



**“ORAL HEALTH RELATED QUALITY OF LIFE AMONG STUDENTS OF A
PRIVATE DENTAL COLLEGE IN KERALA**

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ABSTRACT

INTRODUCTION:The compartmentalization involved viewing the mouth separately from the rest of the body must cease because oral health affects general health by causing considerable pain and suffering and by changing what people eat, their speech and their quality of life and well being¹. Knowing dental student’s self-perceptions of oral health including OHRQOL, will provide insights that may enable better teaching method to be defined².

AIMS AND OBJECTIVES: To assess the oral health related quality of life among students of Al Azhar dental college.

MATERIALS AND METHODS:A cross sectional survey was conducted in Al Azhar Dental College during among 160 students out of which 50 were males and 110 were females, to analyze oral health related among students of Al Azhar dental college. Ethical approval was obtained from the institutional review board.

RESULT: Total OHIP was 4.5 ± 5.14 with highest subscale score seen with psychological discomfort (1.65 ± 0.80).Fortyfive percentage students reported impact on OHRQoL and the lowest reported in social handicap (1%)

CONCLUSION: Study reported statistically significant association between impact on OHRQoL with annual income of parent and SES status of the family ($p < 0.05$) OHRQoL showed statistical significant association with year of study ($p < 0.05$)

KEYWORD: Dental students, OHRQoL dental college

INTRODUCTION

The compartmentalization involved viewing the mouth separately from the rest of the body must cease because oral health affects general health by causing considerable pain and suffering and by changing what people eat, their speech and their quality of life and well being¹. Knowing dental student's self-perceptions of oral health including OHRQOL, will provide insights that may enable better teaching method to be defined². Statistically significant relationship was observed between OTDP (ultimate oral impact) and a count of non-clinical oral health indicators, respectively the intermediate levels of oral impact⁴. Oral health also has an effect on the chronic disease¹.

The concept of health involves bio-psychosocial wellbeing and oral health status can exert an influence on different aspects of quality of life¹. Despite the growing number of studies addressing this issue few studies have involved dental students as the specific study population²⁻⁴. The oral health behavior of Indian dental students has to be improved in order to serve as a positive model for their patients, families and friends⁵. Such studies allow oral health related quality of life (OHRQOL) to be analyzed among a group of individuals with intensive training in perceiving small deviations from normally as well as in how to maintain their oral health.⁶

A number of papers indicate changes in the attitudes and behavior of dental students regarding oral health as they advance in their studies always been observed⁷⁻¹³, dental students are expected to improve their health-related behavior and attitude by the end of the course¹⁴⁻¹⁵.

Furthermore, an understanding of the oral health related quality of life contributes to the development of strategies aimed at enhancing the dental curriculum and improving the education of dental students.

Thus, aim of the study was to assess OHRQoL and associated factors among Al Azhar dental college.

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MATERIALS AND METHODS

A cross sectional survey was conducted in Al Azhar Dental College during [march2018] among 60students who were chosen randomly to analyze the knowledge of management of avulsed tooth among dental students. The sample size of 160 included 50 males and 110 females. Ethical approval wasobtained from the institutional review board. A questionnaire was developed consisting of two parts: Part A – demographic data and Part B- Knowledge based questionnaire. The questions were incorporated after going through various literature related to that. All resonance gave their written consent before completing the questionnaires. Answers were received on the same day of the survey. Descriptive analysis was used to describe the percentage of responses and statistical analysis was performed using SPSS software 20.0 significant level was kept at 5%.

RESULTS

Table 1. Participant’s distribution based on the gender

OPTIONS	NUMBER	PERCENTAGE
1. MALE	50	31%
2. FEMALE	110	69%

Table 2. Participants distribution based on the year of study

OPTIONS	NUMBER	PERCENTAGE
First year	54	33
Second year	37	23
Third year	37	23
Fourth year	32	21

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Table 3- Response of the participants to the questionnaire

	Never	Hardly ever	Occasionally	Often	Very often
Q1. Have you had trouble pronouncing any words because of problems with your teeth ,mouth or dentures?	133(83%)	17(11%)	10(6%)	0(0%)	0(0%)
Q2. Have you felt that your sense of taste has worsened because of problems with your teeth , mouth or denture?	130(81%)	24(15%)	3(1.6%)	3(1.6%)	0(0%)
Q3. Have you had painful aching in your mouth?	85(53%)	32(20%)	33(21%)	7(4.4%)	3(1.6%)
Q4. Have you found it comfortable to eat any food because of problems with your teeth ,mouth or dentures?	106(66%)	13(8%)	29(18.3%)	8(5%)	8(5%)
Q5. Have you felt any self conscious because of problems with your teeth ,mouth or dentures?	81(51%)	17(11%)	45(28%)	17(8%)	0(0%)
Q6. Have you felt tense because of problems with your teeth ,mouth or dentures?	106(66%)	17(11%)	31(18.5%)	3(1.6%)	3(1.6%)
Q7. Have you felt life in general was less ,mouth or satisfying because of problems with your teeth ,mouth or denture?	117(73%)	29(20%)	8(5%)	3(1.6%)	3(1.6%)
Q8. Have you been totally unable to function because of problems with your teeth, mouth or denture?	128(80%)	21(13%)	8(5%)	3(1.6%)	0(0%)
Q9. Has your diet has been satisfactory because of problems with your teeth ,mouth or denture?	121(76%)	28(16%)	8(5%)	3(1.6%)	0(0%)
Q10. Have you had to interrupt meals because of problems with your teeth , mouth or dentures?	118(71%)	29(20%)	10(6%)	3(1.6%)	0(0%)
Q11. Have you found it difficult to relax because of problem with your teeth ,	109(68%)	26(16%)	18(11%)	7(3%)	0(0%)

mouth or dentures?					
Q12. Have you been a bit embarrassed because of problems with your teeth ,mouth or dentures?	101(63%)	21(13%)	21(13%)	11(6%)	6(3%)
Q13. Have you been a bit irritable with other people because of problems with teeth ,mouth or dentures?	106(66%)	26(16%)	19(11%)	3(1.6%)	6(3%)
Q14. Have you had difficulty doing your usual jobs because of problems with teeth ,mouth or dentures?	119(75%)	16(10%)	11(6%)	8(5%)	6(3%)

Table 4- Frequency distribution of dental students according to demographic variables

Year	Impact on OHRQoL			Chi square test P value
	No impact n(%)	Impact n (%)	Total n (%)	
First year	22(40)	32(60)	54(33)	0.001*
Second year	20(54)	17(46)	37(23)	
Third year	23(62)	14(38)	37(23)	
Fourth year	20(71)	12(29)	32(21)	
Total	85(53)	75(47)	160(100)	

***P<0.05 is statistically significant and impact of oral conditions on quality of life**

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Table 5-Frequency distribution of dental students according to academic year and impact of oral conditions on quality of life

Variables		Impact on OHRQoL			P value (chi square test)
		No impact n(%)	Impact n(%)	Total n(100%)	
Gender	MALE	22(44)	28(56)	50(31)	0.66
	FEMALE	56(51)	54(49)	110(69)	
Education of the parent	ILLITERATE	5(42)	7(58)	12(7.5)	0.26
	10 TH STD	15(33)	30(67)	45(28)	
	>10 TH STD	33(32)	70(68)	103(64.5)	
Occupation of the parent	UNSKILLED	7(47)	8(53)	15(9)	0.08
	SEMI SKILLED	26(35)	94(65)	120(75)	
	PROFESSIONAL/ SKILLED	5(20)	20(80)	25(16)	
Annual income	<25000	7(47)	8(53)	15(9)	0.02*
	25000-50000	16(14)	98(86)	114(71)	
	>50000	4(13)	27(87)	31(20)	
Socio-economic status	LOWER CLASS/LOWER MIDDLE CLASS	13(52)	12(48)	25(16)	0.001*
	MIDDLE CLASS/UPPER MIDDLE CLASS	30(27)	80(73)	110(70)	
	UPPER CLASS	5(20)	20(80)	25(16)	

Table 6-Prevalence Of Impact Of Oral Conditions On Quality Of Life And Ohip Scores

OHIP SUBSCALE	SCORE			FREQUENCY OF IMPACT ON OHRQOL
	MEAN ±SD	MINIMUM	MAXIMUM	
FUNCTIONAL LIMITATION	0.25 ±0,6	0	5	14(4.4)
PHYSICAL PAIN	1.25+1.39	0	6	72(24.0)
PSYCHOLOGICAL DISCOMFORT	1.65+1.80	0	8	113(37.7)
PHYSICAL DISABILITY	0.41+0.93	0	6	18(6.0)
PSYCHOLOGICAL DISABILITY	0.63+1.12	0	8	40(13,3)
SOCIAL DISABILITY	0.23+0.73	0	8	8(2.7)
SOCIAL HANDICAP	0.10+0.52	0	6	3(1 .0)
OHIP TOTAL	4.50+5.14	0	37	135(45.0)

Result

A study was conducted on oral health related quality of life among students of Al azhar dental college on 160 students. Out of which 69 % were females and the remaining males. Out of 160 student's majority of the, were 1st year students. Study consisted of 14 questions with options "Never, hardly ever, occasionally often and very often.

For the question "Have you had trouble pronouncing any words because of problems with your teeth, mouth or dentures",83% students answered never ,11% answered hardly ever,6% answered occasionally and none of them replied often and very often.

For the question "Have you felt any self-conscious because of problems with your teeth, mouth or dentures",51% answered never,11% answered hardly ever, 28% answered occasionally,8%often and 2% very often. (table 1)

47% of students out of 160 students reported that they have impact of oral condition on quality of life and remaining 53% reported they have no impact.

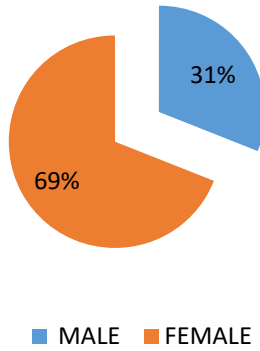
Impact of oral condition on quality of life among first year students were 60%. (table 2)

Impact of oral condition on quality of life among upper economic class was 80 %(the highest)

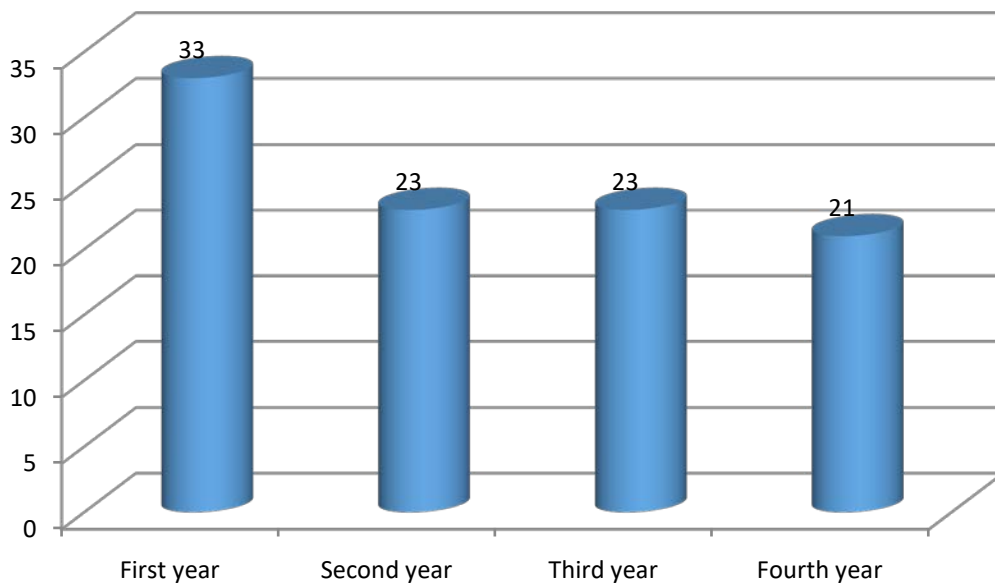
Impact of oral condition on quality of life among students of parents with education higher than 10th standard is 70 %(table 3).Independent variables like gender,education and occupation of the parent did not show any association with OHRQOL where income and SES showed significant association.

Impact of oral condition on quality of life is shown more in the form of psychological discomfort rather than other factors. (table 4)

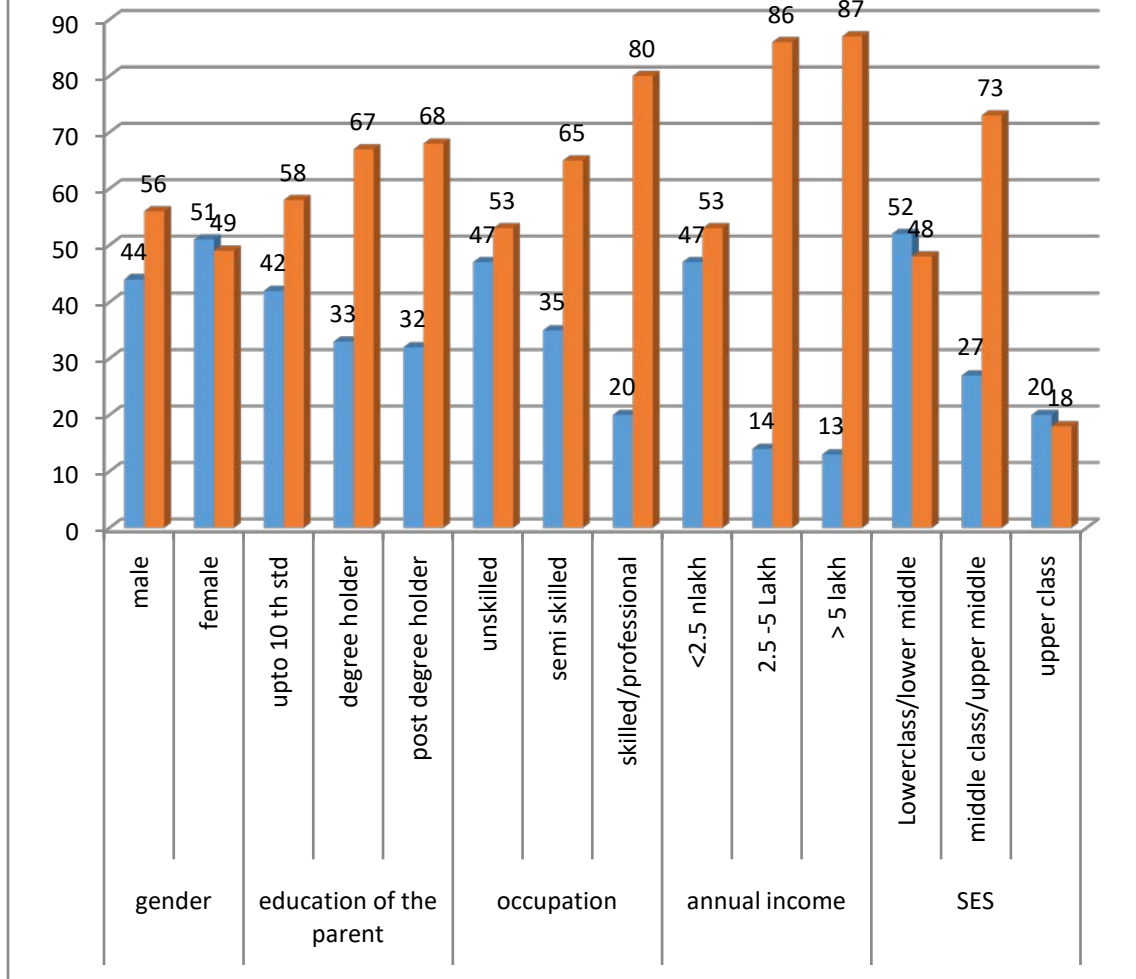
Graph 1- Distribution of participants based on gender



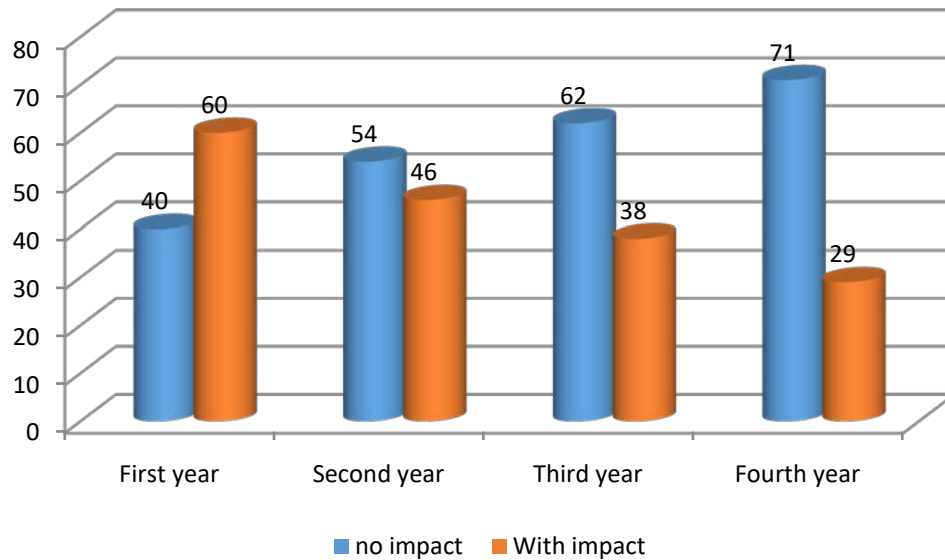
Graph 2- Distribution of the study participants based on year of study



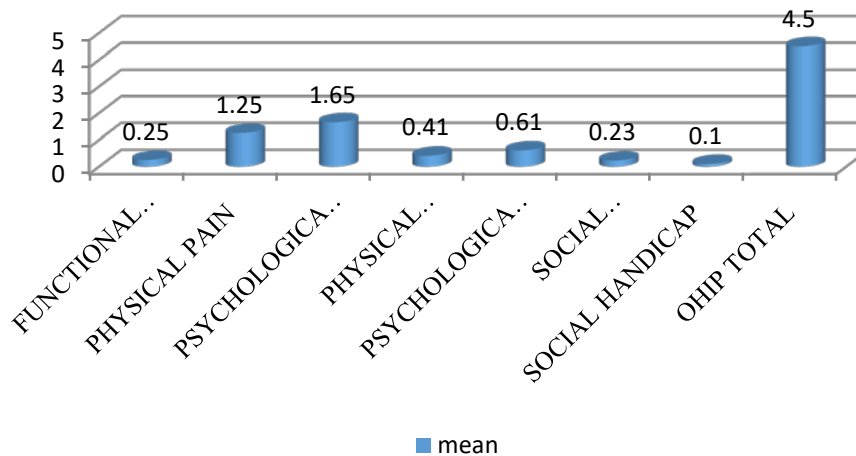
Graph 3- Distribution of participants based on the demographic variables



Graph 4- impact of OHRQoL among pthe participants



Graph 5- OHIP subscale mean value



DISCUSSION

The impact of oral health status on activities of daily living among the dental students surveyed in this study was of low intensity, but was found in nearly half of the respondents. A previous cross-sectional study involving the OHIP-14 administered to dental students in India

also found a low degree of impact of oral health status on quality of life. Two aspects are directly related to a low OHIP-14 score: low frequency or low degree of severity of oral problems and the inability of certain individuals to perceive such problems. In the present case, the second possibility may be discarded, as dental students receive intensive training in the perception of small deviations from normality.¹⁶ On the other hand, adverse oral conditions that exert considerable impact on OHRQoL in this age group, such as periodontal disease or tooth loss, have low frequency or low degree of severity, which may explain the low OHIP-14 score. Moreover, the low frequency and severity of conditions may also be influenced by care regarding oral health, which tends to be more intensive and frequent in dental students.² The impact of oral health status on activities of daily living among the dental students surveyed in this study was of low intensity but was found in nearly half of the respondents. However, one must bear in mind that this is a cross sectional study, whereas evidence of changes in behavior and perceptions would be better determined in longitudinal studies.

In this study, the subscales that most contributed to the impact on OHRQoL were psychological discomfort and physical pain, particularly the items 'felt self-conscious because of problems with mouth or teeth' and 'had painful aching in mouth'. Cross-sectional studies involving students in Pakistan and India report similar results using the OHIP-14.^{2,17} Physical pain and psychological discomfort were the most important aspects when analyzing OHRQoL with the OHIP-14.¹⁸

Indeed, events associated with pain are expected to be remembered more easily. Psychological discomfort may be associated with the level of concern dental students have regarding the appearance of their teeth and mouth, since they are encouraged to perceive and value their oral health status. On the other hand, this same training may ensure the necessary emotional control not to allow the psychological discomfort caused by oral conditions to interfere in their social relations, which may explain the low scores on the social disability and social handicap subscales. In the study by Achaya and Sangam (2008),² these were the only OHIP-14 domains for which the scores of Indian students in the fourth year of the dental course were lower than those in the first year. However, with significant difference was found between the different phases of academic education with regard to the overall OHIP-14 score ($p < 0.05$).²

Socioeconomic factors, such as low income and schooling, can affect OHRQoL.^{19,20} In this study, economic class and schooling of the family provider were associated with the impact on OHRQoL in the univariate analysis. The identification of the impact of one's own dental experience with regard to OHRQoL can facilitate the development of the critical, analytical

thinking needed to comprehend and interpret the oral health status of the population with whom future dentists will work, thereby enhancing their clinical and social awareness. Moreover, the dental education system should direct efforts toward improving the quality of life of students²⁴ and the use of OHRQoL assessment tools allows the identification of those students who should be prioritized with regard to the adoption of measures for recuperating oral health.

LIMITATIONS & RECOMMENDATION

The study was a single centre with very limited sample with expected social desirability bias in participants responses. Hence future studies should be conducted among dental students from the various institutions to ensure the generalizability.

CONCLUSION

Study reported statistically significant association between impact on OHRQoL with annual income of parent and SES status of the family ($p < 0.05$) OHRQoL showed statistical significant association with year of study ($p < 0.05$)

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2-questionnaire

Q1.Have you had trouble pronouncing any words because of problems with your teeth ,mouth or dentures?

Q2.Have you felt that your sense of taste has worsened because of problems with your teeth , mouth or denture?

Q3.Have you had painful aching in your mouth?

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