



Prevalence of depression and sense of coherence among dental graduates in a private dental institution in Chennai city

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Submitted: 13 February 2023; Accepted: 10 March 2023; Published: 03 April 2023

ABSTRACT

Background: Dentistry is a stressful and very hard working profession. Dental practitioners experience numerous social issues and higher levels of depression. Prevalence of depression in dental graduates is 60.4. First year students have higher prevalence of depression than other higher class years. Depression affects a significant proportion of health professionals.

Materials And Methods: This respective study took place in Chennai, Tamil Nadu, which included 123 responses under the age group of 17 to 25 years. A convenience sampling method was used. The statistical data was created and circulated through google form and the responses validity checking was done by consulting experts and data entered in the google form and google sheets were analysed, tabulated, interpreted and compared.

Result: The total number of subjects tested in this study was 123. The data collected was entered in SPSS software, version 25. The p-value for the age group is statistically not significant because the p-value for sense of coherence (0.183) and depression (0.060) was greater than 0.05 ($p > 0.05$). There was no statistically significant association between gender and sense of coherence ($P = 0.571$) and depression ($P = 0.751$).

Conclusion: This study concludes dental students in a private institution in chennai city have a high prevalence of depression and anxiety, However, it was not significantly associated with gender or age of the students

Keywords: *Depression, sense of coherence, anxiety, stress, dental graduates, dental professionals, Innovative analysis*

INTRODUCTION

Dentistry is a stressful and very hard working profession. Dental practitioners experience numerous social issues and higher levels of depression. These difficulties influence their daily life health both physically and mentally which leads to anxiety, depression, burnout, etc. Their health and well being are affected by depression and anxiety(1). Prevalence of depression in dental graduates is 60.4. First year students have higher prevalence of depression than other higher class years. Depression affects a significant proportion of health professionals. Sense of coherence is a psychological factor and health-related behaviors that explains the relation between personal intentionality(2).

Sense of coherence can be a determinant of oral health related behaviours including tooth brushing frequency, daily smoking and dental attendance(3). Stressors associated with dentistry include time malignant, scheduling pressures, highly technical and intensive nature of work. This stress can lead to depression, anxiety, substance misuse, diminished work efficiency and burn out(4).

Stress in undergraduate dental students has a significant increase in stress that intensifies with students' years of study. Stress affects an individuals physical and psychological well-being (5). Depression is a common mental disorder that is caused by depressed mood, loss of pleasure or interest, loss of self-worth, etc. it is associated with psychological, behavioural and physical symptoms(5,6).

The present research was conducted to analyse the prevalence of depression and sense of coherence among the dental graduates.

Lots of research has been conducted on the psychiatric issues of medical students. (7–15),(16),(17),(18,19),(20),(21),(22–26). The aim of this study is to analyse the number of people suffering from stress, depression, anxiety, etc. This survey questionnaire was conducted among 123 dental graduates.

MATERIALS AND METHODS

This cross sectional study was conducted in Chennai, Tamil Nadu, which included 123

responses under the age group of 17 to 25 years. Random sampling method was used to select the participants from a cohort of dental graduates in a private dental institution in chennai.

A detailed questionnaire survey was administered to the sample which contained items collecting data on demographics, depression and sense of coherence. This study included those students who agreed to the terms of free and informed consent. Ethical approval is granted for the study by the Institutional Research Ethics Committee.

The statistical data was created and circulated through google form and the responses validity checking was done by consulting experts and data entered in the google form and google sheets were analysed, tabulated, interpreted and compared. Chi-square test was done for the representation of data collected.

Study Design

cross sectional questionnaire survey.

Study Setting

Prevalence of depression and sense of coherence among dental graduates in chennai city.

Sample Size

123 dental practitioners.

Sampling And Scheduling

owing to the nature of the study design and setting, a convenience sampling method was used. The data was collected over a period of one month. 123 individuals responded and fully filled the survey.

Survey Instrument

A pre-tested and validated questionnaire was used to record information on the demographic items (age and gender). The depression scale had seven items and each response was rated from 1-7 which represents the level of depression; 1 represents the low level of depression and 7 represents the high level of depression. The

sense of coherence scale had thirteen items and each response was rated from 1-7 which represents the level of sense of coherence; 1 represents the low level of sense of coherence and 7 represents the high level of sense of coherence according to the questions. This survey contained 20 questions out of which 13 questions were of sense of coherence and 7 questions were of depression.

Inclusion Criteria

All those who were willing to participate were included in the study.

Exclusion Criteria

Incomplete submissions were excluded from the study.

Ethical Clearance

Prior to the start of the study, ethical clearance was obtained from the institution ethical committee of Saveetha university.

Statistical Analysis

The responses from the google sheet were transferred into excel and were then exported to SPSS software, version 25. Descriptive statistics was done using frequency and percentage. Inferential statistics was done using the chi square test. Interpretation was based on a p value less than 0.05, which was statistically significant. Data was collected and its analysis was done by

SPSS software and chi-square test was used for various correlations. The p-value for sense of coherence in age group is 0.183 and in gender group is 0.571. The p-value of depression for age group is 0.060 and in gender group is 0.751.

RESULT

The total number of subjects tested in this study was 123. Age group-Out of 123 members, 80 members were less than 20 age for sense of coherence and 43 members were more than 20 age for sense of coherence. Mean value for the age group less than 20 is 54.5 and the mean value for the age group more than 20 is 58.1. For depression, less than 20 age are 80 members and more than 20 age are 43 members. The mean value of the members who are less than 20 years old is 30.05 and for then members who are more than 20 years old is 32.60.

Gender group-Out of 123 members, 32 subjects were males with mean value 57.06 and 91 subjects were females with mean value 55.37 for sense of coherence. The number of males and females were the same as mentioned above and the mean values for males is 30.59 and for females is 31.06 for depression.

The p-value for the age group is statistically not significant because the p-value for sense of coherence (0.183) and depression (0.060) was greater than 0.05 ($p > 0.05$). The p-value for the gender group is statistically not significant because the p-value for sense of coherence (0.571) and depression (0.751) was greater than 0.05.

TABLE 1: This table shows the mean comparison of SOC scores between two different age groups statistics of age (less than 20 years and more than 20 years). The mean value for SOC is 54.5 (less than 20 years) and 58.18 (more than 20 years) and the std.deviation is 14.5 (less than 20 years) and 14.17 (more than 20 years) and their p-value is not significant ($p > 0.05$). The mean value for depression is 30 (less than 20 years) and 32.6 (more than 20 years) and the std.deviation is 6.91 (less than 20 years) and 7.46 (more than 20 years). There is no statistically significant difference ($p > 0.05$)

	Age_cat	N	Mean	Std. Deviation	P
SOC	Less than 20	80	54.5375	14.50879	0.183
	More than 20	43	58.1860	14.17116	

Depression	Less than 20	80	30.0500	6.91705	0.06
	More than 20	43	32.6047	7.46146	

TABLE 2: This table shows the mean comparison of SOC scores between males and females. The mean value of SOC in males is 57.06 and the std.deviation is 13.72. Similarly, the mean value of SOC in females is 55.37 and the std.deviation is 14.73. The mean value of depression in males is 30.59 and the std.deviation is 6.91. Similarly, the mean value of depression in females is 31.06 and the std.deviation is 7.31. There is no statistically significant difference (p-value>0.05)

	Gender	N	Mean	Std. Deviation	P
SOC	male	32	57.0625	13.72527	0.571
	female	91	55.3736	14.73065	
Depression	male	32	30.5938	6.91823	0.751
	female	91	31.0659	7.31179	

DISCUSSION

Numerous studies all over the world have shown that psychological morbidity is increasing among medical students. Dentistry requires a lot of skillful talents, overloaded with facts(27). The experience of having a serious illness such as major depression affects the individuals quality of life and requires significant adaptation in order to cope. The sense of coherence scores were low at baseline, although the patients who recovered increased their sense of coherence significantly(28).

The prevalence of anxiety among the dental practitioners in this study was 65%-75%, which was similar to other studies. This could be because of the additional patient load resulting in longer working hours, the increased need for concentration, time pressures, tiredness and the repetitive nature of work(1). The prevalence of depression, stress and anxiety appears high in first year and second year BDS students. Psychological illness can lead to unconstructive outcomes as well as impairment in ability to work professionally, deterioration in relationships(29).

Dental students are exposed to varying levels of stress that may affect their mental and physical health, academic performance and quality of life. The aim of this study was to determine the prevalence and severity of depression, anxiety and stress and the relationships between them(29,30).

This study is cross-sectional and cannot therefore determine causal relationships. Research of dental student burnout has increased in recent years and most studies have been focused on clinical years. Burnout students can be hypothesized to be either less motivated to fill out a survey or more likely to participate because the topic is relevant to them. Depression may be a consequence of prolonged burnout experience(31). The SOC appears to be a determinant of the Oral Health Impact Profile, independently of oral health, oral health behaviour and socio-economic factors. A psycho-social aspect is strongly embodied in the oral health-related quality of life of individuals(32).

CONCLUSION

This study showed that many professionals in chennai city face several sources of depression and anxiety. Therefore, it is recommended that workshops, seminars and education programs on depression and anxiety management be organised for dental professionals periodically.

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