological anxiety than the men. In the present study, Among the females, 52% were satisfied about the appearance of teeth and 48% were not satisfied with the appearance and among the males, 63.6% were satisfied and 36.4% were not satisfied with the appearance of teeth. Various behaviour management treatments are available to treat psychologically unstable patients. Gunnila et al [18] in her study has discussed about the psychological problem encountered during the dental treatment. Maria at al [19] discussed about the aesthetic concern among the orthodontic patient by assessing the esthetic psychological questionnaire which showed that 54% of the females were concern on aesthetic psychologically when compared to males. The esthetic concern is always an essential factor pertaining to the patients visiting dental hospitals and if the esthetic concern is not satisfied, the treatment leads to failure.

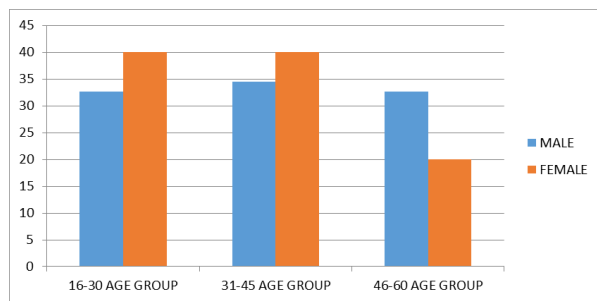


Fig. 1. Gender distribution on different age group among the study participant

Fig. 1 shows the gender distribution between different age group and shows that higher percentage of the individual were under the age group of 16-30 and 31-45 in female and least percentage of the individual were under the age group of 46-60 among the females.

Fig. 2 shows the distribution of different socioeconomic status among the study participant. Highest percentages were found in the Upper middle class among the males, and lesser

In the current study, Among the females, 52% find their teeth attractive by others, and 48% do not find their teeth attractive by others. Among the males, 52.7% see their teeth attractive by others, and 47.3% do not find their teeth attractive by others. Among the females, 50% of the individual find their tooth position satisfactory, and 50% do not find their teeth acceptable. Among the males, almost 50.9% of them found their tooth position satisfactory, and 49.1% of them do not find their tooth positioning satisfactory. Among the females, nearly 58% hold the teeth back when they smile, whereas 42% do not hold their teeth back. Among the males, almost 50.9% hold their teeth back whereas 49.1% do not hold their teeth back. Almost 58% of individuals in females and 42% in males were afraid that people might make offensive remarks about their teeth. Nearly 52% in females and 43.6% in males avoid social interaction very often. Among the females and males, almost 54% and 45.5% do not like to see their teeth in photos. Among the females, almost 58% take measure to improve the appearance of teeth, whereas in males, nearly 50.9% take measure to improve the appearance of teeth. Among the females and males, almost 54% and 52.7% of individual were concerned about the appearance. The only limitation of the current study is that convenience sampling was used to collect data; consequently the generalizability of the findings of the present study cannot be extrapolated to the general population.

5. Conclusion

Psychological behaviour is essential for the success of the treatment. In this study, psychological problems among the patients visiting dental hospital were assessed and found a P value of <0.05 which implies statistically significant difference was found between the males and females in the opinion of being afraid of taking offensive comments from the individuals and they take measures to make their teeth look better. P-value <0.05 which implies no statistical difference was obtained for association among the other questionnaire recorded in the study.

References

- [1] Morley J, Eubank J. Macro esthetic elements of smile-design. The Journal of the American Dental Association. 2001 Jan 1;132(1):39-45.
- [2] Newton JT, Prabhu N, Robinson PG. The impact of dental appearance on the appraisal of personal characteristics. International Journal of Prosthodontics. 2003 Jul 1;16(4):187-196.
- [3] Cons NC, Jenny J, Kohout FJ, Freer TJ, Eismann D. Perceptions of occlusal conditions in Australia, the German Democratic Republic and the United States of America. International dental journal. 1983 Jun;33(2):200-206.
- [4] Davis LG, Ashworth PD, Spriggs LS. Psychological effects of aesthetic dental treatment. Journal of dentistry. 1998 Sep 1;26(7):547-554.
- [5] Poonam. Dental Aesthetics and patient satisfaction, a hospital-based survey. Arch Oral Sci Res. 2011; 1: 1-13.
- [6] Singh V, Hamdan A, Rock P. The perception of dental aesthetics and orthodontic treatment need by 10-to 11-year-old children. The European Journal of Orthodontics. 2012 Oct 1;34(5):646-651.
- [7] Vandergeld P, Oosterveld P, Van Heck G, Kuijpers-Jagtman AM. Smile attractiveness: self-perception and influence on personality. The Angle Orthodontist. 2007 Sep;77(5):759-765.
- [8] Samorodnitsky-Naveh GR, Geiger SB, Levin L. Patients' satisfaction with dental esthetics. The Journal of the American Dental Association. 2007 Jun 1;138(6):805-808.
- [9] Agou S, Locker D, Muirhead V, Tompson B, Streiner DL. Does psychological well-being influence oral-health-related quality of life reports in children receiving orthodontic treatment. American journal of orthodontics and dentofacial orthopedics. 2011 Mar 1;139(3):369-377.
- [10] Kershaw S, Newton JT, Williams DM. The influence of tooth colour on the perceptions of personal characteristics among female dental patients: comparisons of unmodified, decayed and whitened teeth. British dental journal. 2008 Mar;204(5): 9-17.
- [11] Meireles SS, Goettems ML, Dantas RV, Della Bona Á, Santos IS, Demarco FF. Changes in oral health related quality of life after dental bleaching in a double-blind randomized clinical trial. Journal of dentistry. 2014 Feb 1;42(2):114-121.
- [12] Josefsson E, Lindsten R, Hallberg LR. A qualitative study of the influence of poor dental aesthetics on the lives of young adults. Acta Odontologica Scandinavica. 2010 Jan 1;68(1):19-26.
- [13] Onyiaso CO, Sanu OO. Perception of personal dental appearance in Nigerian adolescents. American journal of orthodontics and dentofacial orthopedics. 2005 Jun 1;127(6):700-706.
- [14] Boyatzis CJ, Baloff P, Durieux C. Effects of perceived attractiveness and academic success on early adolescent peer popularity. The Journal of Genetic Psychology. 1998 Sep 1;159(3):337-344.
- [15] Macintyre S, West P. Social, developmental and health correlates of 'attractiveness' in adolescence. Sociology of Health & Illness. 1991 Jun;13(2):149-167.
- [16] Zinke A, Hannig C, Berth H. Psychological distress and anxiety compared amongst dental patients-results of a cross-sectional study in 1549 adults. BMC oral health. 2019 Dec 1;19(1):27-40.
- [17] Humphris G. Dealing with highly anxious dental patients. British Dental Journal. 1999 May;186(9):458-466.
- [18] Klingberg G, Broberg AG. Dental fear/anxiety and dental behaviour management problems in children and adolescents: a review of prevalence and concomitant psychological factors. International journal of paediatric dentistry. 2007 Nov;17(6):391-406.
- [19] González MJ, Romero M, Peñacoba C. Psychosocial dental impact in adult orthodontic patients: what about health competence?. Health and quality of life outcomes. 2019 Dec 1;17(1):110-118.