

The Burnout Syndrome-A Trending Psychological Affliction in Dental Students of Dental Colleges in Navi Mumbai

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Abstract

Background: Burnout is a state of prolonged stress that leads to emotional mental and physical strain. Increasing levels of burnout can be observed in not just various working professionals but even the student community. The current study was conducted to assess the prevalence of burnout among dental students of Navi Mumbai by using the abbreviated Maslach Burnout Inventory (aMBI).

Methods And Materials: A cross-sectional study was carried out amongst 500 randomly selected dental students across dental colleges in Navi Mumbai. A questionnaire with 22 questions was used to quantify burnout. Distribution of responses for each variable was examined using frequencies and percentages among the sub-groups to find out burnout levels on various components of the scales.

Results: 79.6% was the responder rate. The mean age of study participants was 18 – 26 years. 77.6% of study participants were females. 36.2% students were residential, 37.9% were non-residential, 25.9% students fell in both categories. 74.87% students were in the clinical years of their course. Students under clinical coursework showed maximum levels of burnout. Depersonalisation prevailed amongst all study participants and Lack of Personal Accomplishment was a significant but minor contributor to burnout.

Conclusion: This study is one of a kind in showing the high prevalence of burnout in dental students across Navi Mumbai through preclinical and clinical years and hence includes both undergraduates and postgraduates.

Keywords: Dental, Students, Maslach, Burnout Inventory, Emotional Exhaustion, Depersonalisation, Lack of Personal Accomplishment

Introduction

According to Maslach (1981) Burnout is a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment that occurred among various professionals who work with other people in challenging situations^{[1][2]}. It leads to lower emotional intelligence wherein the dentist is unable to manage his own feelings and bring about positive emotions in a patient in turn leading to a disharmonious work study balance and clinical in competency.

Burnout results from prolonged exposure to stress. It leads to despair and low spirits in one's profession. Several studies have been carried out that report a high incidence of burnout in dental professionals,^{[3][4][5][6]} attributing the same to various causes like confinement, patient anxiety, compromised treatment, stress of perfection, economic pressures, low self-esteem, time and scheduling pressures, staff and technical problems, dissatisfaction in the relationships with patients, problems relating to the physical environment, uncomfortable working posture, and many more^{[7][14]}. Hermanson (1972) reported emotional illness ranked third among illnesses in dentists^[12] and Cooper et al (1987) reported the dental profession is the most stressful of all health professions^[13].

The results of various studies report a high prevalence of burnout not just in dental professionals but also dental students. Its cause being attributed to various academic stressors like performance apprehensions, educator approach, grades, five year

undergraduate and three year postgraduate course duration; clinical stressors like poor interpersonal skills, precision, incomplete quotas as well as social stressors like lack of recreation, peer pressure, coping away from home.^{[8][9]} These studies however have a reported small sample size. Hence the need of a survey being carried out in four dental colleges in Navi Mumbai with relatively a larger sample size.

arious diagnostic intervention and coping strategies have been placed. For example the Maslach Burnout Inventory which is the most widely used research tool to assess various patterns of burnout in different groups of people^[10]. Therefore the same has been utilized as an assessment of burnout amongst dental students of Navi Mumbai.

Burnout is a syndrome that if not detected early will lead to its full blown manifestations in one's professional life. Hence this survey with a considerable larger sample size is being carried out to detect its presence earlier so that intervention and help can be provided to those in need at its preliminary stage itself.

The objectives of this study are, assessing the degree of burnout among dental students in Navi Mumbai, and comparing the pattern of burnout syndrome amongst different demographics based on gender, age, qualification and residency.

Aims And Objectives:

- To assess the levels of burnout by using a survey for students of Bharati Vidyapeeth Dental College and Hospital; YMT Dental College; D.Y.Patil Dental College And Hospital; MGM Dental College of Navi Mumbai.
- To evaluate differences if any; in the

levels of Burnout based on various demographics based on gender, age, qualification and residency.

Methods And Materials:

A) Design And Data Collection

i) Source Of Data: Undergraduate and Postgraduate students of Bharati Vidyapeeth Dental College and Hospital, Navi Mumbai; ymt Dental College, Navi Mumbai; D.y.patil Dental College And Hospital, Navi Mumbai; Mgm Dental College, Navi Mumbai

ii) An exploratory, analytical, cross sectional study with dental students was performed from October 2016 to March 2017 in university lecture halls. Students were explained about the research and questionnaires were administered.

iii) Setting Of Institutions: The four universities listed above are dental universities that have been training dental surgeons in large numbers. Undergraduate dental education is based on a traditional model of 8 semesters of pre-clinical and clinical curriculum over 4 years and 1 year compulsory rotatory internship. The postgraduate education model consists of 6 semesters of integrative theory and clinical training over 3 years.

B) Sample Size (study Participants):

The total number of dental undergraduate and postgraduate students randomly selected were 500. 419 students responded. Thus the responder rate was 83.8%. 21 participants had answers that were incomplete and rendered invalid. Therefore, the total sample size of valid study participants was 398. All respondents were voluntary and some wished to keep their details anonymous. Responder percentage for each demograph is as below.

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[Figure 1A, Figure 1B, Figure 1C, Figure 1D].

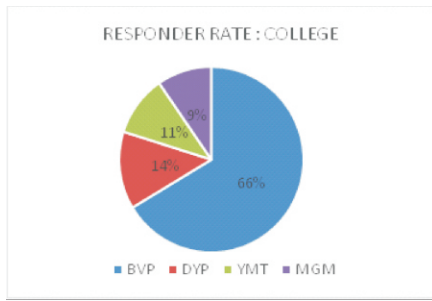


Figure 1A: Responder Rate – College

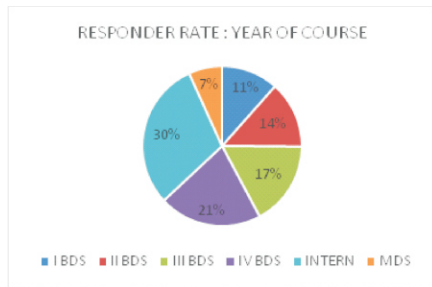


Figure 1B: Responder Rate – Year of Course

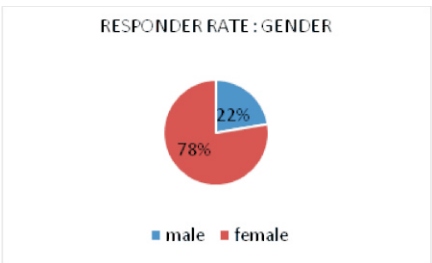


Figure 1C: Responder Rate – Gender

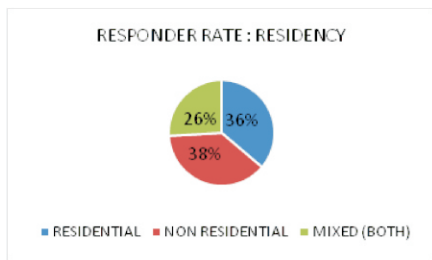


Figure 1D: Responder Rate – Residency

C) Research Instruments:

Study participants had to respond to one objective questionnaire. It was based on the Maslach Burnout Inventory that was introduced by Christina Maslach and is of proven reliability and validity.^[11] The questionnaire is an adapted version of the Human Services Survey subtype of the MBI. The same questionnaire prototype has also been validated in a study to determine burnout in dental students of Spanish Universities.^[15]

The MBI – HSS consists of 22 questions based on the 3 domains of burnout namely : emotional exhaustion (represented by 9 questions of the survey) ; depersonalisation (represented by 5 questions of the survey) ; lack of personal accomplishment

(represented by 8 questions of the questionnaire). Each domain represents the cause of burnout.

Each response was scored on a 0 – 6 likert scale. (Figure 2)

0	Every day
1	A few times a week
2	Once a week
3	A few times a month
4	Once a month or less
5	A few times a year
6	Never

Figure 2: Likert scale to assess the frequency of each item of the questionnaire.^[11]

D) Burnout Scoring

High mean scores of 'Emotional Exhaustion' and 'Depersonalization' and the low mean scores of 'Lack of Personal Accomplishment' correspond to higher degrees of experienced burnout. (Figure 3)

MBI SUBSCALES	LOW	AVERAGE	HIGH
EMOTIONAL EXHAUSTION	<19	19-26	>26
DEPERSONALISATION	<6	6-9	>9
LACK OF PERSONAL ACCOMPLISHMENT	>39	39-34	>34

Figure 3: Burnout scoring criteria.^[14]

E) Data Analysis

The results obtained were entered in Microsoft Excel 2013 and statistically analysed SPSS Software version 16.0. All data was presented as a range, percentages, means and standard deviations. The chi-square test was used to compare any categorical data. All data with p value < 0.05 was considered significant.

Results

Out of 500 randomly selected dental students from four different dental colleges in Navi Mumbai, 398 responders were considered valid. Thus, making the responder rate for a valid sample size of 398 (n = 398) 79.6%.

The mean age of respondents was 18 – 26 years as shown in Figure 4. 22% responders were male and 78% responders were female making the number of females more than males as shown in Figure 5. Figure 6 shows minor differences in the number of student

responders under the residential, non – residential and mixed (both) categories. The numbers of students in their clinical years of training were more than those in their non-clinical years of training

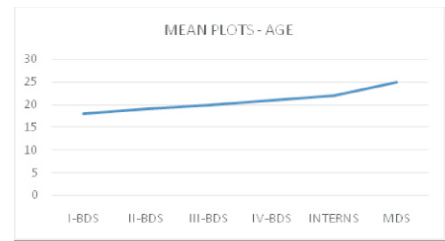


Figure 4 – Responder Rate – Age

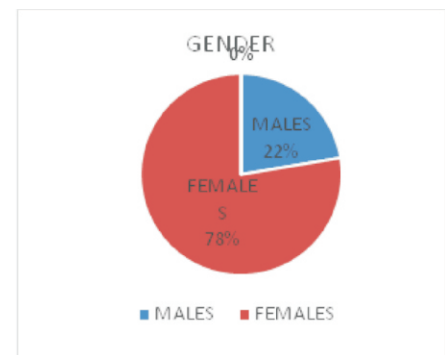


Figure 5 – Responder rate - Gender

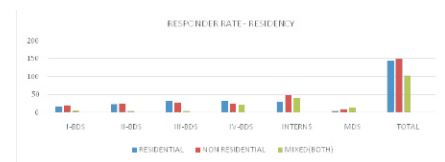


Figure 6 – Responder Rate – Based on Residency

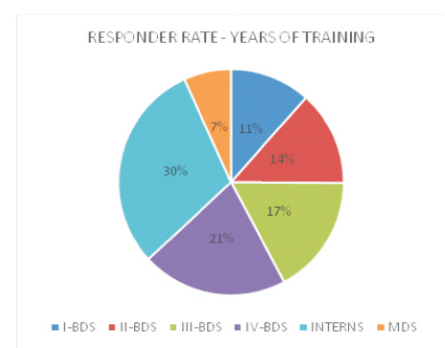


Figure 7: Responder rate – Years of training

Emotional Exhaustion

Post graduate MDS students reported highest mean scores of 30.11 of Emotional Exhaustion. The highest number of students found emotionally exhausted were interns. No significant difference in burnout levels based on gender or residency. 77.4% of the 398 respondents reported high scores on emotional exhaustion compared to 22.6% respondents with low to moderate emotional exhaustion

Depersonalisation

Post graduate MDS students and I-BDS reported highest mean scores of 20.8 and 20.2

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of Depersonalisation respectively. The highest number of students found depersonalised were interns. All students irrespective of gender residency and years of clinical training showed high depersonalisation.

Lack Of Personal Accomplishment

Interns reported lowest mean scores of 13.4 of Lack of Personal Accomplishment, The highest number of students with personal inaccomplishment were interns. No significant different in burnout levels based on gender and residency. 95.7% of all students lacked in personal accomplishment compared to the 4.3% with low to moderate lack of personal accomplishment.

Figure 8: Mean Scores of Burnout represented by each subscale.

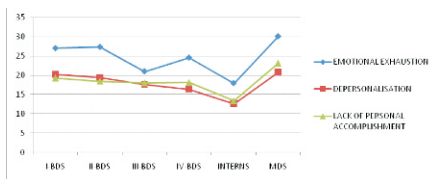


Figure 9: No. of students within high burnout group for each subscale – YEARS OF TRAINING

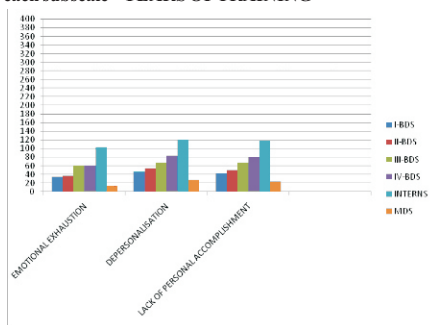


Figure 10: No. of students within high burnout group for each subscale – GENDER

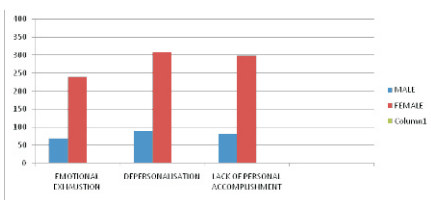
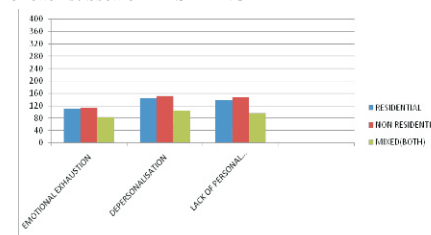


Figure 11: No. of students within high burnout group for each subscale – RESIDENCY



Discussion

The study had a few limitations. The study is cross sectional that analyses behaviour at a specific time. Burnout is a condition that affects professionals over a period of time. Out of the 500 participants randomly selected, some filled incomplete

questionnaires owing to lack of seriousness towards the issue of burnout. Additionally, in that stipulated six month survey result formulation time period every university had varying periods of holidays and student attendance leading to difficulty in sample size collection.

Our study also had important strengths. First, the area of study is larger compared to various other studies on burnout that have mostly been confined to students of one university and this study covered multiple universities. A valid and reliable inventory was used to measure the levels of Burnout in Navi Mumbai dental students. The MBI-HSS has been used as prototype as the study students of a professional degree course that measures all three dimensions of burnout and helps in correlating each. Factors other than years of training and gender were also considered like age and residency.

The sample population showed high burnout scores. All three components indicated a high number of participants suffering burnout. In a recent study at the University of Nuremberg, number of students who showed high emotional exhaustion, depersonalisation, and lack of personal accomplishment was 22.7% , 25% and 37.9% respectively^[17] compared to 61.6% emotional exhaustion, 100% depersonalisation, and 95.7% lack of personal accomplishment in dental students of Navi Mumbai. 90.9% students in this study, were found to be in the category above moderate levels of burnout, compared to two studies carried out in China wherein 52.1% and 71.1% students were found to have high burnout levels^{[18][19]}

Conclusion

Burnout being considered an occupational health hazard, is a serious risk to the dental profession causing a threat to the work force and to the individual dentist. Hence it is a public health issue. The ignorance of burnout may contribute to negative implication for the dentist and patient in terms of approach and work quality. Continuous exposure to various stressors like long working hours, demanding jobs, intense workload, minimum recreational time, increased role and responsibilities of females at home front and at work will result in high stress levels and deteriorating health. Therefore, it is important to uncover the cause from where Burnout germinates as many are unaware that the root cause lies at university levels.

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