



Research Article

Stress among Dental Students in Saudi Dental Colleges: Part I: Coping Strategies

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Abstract

Aim: The aim of the study is to investigate coping strategies used by dental students in Saudi dental colleges. **Materials and Methods:** A total of 509 dental students and interns from Saudi dental colleges participated in the study by answering a questionnaire sent to them by web link survey conducted through Survey Monkey. Statistical Analysis: All data was transferred to Statistical Package for the Social Sciences statistical software (SPSS version 16.0). Descriptive statistics are presented. **Results:** Dental interns and students highest coping method (52.8%) is by “find comfort in my religion”. The method of “get emotional support and / or academic advice from others” is chosen by 30.1% and 29.5% as “I have not done this at all” and ““I have been doing this slightly” respectively. **Conclusion:** Interns and students in Saudi dental colleges chose “to find my comfort in my religion” to cope with stress they face in the dental college. It is important that dental colleges incorporate stress-coping programs in their academic activities.

Introduction

It has been reported that dental professionals are subject to different stress-related physical and emotional stress [1,2]. This might be attributed to the stress accumulated since their previous experience in dental colleges. In Saudi Arabia, students enter dental colleges directly from high school. To be admitted to a dental college, they go in strong competition that requires top high school grades and strong performance on examinations and interviews. This causes stress on them which will continue throughout their education in the dental college, where high achievement is expected [3]. Piazza-Waggoner, et al. have reported that undergraduate education experiences in dental colleges are stressful [4]. Furthermore, other studies have reported similar findings and reported that this stressful experience can have implications on students' emotional, physical, social, and future professional well-being [5-7]. In addition, stress also adversely affects the academic performances of students [8]. The prevalence of stress and depression among dental students ranged from 100% to 54% [3,9-11].

As the standard baccalaureate dental program is a very demanding 4-to-6-year college education, therefore, it is important that dental students should cope with the stress. Coping is defined as a cognitive and behavioural effort taken by individuals to try to either alleviate or appreciate the requirements creating the disparity between the person and the coexisting environment [12,13].

Previously, we found that over 95% of students in Saudi dental colleges suffer from stress [11]. The purpose of this study is to investigate the stress-coping strategies used by dental students in Saudi dental colleges. Findings may be used by dental colleges in Saudi Arabia to address the coping strategies and program to reduce stress among their students. In addition, knowing the coping

factors will help dental colleges and faculties to make evidence-based strategies to their students to reduce and cope with stress.

Materials and Methods

The study was approved by King Saud Medical City Institutional Review Board (No. E-22-6866) and registered in King Saud University College of Dentistry Research Center (No. FR 0642). The materials and methods were described previously [11]. In brief, a self-administered questionnaire was used. It consists of 2 parts. Part 1 consists of demographic characteristics of the participants. Part II consists of questions related to the presence or absence of stress and factors that are perceived by participants to cause the stress and the coping methods. The coping methods were of four levels: level 1= I have not done this at all, level 2= I have been doing this slightly, level 3= I have been doing this moderately, level 4= I have been doing this a lot of time.

Subjects included all dental students and interns from the 25 dental Colleges in Saudi Arabia. The questionnaire was distributed using a web link survey conducted through SurveyMonkey during the period of June to September 2022.

Statistical Analysis

Data were analyzed in SPSS (Statistical Package for the Social Sciences) software (version 26.0.; SPSS, Inc., Chicago, Illinois, USA). Descriptive statistics were produced using numbers and percentages are presented.

Results

A total of 509 dental students and interns participated in the study. The demographic characteristics of the participants are shown in Table 1.

Characteristic		N	%
Gender	Male	296	58.2
	Female	213	41.8
Academic Level in the College?	1 st Year in the Dental College, (3 rd and/or 4 th Semesters)	44	8.6
	2 nd Year in the Dental College, (5 th and/or 6 th Semesters)	35	6.9
	3 rd Year in the Dental College, (7 th and/or 8 th Semesters)	69	13.6
	4 th Year in the Dental College, (9 th and/or 10 th Semesters)	107	21.0
	5 th Year in the Dental College, (11 th and/or 12 th Semesters)	121	23.8
	Intern	133	26.1
Cumulative Grade Point Average (GPA) out of 5	Less than 2.75	20	3.9
	2.75 and less than 3.75	135	26.5
	3.75 and less than 4.25	161	31.6
	More than 4.25	193	37.9

Table 1: Demographic Characteristics of participants (N=509) [11].

Table 2 shows coping methods and usage's level used by participants. The "find comfort in my religion" coping method is chosen by 52.8% of the participants as "I have been doing this a lot of time". The coping method of "get emotional support and / or academic advice from others" is chosen by 30.1% and 29.5% as "I have not done this at all" and "I have been doing this slightly" respectively. Other coping methods which are used by participants a lot of time are "to take an action to make the stress-situation better, 31%", "looking for something good about what is happening good in my life, 29.5%", "accept that I cannot control everything around me. 26.1%", and "blame myself for things that happened, 28.3%".

Coping Methods	Participants' level of action: Number (%)*			
	1	2	3	4
Find comfort in my religion (praying or mediating) to cope with stress.	23 (4.5)	84 (16.5)	133 (26.1)	269 (52.8)
Take an action to make the stress-situation better (like sleeping, resting, eating).	40 (7.9)	120 (23.6)	191 (37.5)	158 (31.0)
Looking for something good about what is happening in my life.	59 (11.6)	130 (25.5)	170 (33.4)	150 (29.5)
Blame myself for things that happened and caused me stressed.	85 (16.7)	153 (30.1)	127 (25.0)	144 (28.3)
Accept that I cannot control everything around me.	88 (17.3)	144 (28.3)	144 (28.3)	133 (26.1)
Make jokes and fun of the stress-situation.	63 (12.4)	174 (34.2)	155 (30.5)	117 (23.0)
Do work or other activities (e.g. sport, watch movies) to think less about the stress.	62 (12.2)	160 (31.4)	174 (34.2)	113 (22.2)
Express my negative feeling to let my unpleasant stress-feeling escape.	149 (29.3)	147 (28.9)	124 (24.4)	89 (17.5)
Get emotional support and / or academic advice from other(s) to reduce my stress.	153 (30.1)	150 (29.5)	127 (25.0)	79 (15.5)

*1= I have not done this at all, 2= I have been doing this slightly, 3= I have been doing this moderately, 4= I have been doing this a lot of time.

Table 2: Stress's coping methods and level of action used by participants (N=509).

When 2 levels were combined (levels 1 & 2, and level 3 & 4), results showed that "find comfort in my religion" coping method is chosen by 79 % of the participants (Table 3). Again, the "get emotional support and / or academic advice from others" coping method is used by 59.5% (level 1= I have not done this at all, level 2= I have been doing this slightly).

Coping method	A*: N (%)	B*: N (%)
Find comfort in my religion (praying or mediating) to cope with stress	107 (21)	402 (79)
Take an action to make the stress-situation better (like sleeping, resting, eating)	160 (31.4)	349 (68.6)
Looking for something good about what is happening in my life	189 (37.1)	320 (62.9)
Do work or other activities (e.g. sport, watch movies) to think less about the stress	222 (43.6)	287 (56.4)
Accept that you cannot control everything around you	232 (45.6)	277 (54.4)
Make jokes and fun of the stress-situation	237 (46.6)	272 (53.4)
Blame myself for things that happened and caused me stressed	238 (46.8)	271 (53.2)
Express my negative feeling to let my unpleasant stress-feeling escape	296 (58.2)	213 (41.8)
Get emotional support and / or academic advice from other(s) to reduce my stress	303 (59.5)	206 (40.5)

*A= (I have not done this at all) and (I have been doing this slightly). B= (I have been doing this moderately) and (I have been doing this a lot of time).

Table 3: Stress's coping methods used by participants when 2 low levels (A) and 2 high levels (B) combined* (N=509).

Discussion

Stress among undergraduate students is not uncommon. Our previous publication has shown that over 95% of dental students and interns in Saudi dental colleges reported that they have stress [11]. This finding is consistent with findings in a literature review [14].

The objective of this study was to find coping strategies used by dental interns and undergraduate students to cope with stress they face in dental education. As the study used a questionnaire to collect the students and interns from dental colleges in Saudi Arabia via media, limitations exist such as students' responses might be affected by the emotional status when filling the questionnaire. Future studies might be done by site visiting the dental colleges and meeting students to explain the purpose of the study before distributing the questionnaire.

Results showed variations in interns and students' strategies to cope with stress they face in the dental colleges. The highest coping method used by participants is "Find comfort in my religion (praying or mediating) to cope with stress". This is in agreements with previous study [15]. This may indicate that the strong faith they have. The second method which is used by participants most of the times is "Take an action to make the stress-situation better". In addition, it may indicate that there is no well-structured program to help students when they have stress. This is supported by low percentage of participants who choose the method of "Get emotional support and / or academic advice from other(s) to reduce my stress". This result is consistent with previous studies which reported that less than 15% of dental students sought professional counselling [16,17]. Furthermore, this result was found as shown in a systemic review by Al-zahem et al. [18]. In this review, the coping strategies by dental students in Saudi Arabia include several components, such as reducing fear of failure and workload pressure due to examinations and requirements, coping techniques, such as deep breathing exercises.

Limited number of publications that study the effectiveness of stress coping methods for dental students exist. Previous study reported the deficiency in stress management research and programs to help dental students in their studies [17]. In health colleges, it has been reported that nursing students utilized problem focused (dealing with the problem), emotion focused (regulating the emotion), and dysfunctional (venting the emotions) stress coping mechanisms to alleviate their stress [19].

The effect of stress on dental students shows the importance of establishing stress management programs in dental education. This might be done by incorporating courses in the undergraduate dental curriculum which is taught by clinical psychologist. Furthermore, it can be recommended that Saudi dental colleges

investigate and understand stressors that affect their students and what coping strategies are utilized by them. This will enable dental colleges (administrators and academicians) to evaluate and utilize evidence-based interventions and supporting programs to their students.

Conclusion

More than half of the students in Saudi dental colleges choose "find comfort in my religion" as the most coping method. The method of "get emotional support and / or academic advice from others" is used by approximately one third of the 509 participants.

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