Research Article

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Burnout Among Dental Undergraduates in Raichur, Karnataka

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ABSTRACT

Aims and Objective: To assess the burnout among dental students in Raichur, Karnataka.

Material and Methods: A cross sectional study was carried out among the II year, III year, IV year and interns of the Navodaya Dental College and Hospital and AME dental college, Raichur. The questionnaire used a Burnout Clinical Subtype Questionnaire Student Survey (BCSQ-12). All those willing to participate and who gave a written consent were included in the study.

Results: The mean age was 21.66±1.55. Overall, 69.52% were females and 30.48% were male participants. Percentage of students with burnout due to overload was high in fourth year students. Percentage of students with burnout due to lack of development and also neglect was high in two or more failed subjects in their examinations. The male had a higher lack of development than the female and this was statistically significant. But no significant association was seen between overload and neglect with age or sex.

Conclusion: The study showed that the dental undergraduates in Raichur had burn out, more prevalent in male than the females. Burnout syndrome affecting undergraduate dental students could have an adverse effect in their future career. Specialized committee or body should be founded in each dental college to prevent and treat burnout syndrome.

Keywords: Burn out, dental students, overload, lack of development, neglect.

INTRODUCTION

The "burnout" syndrome is also known as a "syndrome of being burned". The term "burnout" was coined for the first time in 1974 by a German psychiatry resident in the US, Herbert J. Freudenberger, referring to "a state of emotional, physical and mental tiredness as a result of work conditions". However, this term has already been used by Graham Greene in 1961, who wrote a novel titled "A burn-out case".[1]

Symptoms of burnout include physical exhaustion, poor judgment, cynicism, guilt, feelings of ineffectiveness, and a sense of disconnection with co-workers or patients. Burnout is measured using the Maslach Burnout Inventory, a high reliability tool that is generally considered to be the best-validated metric of this condition.[2] Dentistry is a profession demanding physical and mental efforts as well as people contacts.[3]Some occupations are generally known as powerful stress inducers, and those related to health care are included. This exposure to stress inducers may cause disorders as burnout syndrome and depressive symptoms.[4]

It is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficiency. Exhaustion is

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the feeling of not being able to offer any more of oneself at an emotional level; cynicism is contemplated as a distant attitude towards work, the people being served by it and among colleagues; ineffectiveness is the feeling of not performing tasks adequately and of being incompetent at work.[5]

'Overload' refers to individuals' feeling of risking health and personal life in the pursuit of good results, and is significantly associated with 'exhaustion'; 'lack of development' refers to the absence of personal growth experiences for individuals together with their desire take on other jobs where they can better develop their skills, and is significantly associated with 'cynicism'; 'neglect refers to individuals' disregard as a response to any difficulty, and is strongly associated with 'inefficacy'.[6]

Awareness of burnout and other forms of job dissatisfaction has wider implications. Many simple measures could improve greatly the contentment and morale of health workers and so improve patient care. Working conditions, career structures, job descriptions, and rotas within hospitals and general practice need to be carefully thought out. All of us need to feel that our work is valued and not excessive and that it offers the variety, flexibility, and rewards to make it worthwhile and enjoyable over a working lifetime. Neither doctors nor has the health service so far recognized adequately the importance of morale.[7]

We developed this study taking into account the need for more information on this condition, specifically in students, in order to enable the development of adequate actions to improve both their quality of life and academic performance. Thus, our objectives were to verify and characterize the presence of Burnout syndrome in a sample of undergraduate dentistry students. The aims of the present study included adapting the BCSQ-12 for use with dental undergraduates, and find the implications of academic and performance stress among these students.

MATERIAL AND METHODS

The current study was conducted among two groups of dental colleges. The major reason why these students were chosen is that a during their undergraduate education, dental students experience academic demands such as tests, theoretical and practical course work, research activities, and aspects of professional practice, such as contact with health professionals and patients.

A cross sectional study was carried among 2nd year, 3rd year, 4th year BDS students and interns of Navodaya Dental College and Hospital, Raichur, Karnataka and AME Dental College and Hospital, Raichur, Karnataka.

The total participants consisted of dental undergraduates (N = 292) attending the Navodaya Dental College and Hospital, Raichur, Karnataka and AME Dental College and Hospital Raichur, Karnataka in the 2014-15 academic year. Of which, 72 undergraduates were 2nd year, 104 undergraduates were 3rd year, 55 undergraduates were 4th year and 61 was interns. There were 89 male and 203 female participants. The instrument assessing "burnout" was the Maslach Burnout Inventory (MBI) of Maslach and Jackson (1981). It is a questionnaire that presents a study subject with a series of statements on feelings and thoughts in regard to his/ her interest in work.

The participants were informed about the aim of the study. The measurements were obtained by means of the self-assessment technique using a questionnaire. All participants provided written informed consent before completing the survey. Participants had adequate time to respond to the asked questions.

Measurements

Socio-demographic and occupational factors

First, we collected data on the following socio-demographic characteristics of the participants: age, gender, married (yes or no), children (yes or no), Place of Residence during the year (with parents, hostel, Shared Apartment, Private Apartment), scholarship (yes or no), studying time (hours / week), parental support for the study (insufficient, good, very good), failed subjects over previous exam period (none, one, two, three or more) and year of study (second, third, fourth, interns).

Burnout Clinical Subtype Questionnaire Students Survey (BCSQ-12-SS)

Method of collection of data was questionnaire and these questions were taken from Burnout Clinical Subtype Questionnaire (BCSQ-12-ss). Then participants responded to these questions by self-assessment technique. Burnout Clinical Subtype Questionnaire (BCSQ-12) consists of 12 items that further established three subtypes of burnout: the overload, the lack of development and the neglect. Out of the 12 questions, four questions related to overload i.e. (I think the dedication I invest in my studies is more than what I should for my health, I neglect my personal life when I pursue important achievements in my studies, I risk my health when I pursue good results in my studies, I overlook my own needs to fulfil studies demands), four questions related to lack of development i.e. (I would like to be doing another studies that is more challenging for my abilities, I feel that my studies is an obstacle to the development of my abilities, I would like to be doing another study where I can better develop my talents, My studies doesn't offer me opportunities to develop my abilities) and four questions related to neglect i.e. (When things at studies don't turn out as well as they should, I stop trying, I give up in response to difficulties in my studies, I give up in the face of any difficulties in my studies tasks, When the effort I invest in studies is not enough, I give in).

The questionnaire is comprised of twelve items asking the participant to rate how often they experience various feelings. These questions were graded according to the Likert scale, using five degrees that range from 'totally disagree' to 'totally agree'.

RESULTS

The present study was carried out among 292 dental undergraduates, studying in two dental colleges in Raichur, Karnataka. The mean age of the participants was 21.66±1.55. Distribution of undergraduates according to socio demographic and year of study has shown in table 01. Most participants (50.34%) were 21-22 years age groups. Eighty nine (30.48%) were males and 203(69.52%) were females. Fifteen (5.14%) undergraduates stayed with their parents, 224(76.71%) undergraduates stayed in the hostel, 35(11.99%) undergraduates stayed in the shared flat, 18(6.16%) undergraduates stayed in the private flat. Only twenty seven (9.25%) undergraduates had scholarship. Two hundred sixty eight (91.78%) undergraduates spent less than 30 hours in studying weekly. One hundred seventy six (60.27%) undergraduates had never failed in their examinations, 42(14.38%) undergraduates had one subject failed in their examinations, 56(19.18%) undergraduates had two subjects failed in their examinations and 18(6.17%) undergraduates had three or more subject failed in their examinations.

Distribution of undergraduates according to high and low scores of overload with socio-demographic and occupational characteristics has shown in table 02. In the present study, 35.62% study of students showed sign of burnout due to overload. Percentage of 4th year undergraduates showed sign of burnout due to overload in their work. The sign of burnout due to overload increases from 2nd year to 4th year undergraduates. The age group of more than 22 years showed sign of burnout due to overload was higher than other age groups. Overload of study group was equally distributed in both male and female.

Distribution of undergraduates according to high and low scores of lack of development with socio-demographic and occupational characteristics has shown in table 03. In the present study, 7.53% study of students showed sign of burnout due to lack of development. Percentage of 4th year undergraduates showed sign of burnout due to lack of development is higher than other students and is least in interns. Percentage of students with high scores in greater than 22 years age group was higher compared to the 21-22 and below 21 years age group. Percentage of males had a higher lack of development than that of females and the difference was statistically significant.

Distribution of undergraduates according to high and low scores of neglect with socio-demographic and occupational characteristics has shown in table 04. In the present study, 6.51% study of students showed sign of burnout due to neglect. Percentage of 3rd year undergraduates showed sign of burnout due to neglect was higher than other students and was least in 2nd year. Percentage of students with high scores in 21-22 years' age group was higher compared to the below 21 years age group and more than 22 years age

Table 1: Distribution of students according to socio-demographic and year of study.

	2nd year n(%)	3rd year n(%)	4th year n(%)	Interns n(%)	Total n(%)
Age (years)					
<21 years	37(51.39)	27(25.96)	03(5.45)	00(00.0)	67(22.95)
21-22 year	34(47.22)	56(53.84)	42(76.36)	15((24.59)	147(50.34)
>22 year	01(1.39)	21(20.20)	10(18.19)	46(75.41)	78(26.71)
Sex					
Male	23(31.94)	28(26.92)	18(32.73)	20(32.78)	89(30.48)
Female	49(68.06)	76(73.08)	37(67.27)	41(67.22)	203(69.52)
Place of residence					
With parents	02(2.78)	04(3.85)	06(10.91)	03(4.92)	15(5.14)
Hostel	60(83.33)	90(86.53)	39(70.91)	35(57.38)	224(76.71)
Shared flats	07(9.72)	04(3.85)	07(12.73)	17(27.87)	35(11.99)
Private flats	03(4.17)	06(5.77)	03(5.45)	06(9.83)	18(6.16)
Scholarship					
Yes	07(9.72)	12(11.54)	02(3.64)	06(9.84)	27(9.25)
No	65(90.28)	92(88.46)	53(96.36)	55(90.16)	265(90.75)
Weekly time spent on studying					
<30 hours	62(86.11)	96(92.31)	52(94.54)	58(95.08)	268(91.78)
30-40hours	09(12.50)	05(4.81)	02(3.64)	02(3.28)	18(6.16)
>40 hours	01(1.39)	03(2.88)	01(1.82)	01(1.64)	06(2.06)
Parental support for the study					
Insufficient	00(00.00)	01(0.96)	00(00.00)	00(00.00)	01(0.34)
Good	09(12.50)	13(12.50)	10(18.18)	10(16.39)	42(14.38)
Very good	63(87.50)	90(86.54)	45(81.82)	51(83.61)	249(85.28)
	2nd year n(%)	3rd year n(%)	4th year n(%)	Interns n(%)	Total n(%)
Failed subject in previous examinations					
None	36(50.00)	70(67.31)	30(54.54)	40(65.57)	176(60.27)

One	16(22.22)	12(11.54)	07(12.73)	07(11.48)	42(14.38)
Two	17(23.61)	16(15.38)	12(21.82)	11(18.03)	56(19.18)
Three or more	03(4.17)	06(5.77)	06(10.91)	03(4.92)	18(6.17)

Table 2: Association of high and low scores of overload with socio-demographic and occupational characteristics.

	Overload		
	Low score n(%)	**High score n(%)**	**P-value**
Year of study			
2nd	49(68.06)	23(31.94)	
3rd	67(64.42)	37(35.58)	
4th	32(58.18)	23(41.82)	
Interns	40(65.57)	21(34.43)	
Age (year)			
<21 years	43(64.18)	24(35.82)	0.63
21-22 year	98(66.67)	49(33.33)	
>22 year	47(60.26)	31(39.74)	
Sex			
Male	57(64.04)	32(35.96)	0.93
Female	131(64.53)	72(35.47)	
Place of residence			
With parents	10(66.67)	05(33.33)	0.78
Hostel	147(65.63)	77(34.37)	
Shared flat	21(60.00)	14(40.00)	
Private flat	10(55.56)	08(44.44)	
	Overload		
Scholarship	**Low score n(%)**	**High score n(%)**	**P-value**
Yes	20(74.07)	07(25.93)	0.27
No	168(63.40)	97(36.60)	
Studying time (hours/week)			
<30 hours	169(63.06)	99(36.94)	0.21
30-40hours	15(83.33)	03(16.67)	
>40 hours	04(66.67)	02(33.33)	
Parental support for the study			
Insufficient	01(100.00)	00(0.00)	0.75
Good	27(64.29)	15(35.71)	
Very good	160(64.26)	89(35.74)	
Failed subjects			
None	107(60.80)	69(39.20)	0.33

One	31(73.81)	11(26.19)	
Two	39(69.64)	17(30.36)	
Three or more	11(61.11)	07(38.89)	

Table 3: Association of high and low scores of lack of development with socio-demographic and occupational characteristics.

	Lack of development		
	Low score n(%)	High score n(%)	P-value
Year of study			
2nd	67(93.06)	05(6.94)	
3rd	97(93.27)	07(6.73)	
4th	49(89.09)	06(10.91)	
Interns	57(93.44)	04(6.56)	
Age (year)			
<21 years	63(94.03)	04(5.97)	0.79
21-22 years	136(92.52)	11(7.48)	
>22 years	71(91.03)	07(8.97)	
Sex			
Male	77(86.52)	12(13.48)	0.01
Female	193(95.07)	10(4.93)	
Place of residence			
With parents	13(86.67)	02(13.33)	0.73
Hostel	208(92.86)	16(07.14)	
Shared flats	33(94.29)	02(05.71)	
Private flats	16(88.89)	02(11.11)	
Scholarship			
Yes	26(96.30)	01(03.70)	0.42
No	244(92.08)	21(07.92)	
Studying time (hours/week)			
<30 hours	247(92.16)	21(7.84)	0.73
30-40hours	17(94.44)	01(5.56)	
>40 hours	06(100.00)	00(0.00)	
	Lack of development		
Parental support for the study	Low score n(%)	High score n(%)	P-value
Insufficient	01(100.00)	00(0.00)	0.95
Good	39(92.86)	03(7.14)	
Very good	230(92.37)	19(7.63)	
Failed subjects			
None	168(95.45)	08(04.55)	0.02
One	39(92.86)	03(07.14)	
Two	49(87.50)	07(12.50)	
Three or more	14(77.78)	04(22.22)	

Table 4: Association of high and low scores of neglect with socio-demographic and occupational characteristics.

	Neglect		
	Low score n(%)	High score n(%)	P-value
Year of study			
2nd	71(98.61)	01(1.39)	
3rd	94(90.38)	10(9.62)	
4th	50(90.91)	05(9.09)	
Interns	58(95.08)	03(4.92)	
Age (year)			
<21 years	66(98.51)	01(1.49)	0.12
21-22 year	134(91.16)	13(8.84)	
>22 year	73(93.59)	05(6.41)	
Sex			
Male	82(92.13)	07(7.87)	0.53
Female	191(94.09)	12(5.91)	
	Neglect		
Place of residence	Low score n(%)	High score n(%)	P-value
With parents	14(93.33)	01(6.67)	0.81
Hostel	208(92.86)	16(7.14)	
Shared flats	34(97.14)	01(2.86)	
Private flats	17(94.44)	01(5.56)	
Scholarship			
Yes	27(100.00)	00(0.00)	0.15
No	246(92.83)	19(7.17)	
Studying time (hours/week)			
<30 hours	251(93.66)	17(6.34)	0.59
30-40hours	17(94.44)	01(5.56)	
>40 hours	05(83.33)	01(16.67)	
Parental support for the study			
Insufficient	01(100.00)	00(0.00)	0.951
Good	39(92.86)	03(7.14)	
Very good	233(93.57)	16(06.43)	
Failed subjects			
None	166(94.32)	10(5.68)	0.66
One	40(95.24)	02(4.76)	
Two	51(91.07)	05(8.93)	
Three or more	16(88.89)	02(11.11)	

group. The percentage of males had a higher neglect than that of female. The difference was statistically not significant.

DISCUSSION

In the present study, majority of participant are third year dental students where as majority of participant were fourth year students in the study done by Montero-Marin et al. in Spain.[8] Majority of participant are females which is similar in comparison to study conducted by Alemany-Martínez A et al in Spain[1]and Montero-Marin et al. in Spain.[8] In the present study, majority of participant are staying in the hostel where as majority of participant stayed in the shared flat in the study done by Montero-Marin et al. in Spain.[8] In the present study, 91.78% dental students spent less than 30 hours in studying weekly, 85.28% dental students said that parental support for studies was very good and 60.27% dental students had never failed subjects in their examinations

which is similar in comparison to study conducted by Montero-Marin et al. in Spain.[8]

In the present study, percentage of students with burnout due to overload and lack of development was high in fourth year students where as percentage of students with burnout due to overload was high in third year students and burnout due to lack of development was high in fifth year students in comparison to study done by Montero-Marin et al. in Spain.[8] Percentage of students with burnout due to neglect was high in third year students in the present study where as percentage of students with burnout due to neglect was high in first year students in comparison to study done by Montero-Marin et al. in Spain.[8]

In the present study, percentage of students with burnout due to overload and neglect was high in male where as percentage of students with burnout due to overload and neglect was high in female in comparison to study done by Montero-Marin et al. in Spain.[8] Percentage of students with burnout due to lack of development was high in male which is similar in comparison to study done by Montero-Marin et al. in Spain.[8]

In the present study, percentage of students with burnout due to overload was high in never failed subjects and lack of development as well as neglect was high in two or more failed subjects in their examinations which is similar in comparison to study done by Montero-Marin et al. in Spain.[8]

SUMMARY AND CONCLUSION

In the present study, mean age of dental students was 21.66±1.55. Percentage of students with burnout due to overload was high in fourth year students. Percentage of students with burnout due to lack of development was high in male. Percentage of students with burnout due to lack of development and also neglect was high in two or more failed subjects in their examinations.

Burnout syndrome affecting undergraduate dental students could have an adverse effect in their future career. Specialized committee or body should be founded in each Dental school to prevent and treat burnout syndrome. Student or a group of students showing any signs or symptoms of burnout should be counsel and the reason or reasons behind that should be treated early. It should be noted that studying the association of burnout with other related variables is suggested to get a wider attention.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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