

Assessment of Educational Environment and its Association with Burnout and Mental Health among the Dental Students of Majmaah University: A Pilot Study

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ABSTRACT

Introduction: The educational environment is crucial to the well-being of students, particularly in high-stress fields like dentistry, where academic and clinical pressures can significantly affect mental health. In Saudi Arabia, the high prevalence of psychological distress among dental students necessitates an understanding of the underlying causes.

Aim: To analyse dental students' perceptions of their educational environment in the College of Dentistry, Saudi Arabia and its impact on mental health, particularly anxiety and burnout.

Materials and Methods: This pilot study was conducted in September 2024, involving 50 undergraduate dental students from College of Dentistry, Majmaah University, Al Majmaah, Riyadh, Saudi Arabia. The Dundee Ready Education Environment Measure (DREEM) questionnaire assessed the perception of the educational environment. The Generalised Anxiety Disorder (GAD-7) scale and Maslach's Burnout Inventory-Student Survey (MBI-SS) measured levels of anxiety and burnout. Statistical data were analysed using Statistical Package for Social Sciences (SPSS) version 29.0, with stratification based on gender and

residence. One-way Analysis of Variance (ANOVA) and linear regression were applied to evaluate the relationship between the study variables. A p-value of <0.05 was considered significant.

Results: The average age of the participants was 22.96±2.9 years (range: 19-26 years). The overall mean DREEM score was 124.82/200, with Students' Perception of Teachers (SPT) scoring the highest (71.59%). Female students had a significantly more positive perception of teachers than male students. No significant correlation was found between Professional Efficacy (PE) and GAD-7 scores ($r=0.257$), but other parameters, such as scores for DREEM domains, MBI dimensions and GAD-7, showed significant positive correlations. All the DREEM domains significantly predicted anxiety and burnout levels.

Conclusion: Overall, the undergraduate dental students of Majmaah University, Saudi Arabia, had a generally favourable perception of their educational environment. However, addressing emotional stressors and enhancing peer relationships, curriculum design and the academic atmosphere may help reduce burnout and anxiety.

Keywords: Dundee ready education environment measure, Generalised anxiety disorder, Maslach's burnout inventory-student survey, Risk factors

INTRODUCTION

The educational environment plays a pivotal role in shaping the overall well-being of students, especially in demanding fields like dentistry, where academic pressure and clinical responsibilities can significantly impact mental health [1]. Dental students are often exposed to high levels of stress, which may lead to anxiety and burnout, ultimately affecting both their academic performance and personal lives [2]. In the Kingdom of Saudi Arabia, dental education has undergone significant development, with an increasing emphasis on the quality of the educational environment.

The perception of dental students regarding their educational environment significantly influences their mental health. A recent study conducted in 2024 found that while medical students generally have positive impressions of their educational institutions, they also report high levels of stress and anxiety due to various factors [3].

A recent study assessed burnout among Saudi Dental Board residents and found a significant prevalence of burnout (46.3%) with variations based on gender, specialty and marital status, highlighting potential stress and mental health concerns [4]. Stress among dental students can have severe consequences, negatively affecting both their physical and mental health and posing a risk to their overall well-being [5].

When stressors accumulate, they frequently manifest as anxiety, which may exacerbate feelings of burnout [6]. Burnout, defined by

Emotional Exhaustion (EE), depersonalisation and reduced personal accomplishment, represents a significant concern for dental students, as it can hinder their capacity to thrive academically and professionally [7,8]. Elevated stress levels often lead to psychological issues and EE, which can contribute to professional burnout and reduced productivity [9]. Understanding how students perceive their academic environment and its link to these psychological stressors is essential in addressing mental health concerns and creating more supportive educational settings [10].

Given the high prevalence of psychological distress among dental students in Saudi Arabia, it is crucial to identify the underlying causes. This will enable the development of effective coping strategies, such as support programs and preventive measures, which can help alleviate stress and benefit the students' well-being. Limited studies have been conducted to assess the educational environment in a few universities across Saudi Arabia [11-13]. However, no studies have been done to explore whether there is any association between the educational environment and mental health status. Understanding these perceptions is essential for developing targeted interventions that can enhance student well-being, reduce stress and promote a more supportive and conducive learning atmosphere. By addressing these concerns, educators and policymakers can help ensure a healthier, more productive educational experience for future dental professionals.

Henceforth, to fill this gap in the literature, the present study was conducted with the aim of evaluating the educational environment in dental schools and its influence on anxiety and burnout levels among undergraduate dental students in the Kingdom of Saudi Arabia.

MATERIALS AND METHODS

A cross-sectional pilot study was conducted at the Department of Preventive Dental Sciences, College of Dentistry, Majmaah University, Al Majmaah, Riyadh, Saudi Arabia in September 2024, after obtaining ethical clearance permission from the institutional ethics committee. The study employed a convenience random sampling technique. The minimum number of responses required for a pilot study to assess the reliability of a questionnaire is 30 [14]. Participation in the survey was voluntary and all responses were anonymous to ensure the confidentiality of the participants. Informed consent was obtained from all participants at the beginning of the survey, where they were informed about the purpose of the study, the voluntary nature of their participation and their right to withdraw at any time without any repercussions. The study was conducted as per ethical guidelines and was approved by the Institutional Review Board (IRB) at Majmaah University (MUREC-Sep.05/COM-2024/24).

Inclusion and Exclusion criteria: Dental students in the undergraduate dental program who consented to participate were included. Postgraduate students, undergraduates not currently enrolled, and those who declined to provide consent were excluded.

Study Procedure

The data was collected via an online questionnaire, which was designed using Google Forms by the author, who is an assistant professor in the Department of Preventive Dental Sciences, College of Dentistry, Majma'ah University (https://docs.google.com/forms/d/e/1FAIpQLScUJJCjYI94Ps2i4JfuWSikrNzWoe9F_0q1i-tLFQT-YIfkDw/viewform?usp=sf_link).

The questionnaire comprised three sections in the English language. The first section addressed the purpose of the study and the voluntary consent of the participants. The second section gathered basic socio-demographic and academic information, such as age, gender, place of residence and family monthly income. This section included the DREEM questionnaire for assessing the students' academic experience [15]. The third section included the GAD-7 questionnaire to assess the anxiety levels of the students [16] and the fourth section included the MBI-SS to assess the burnout level of the students [17]. The survey was accessible online, ensuring that students could participate at their convenience.

DREEM questionnaire [15]: The DREEM questionnaire is a globally recognised tool for evaluating the educational environment within medical and dental schools. It is particularly useful in identifying strengths and areas for improvement in educational settings. It comprises 50 items rated on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," where: 0=Strongly Disagree, 1=Disagree, 2=Uncertain, 3=Agree and 4=Strongly Agree. Reverse scoring was used for the nine negative items (4, 8, 9, 17, 25, 35, 39, 48 and 50), where "Strongly Agree" was scored as 0 and "Strongly Disagree" was scored as 4. The total possible score is 200, with higher scores indicating a more positive perception of the educational environment.

The total score is interpreted as follows: very poor (0-50), plenty of problems (51-100), more positive than negative (101-150) and excellent (151-200) [18]. Each subscale score provides further insights into specific aspects of the educational environment, allowing for targeted improvements. The individual DREEM items were interpreted as follows: items with a mean score of ≥ 3.5 are considered real positive points, ≤ 2 indicate problem areas and scores between 2 and 3 represent aspects of the environment that could be improved [18].

Generalised Anxiety Disorder 7 (GAD-7) Scale [16]: The GAD-7 is a widely used screening tool for assessing the severity of GAD. It helps in identifying students who may be experiencing significant anxiety. The scale consists of seven items, with each item assessing a specific symptom of anxiety. Each item is scored on a 4-point Likert scale where: 0=Not at all, 1=Several days, 2=More than half the days and 3=Nearly every day. The total score, which ranges from 0 to 21, is categorised as minimal anxiety (0-4), mild anxiety (5-9), moderate anxiety (10-14) and severe anxiety (15-21). A score of 10 or more typically indicates moderate to severe anxiety, suggesting that the student may benefit from further evaluation and potential intervention.

Maslach Burnout Inventory-Student Survey (MBI-SS) [17]: It measures levels of burnout by assessing three key dimensions: EE, Cynicism (CY) and Professional Efficacy (PE). The MBI-SS includes 15 items, rated on a 7-point Likert scale from "Never" to "Every day," where: 1=Never, 2=A few times a year, 3=Once a month or less, 4=A few times a month, 5=Once a week, 6=A few times a week and 7=Every day. The questions for PE were reverse-coded before the analyses to ensure that scores were consistent with the other two scales [19]. The scores for the three dimensions range from 0 to 30, with higher scores indicating greater levels of burnout.

STATISTICAL ANALYSIS

The SPSS version 29.0 was used for statistical analysis. Descriptive statistics were utilised to summarise the demographic data and key variables. An independent sample t-test was conducted to compare the mean DREEM domain scores, GAD-7 and MBI domain scores between different subgroups. Effect sizes were calculated using Cohen's d test, where the effect sizes could be classified as small ($d=0.2$), medium ($d=0.5$) and large ($d=0.8$). Pearson's correlation test was performed to determine the correlation between the studied variables. Linear regression analysis was employed to account for the effects of confounders, namely age, gender, place of residence and family monthly income, on the relationship between the predictor variables (DREEM domains) and the outcome variables (GAD-7, EE, CY and PE). A p-value of less than 0.05 was considered statistically significant.

RESULTS

The questionnaire was distributed to 90 dental students, out of which 58 responded, resulting in a response rate of 64.4%. Eight responses were incomplete and were consequently excluded. The basic socio-demographic details of the participants are provided in [Table/Fig-1]. The average age of the participants was 22.96 ± 2.9 years (range: 19-26 years).

Variables	Subgroup	n	%
Gender	Male	26	52
	Female	24	48
Place of residence	Urban	31	62
	Rural	19	38
Family's monthly income	Less than 15,000 SAR	15	30
	Between 15,001 and 30,000 SAR	23	46
	Above 30,000 SAR	12	24

[Table/Fig-1]: Sociodemographic details of the participants.

The overall mean DREEM score was 124.82 out of 200. The overall mean scores for individual domains were as follows: Students' Perception of Learning (SPL) - 29.08/48 (60.58%), SPT - 31.5/44 (71.59%), Students' Academic Self-perception (SASP) - 20.72/32 (64.75%), Students' Perception of Atmosphere (SPA) - 28.02/48 (58.37%) and Students' Social Self-perception (SSSP) - 15.5/28 (55.36%). Only one item had an average score above 3.5, which was "15. I have good friends in this location" [Table/Fig-2].

DREEM domain	Item	Sum of all individual scores	Mean±SD
SPT	2. The teachers are knowledgeable	150	3.00±1.04
	6. The teachers are patient with patients	165	3.30±0.93
	8. The teachers ridicule the students	130	2.60±1.32
	9. The teachers are authoritarian	123	2.46±1.43
	18. The teachers have good communications skills with patients	148	2.96±1.24
	29. The teachers are good at providing feedback to students	151	3.02±0.91
	32. The teachers provide constructive criticism here	127	2.54±1.34
	37. The teachers give clear examples	153	3.06±0.91
	39. The teachers get angry	143	2.86±1.34
	40. The teachers are well prepared	148	2.96±1.21
	49. I feel able to ask the questions I want	137	2.74±1.24
SPL	1. I am encouraged to participate in the group	130	2.60±1.16
	7. The teaching is often stimulating	126	2.52±1.23
	13. The teaching is student centered	151	3.02±1.02
	16. The teaching helps to develop my competence	109	2.18±1.30
	20. The teaching is well focused	146	2.92±1.19
	21. I feel I am being well prepared for my profession	125	2.50±1.09
	24. The teaching time is put to good use	130	2.60±1.46
	25. The teaching over-emphasises factual learning	56	1.12±1.22
	38. I am clear about the learning objectives of the course	142	2.84±1.11
	44. The teaching encourages me to be an active learner	104	2.08±1.37
	47. Long term learning is emphasised over short term learning	134	2.68±1.30
48. The teaching is too teacher-centered	101	2.02±1.20	
SASP	5. Learning strategies which worked for me before continue to work for me now	115	2.30±1.16
	10. I am confident about my passing this year	150	3.00±0.97
	22. The teaching helps to develop my confidence	119	2.38±1.38
	26. Last year's work has been a good preparation for this year's work	121	2.42±1.13
	27. I am able to memorise all I need	108	2.16±1.06
	31. I have learned a lot about empathy in my profession	148	2.96±1.09
	41. My problem solving skills are being well developed here	133	2.66±0.87
45. Much of what I have to learn seems relevant to a career in healthcare	142	2.84±1.13	
SPA	11. The atmosphere is relaxed during the clinical teaching clinical teaching	78	1.56±1.21
	12. This programme is well timetabled	123	2.46±1.30
	17. Cheating is a problem in the programme	122	2.44±1.60
	23. The teaching is relaxed	131	2.62±1.41
	30. There are opportunities for me to develop interpersonal skills	113	2.26±1.16
	33. I feel socially comfortable here	135	2.70±1.37
	34. The atmosphere is relaxed during teaching sessions	135	2.70±1.23
	35. I find the programme disappointing	141	2.82±0.98
	36. I am able to concentrate well	124	2.48±1.16
	42. The enjoyment outweighs the stress of the programme	76	1.52±1.30
	43. The atmosphere motivates me as a learner	75	1.50±1.28
50. The students irritate the teachers	148	2.96±1.24	
SSSP	3. There is a good support system for students who get stressed	91	1.82±1.39
	4. I am too tired to enjoy the programme	64	1.28±1.26
	14. I am rarely bored on this programme	67	1.34±1.12
	15. I have good friends in this location	177	3.54±0.84
	19. My social life is good	140	2.80±1.12
	28. I seldom feel lonely	142	2.84±1.33
	46. My accommodation is pleasant (answer if appropriate)	94	1.88±1.46

[Table/Fig-2]: DREEM item scores.

SPL: Students' perceptions of learning; SPT: Students' perceptions of teachers; SASP: Students' academic self-perception; SPA: Students' perceptions of atmosphere; and SSSP: Students' social self-perception

The items that received the lowest scores were: 25. The teaching over-emphasises factual learning (1.12±1.22), 43. The atmosphere motivates me as a learner (1.50±1.28) and 42. The enjoyment outweighs the stress of the program (1.52±1.30). The comparison

of the DREEM domain scores between various groups found that female dental students had a significantly higher positive perception of teachers (SPT) compared to male students (p=0.032) [Table/Fig-3].

Variables/Groups		SPL (48)	SPT (44)	SASP (32)	SPA (48)	SSSP (28)	Global DREEM Score (200)	GAD	EE	Cy	PE
Gender	Male (N=26)	27.65±8.73	28.85±9.11	20.54±4.6	27.42±7.89	15.27±4.12	119.73±31.69	7.27±3.14	25.58±7.47	17.27±9.42	18.08±7.09
	Female (N=24)	30.62±8.29	34.37±8.55	20.92±5.19	28.67±8.1	15.75±5.7	130.33±31.95	6.62±3.35	25.03±8.71	13.75±8.05	15.25±8.47
	p-value	0.224	0.032	0.786	0.585	0.733	0.245	0.486	0.830	0.164	0.206
	Effect size (Cohen's d)	-0.349	-0.625	-0.077	-0.156	-0.097	-0.333	0.199	0.061	0.400	0.363
Place of residence	Urban (N=31)	28.32±8.57	30.90±8.34	20.52±4.86	28.22±8.83	15.81±4.16	123.77±30.9	6.77±2.87	25.1±7.9	15.84±9.08	18.13±8.04
	Rural (N=19)	30.31±8.63	32.47±10.6	21.05±4.94	27.68±6.42	15±6	126.53±34.37	7.26±3.8	25.74±8.4	15.16±8.78	14.42±7.08
	p-value	0.430	0.563	0.708	0.818	0.577	0.771	0.608	0.787	0.796	0.105
	Effect size (Cohen's d)	-0.232	-0.17	-0.11	-0.068	-0.164	-0.085	-0.15	-0.079	0.076	0.482

[Table/Fig-3]: Comparison of mean DREEM domain scores, GAD7 and MBI domain scores between different subgroups. SPL: Students' perceptions of learning; SPT: Students' perceptions of teachers; SASP: Students' academic self-perception; SPA: Students' perceptions of atmosphere; SSSP: Students' social self-perception; GAD: Generalised anxiety disorder; EE: Emotional exhaustion; CY: Cynicism; PE: Professional efficacy; and DREEM: Dundee ready education environment measure

The correlation between DREEM domains and outcome variables, specifically GAD-7 and burnout scores, indicated that there was no significant correlation between PE and GAD-7 scores, while the remaining parameters showed a significant positive correlation among them [Table/Fig-4]. All the DREEM domains were found to be significant predictors for the levels of anxiety, EE, CY and PE [Table/Fig-5].

family monthly income, on the relationship between the predictor variables (DREEM domains) and the outcome variables (GAD-7, EE, CY and PE).

DISCUSSION

The findings of the present study provide significant insights into dental students' perceptions of their educational environment and

Groups	SPL	SPT	SASP	SPA	SSSP	Global DREEM score	GAD7	EE	CY	PE	
SPL	1	0.835***	0.761***	0.901***	0.647***	0.947***	-0.583***	-0.540***	-0.533***	-0.528***	
SPT	0.835***	1	0.730***	0.800***	0.604***	0.914***	-0.564***	-0.390**	-0.439***	-0.403**	
SASP	0.761***	0.730***	1	0.819***	0.607***	0.862***	-0.571***	-0.637***	-0.528***	-0.600***	
SPA	0.901***	0.800***	0.819***	1	0.681***	0.949***	-0.643***	-0.674***	-0.672***	-0.557***	
SSSP	0.647***	0.604***	0.607***	0.681***	1	0.762***	-0.526***	-0.549***	-0.474***	-0.403**	
Global DREEM score	0.947***	0.914***	0.862***	0.949***	0.762***	1	-0.646***	-0.605***	-0.589***	-0.549	
GAD7	-0.583***	-0.564***	-0.571***	-0.643***	-0.526***	-0.646***	1	0.554***	0.504***	0.257(NS)	
EE	-0.540***	-0.390**	-0.637***	-0.674***	-0.549***	-0.605***	0.554***	1	0.793***	0.611***	
CY	-0.533***	-0.439***	-0.528***	-0.672***	-0.474***	-0.589***	0.504***	0.793***	1	0.800***	
PE	-0.528***	-0.403**	-0.600***	-0.557***	-0.403**	-0.549***	0.257(NS)	0.611***	0.800***	1	
			Global DREEM score			Global MBI score			GAD-7 score		
Global DREEM score			1			-0.639***			-0.646***		
Global MBI score			-0.639***			1			0.486**		
GAD-7 score			-0.646***			0.486**			1		

[Table/Fig-4]: Correlation between DREEM domains and outcome variables (GAD7, EE, CY and PE scores). SPL: Students' perceptions of learning; SPT: Students' perceptions of teachers; SASP: Students' academic self-perception; SPA: Students' perceptions of atmosphere; SSSP: Students' social self-perception; GAD: Generalised anxiety disorder; EE: Emotional exhaustion; CY: Cynicism; PE: Professional efficacy; and DREEM: Dundee ready education environment measure. Pearson's correlation test was performed to find the correlation between variables. The p-value less than 0.05 was considered to statistically significant. *** - p<0.001, ** - p<0.01, * - p<0.05

Variables	Anxiety			Emotional exhaustion			Cynicism			Professional efficiency		
	aOR	95%CI of aOR	p-value	aOR	95%CI of aOR	p-value	aOR	95%CI of aOR	p-value	aOR	95%CI of aOR	p-value
SPL	-0.225	-0.322 to -0.129	<0.001	-0.546	-0.794 to -0.298	<0.001	-0.540	-0.819 to -0.261	0.001	-0.427	-0.669 to -0.186	<0.001
SPT	-0.219	-0.317 to -0.121	<0.001	-0.406	-0.679 to -0.134	0.004	-0.422	-0.720 to -0.125	0.006	-0.280	-0.541 to -0.020	0.036
SASP	-0.401	-0.579 to -0.222	<0.001	-1.196	-1.601 to -0.790	<0.001	-1.045	-1.542 to -0.548	<0.001	-0.983	-1.383 to -0.583	<0.001
SPA	-0.257	-0.353 to -0.161	<0.001	-0.690	-0.920 to -0.460	<0.001	-0.747	-0.996 to -0.497	<0.001	-0.530	-0.766 to -0.295	<0.001
SSSP	-0.348	-0.532 to -0.163	<0.001	-1.023	-1.460 to -0.586	<0.001	-0.959	-1.462 to -0.455	<0.001	-0.681	-1.127 to -0.234	0.004
Global DREEM score	-0.068	-0.093 to -0.043	<0.001	-0.169	-0.232 to -0.105	<0.001	-0.169	-0.241 to -0.097	<0.001	-0.127	-0.191 to -0.063	0.001

[Table/Fig-5]: Association between DREEM domain scores and outcome variables (GAD7, EE, CY and PE scores). The odds ratio was adjusted for confounding factors, including age, gender, place of residence and family monthly income. SPL: Students' perceptions of learning; SPT: Students' perceptions of teachers; SASP: Students' academic self-perception; SPA: Students' perceptions of atmosphere; SSSP: Students' social self-perception; GAD: Generalised anxiety disorder; EE: Emotional exhaustion; CY: Cynicism; PE: Professional efficacy; DREEM: Dundee ready education environment measure

An independent sample t-test was used to compare the mean DREEM domain scores, GAD-7 and MBI domain scores between different subgroups. A p-value of less than 0.05 was considered statistically significant.

The age of the participants was 22.96±2.9 years, with a range of 19-26 years. Linear regression analysis was employed to eliminate the effect of confounders, namely age, gender, place of residence and

its effects on their mental health. The overall mean DREEM score was 124.82, which reflects a predominantly positive outlook. This encouraging outcome indicates that, while certain aspects require enhancement, students generally regard their learning experiences favorably. This conclusion aligns with a similar investigation conducted at King Abdulaziz University Faculty of Dentistry (KAUFD) [20]. Among the assessed domains, the SPT domain received the

highest score of 31.5 out of 44, corresponding to 71.59%. This indicates a favourable assessment of teachers, as students value their instructional methods and accessibility. Such a high score reinforces the notion that supportive and effective teaching practices can substantially enrich the learning experience, even within the rigorous discipline of dentistry.

However, the relatively lower scores in other domains, such as SSSP and SPA, indicate that while students feel supported by their teachers, the overall atmosphere and social dynamics may contribute to stress and dissatisfaction. The moderate scores in domains like SPL and SASP suggest that students may still face challenges with the learning environment, including the balance between academic expectations and personal well-being. These findings point to a need for targeted interventions to enhance other aspects of the educational experience, particularly in creating a more motivating and less stressful atmosphere for students.

Notably, the only item that received an average score above 3.5 was "I have good friends in this location," indicating that social support is one of the strongest positive aspects of the students' experience. This aligns with a previous study that emphasises the role of peer relationships in buffering stress and promoting emotional well-being among students [21]. The presence of a strong social network appears to be a critical factor in mitigating the challenges posed by dental education [21,22].

On the other hand, the lowest-scoring items reflect significant areas of concern. Specifically, the perception that "the teaching overemphasises factual learning," the lack of motivation generated by the academic atmosphere and the imbalance between enjoyment and stress highlight deficiencies in the educational environment. These low scores suggest that students find the curriculum overly focused on rote memorisation, lacking engagement and motivation and overwhelmingly stressful. These factors could contribute to negative psychological outcomes, such as anxiety and burnout, as seen in the overall student population [23,24]. These findings highlight the challenges faced by dental students and a shift towards a more holistic and engaging curriculum could mitigate these issues, fostering better mental health and academic success.

The comparison of the DREEM domain scores between different demographic groups further revealed that female dental students had a significantly more positive perception of their teachers than male students. This gender difference may reflect varying expectations and experiences in the learning environment. However, this discrepancy also calls for a closer examination of male students' perceptions and how teaching practices may need to be adjusted to meet their needs better. Female students were found to report higher satisfaction and confidence regarding teachers and teaching. Similar findings were obtained in a study of complex dynamics in perceptions of teaching, where female students had a more favourable view of their educational experience; male students also found value in their interactions with faculty [25]. However, the present results were contrary to studies conducted in Jeddah and Jazan in Saudi Arabia, which did not find significant differences between male and female students in their perceptions of their teachers [13,26].

The regression analysis showed that all the DREEM domains were significant predictors of anxiety, EE, Cy and PE. Shahzad S and Wajid G found a similar relationship between the learning environment and burnout variables [27]. The study results suggest that while the overall perception of the educational environment may not directly influence anxiety levels, other aspects of the academic experience—such as EE, Cy and PE—are more closely linked to mental health outcomes. The strong correlation between these factors and burnout indicates that addressing emotional stressors in the academic setting could be key to reducing burnout among dental students. The results suggest that while teachers play a

crucial role in shaping the learning experience, other elements, such as the curriculum, atmosphere and peer relationships, may have a stronger impact on how students view their professional growth.

Limitation(s)

Stratification by the year of study was not included due to a very small number of representative samples in each group. While confounding factors such as age, gender, place of residence and family monthly income were controlled during the analysis, there remains a possibility of residual confounding due to unmeasured or unaccounted-for variables, such as individual coping mechanisms, personal circumstances and variations in teaching methodologies. Additionally, the reliance on self-reported data may have introduced recall or response bias, which could impact the accuracy of the findings. The results of the study cannot be extrapolated to a broader perspective, as this is a preliminary-level analysis.

CONCLUSION(S)

The findings of the current study underscore the need for reforms in dental education, particularly for students who have a generally favourable perception of their educational environment. Creating a more supportive, engaging and less stressful academic environment is essential. Strategies to reduce the over-emphasis on factual learning, foster a motivating atmosphere and provide a better balance between enjoyment and academic stress could significantly improve students' mental health outcomes. By addressing these key areas, educational institutions can help mitigate the prevalence of anxiety and burnout among dental students, leading to a healthier and more productive academic experience.

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