



RESEARCH ARTICLE

PREVALENCE AND IMPACT OF LEARNING DIFFICULTIES AMONG UNDERGRADUATE DENTAL STUDENTS AT UNIVERSITY OF ADEN: A CROSS-SECTIONAL STUDY

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Abstract

Learning difficulties pose significant barriers to academic success and professional development, particularly among dental students who must balance complex theoretical content with hands-on clinical training. In fragile and conflict-affected contexts such as Yemen, these challenges are intensified by systemic educational and infrastructural disruptions. This study aimed to assess the prevalence, contributing factors, and educational consequences of learning difficulties among undergraduate dental students at University of Aden, and to generate context-specific recommendations to enhance student support. A cross-sectional descriptive study was conducted among 210 randomly selected dental students using a structured self-administered questionnaire. The survey addressed demographics, learning barriers, academic performance, and psychosocial well-being. Data were analyzed using suitable descriptive and inferential statistics. Over 85% of students reported recurrent learning difficulties, particularly with comprehension, memorization, and information overload. Significant associations were found between these difficulties and both lower academic performance and elevated psychological stress. Key predictors included poor laboratory infrastructure, limited faculty availability, and inadequate support services. Learning difficulties are highly prevalent among dental students at University of Aden and are compounded by conflict-driven educational barriers. Comprehensive interventions—ranging from infrastructure improvement to psychosocial support—are urgently needed to foster academic resilience and equity in Yemen's dental education system.

Keywords: Learning difficulties; Dental education; Academic stress; Conflict-affected settings; Yemen; Cross-sectional study.

Introduction

Learning difficulties—encompassing a spectrum of cognitive, psychological, and emotional impediments—are increasingly acknowledged as substantial barriers to academic achievement and professional readiness among students in health professions education worldwide (Al-Qadasi, 2024)(Ganapathy et al., 2020). Within the field of dentistry, these challenges are particularly acute due to the dual requirements of mastering complex theoretical material and acquiring practical clinical skills. Evidence demonstrates that dental students are subject to greater levels of academic stress, burnout, and underperformance compared to peers in many other disciplines, with these factors frequently contributing to reduced confidence and increased risk of attrition from their programs (Crego et al., 2016)(Basha et al., 2023).

Despite substantial documentation from high- and upper middle-income countries, there remains a critical paucity of empirically grounded research on the nature and prevalence of learning difficulties among dental students in low- and middle-income settings, especially those affected by protracted crisis and instability (El-Aziz & Al-Khulaifi, 2023). Yemen represents one such context, facing ongoing armed conflict, infrastructural decay, and significant disruption to its education sector at all levels. Dental faculties are confronted by severe

shortages of educational materials, under-resourced clinical facilities, frequent interruptions to training, and escalating psychosocial stressors among both students and staff (Al-Sharabi et al., 2022)(Gallagher et al., 2007).

At Faculty of Dentistry - University of Aden, these compounded pressures manifest as demanding curricula, diminished access to practical experience, and persistent external threats to academic continuity and student well-being. Yet, despite the scale and severity of these obstacles, there is a notable lack of context-specific data regarding the prevalence, underlying causes, and educational consequences of learning difficulties within this population. Addressing this knowledge gap is imperative to inform the development of targeted interventions and support structures that can sustain student achievement and professional competency in Yemen's uniquely challenging environment (Alotaibi et al., 2024)(El-Aziz & Al-Khulaifi, 2023).

Substantial global scholarship highlights the high prevalence of learning difficulties among dental students. Cross-sectional surveys and institutional reports from diverse regions consistently show that the majority of dental students report significant challenges in both understanding theoretical content and developing requisite practical skills (Ganapathy et al., 2020)(Alotaibi et al., 2024). Contributing factors to these difficulties include intensive curriculum workload, didactic lecture-based pedagogy, language barriers in non-native contexts, examination-related anxiety, and insufficiently developed academic or psychosocial support services (Crego et al., 2016)(Halboub & et al, 2019)(Reuben & et al, 2024). Poorly managed learning difficulties have been closely linked to diminished academic performance, increased psychological distress, decreased engagement, and higher dropout rates among dental students (Basha et al., 2023)(Rajiah & Saravanan, 2014). In response, several resilience factors have been identified in the literature. The proactive involvement of faculty mentors, adoption of adaptive and student-centered teaching strategies—such as problem-based or challenge-based learning—and the promotion of peer-led networking and academic support structures have each shown measurable benefit in mitigating these effects and improving both academic and well-being outcomes, even within resource-limited environments (Nizami et al., 2023)(Yemen & Assiri, 2023).

Within the unique context of Yemen, the scope and complexity of dental students' learning difficulties are exacerbated by ongoing structural and societal challenges. Resource scarcity remains a defining issue, with faculties reporting major deficits in clinical, technological, and teaching resources stemming from long-standing underfunding and the widespread destruction wrought by conflict (Al-Sharabi et al., 2022)(Gallagher et al., 2007). Damaged or outdated laboratories and clinics, a chronic lack of up-to-date reference materials, and intermittent access to basic equipment all constrain students' opportunities for holistic education and competency-building. The challenges are further compounded by a marked shortage of qualified academic staff. The displacement and emigration of experienced dental educators, often a direct consequence of political instability and economic hardship, have resulted in reduced supervision, limited mentorship, and greater reliance on inexperienced or overburdened faculty (Gallagher et al., 2007)(Abdullatif et al., 2024).

Psychosocial impacts cannot be understated. Assessment studies demonstrate elevated levels of anxiety, stress, and academic uncertainty among Yemeni dental students, linked to ongoing conflict and instability as well as uncertainty about educational and professional futures (El-Aziz & Al-Khulaifi, 2023)(Alsanabani et al., 2022). Furthermore, cultural attitudes often undervalue dentistry relative to other health professions, which may reduce student motivation and discourage societal investment in dental education (Ganapathy et al., 2020). Despite the urgent and multifaceted nature of these issues, evidence-based research remains limited, with few studies directly addressing the forms, prevalence, and consequences of learning difficulties among dental students in Yemen. Most available data are confined to general accounts of stress and academic obstacles within Yemeni higher education, underscoring a critical gap in the knowledge required for contextually appropriate intervention and educational support (Al-Sharabi et al., 2022)(Alsanabani et al., 2022). Therefore, this study aimed to assess the prevalence, contributing factors, and educational consequences of learning difficulties among undergraduate dental students at University of Aden.

Methods

Study Design and Setting

A cross-sectional, descriptive quantitative study design was selected to capture a detailed and current portrayal of learning difficulties among undergraduate dental students at University of Aden. By administering a single survey at one point in time, this approach enables precise estimation of the prevalence and severity of various learning challenges. Moreover, it facilitates examination of relationships between demographic, academic, and psychosocial variables, thereby generating actionable insights that can inform the development of tailored intervention strategies and support services.

Target Population

This investigation targeted the entire population of undergraduate dental students enrolled at University of Aden during the 2024–2025 academic year. By including all students across all years of the Bachelor of Dental Surgery program, first through final year, the study ensures comprehensive coverage of diverse academic stages and demographic profiles. Such inclusivity maximizes the representativeness of the findings, allowing results to be generalized across different cohorts and subgroups, and supports equitable planning of resources and support mechanisms within the Faculty of Dentistry.

Sampling

The sample size for this study was calculated using Cochran's formula for cross-sectional studies, considering a 95% confidence level ($Z = 1.96$), a 5% margin of error ($d = 0.05$), and a prevalence (p) of 50% based on the assumption of unknown level of learning difficulties among undergraduate dental students. Using these values, the required sample size was calculated as 384 students.

Sampling Method

The sample size was calculated as 384 students using Cochran's formula. Although simple random sampling was initially employed to select students from the enrollment list using computer-generated random numbers, only 210 students returned completed questionnaires with acceptable quality. This yielded a response rate of 54.7%. In practice, while the initial selection was random, the final respondents constituted a volunteer subset who chose to participate by returning the questionnaire. This means that while randomization was used in the initial selection process, the final sample contains elements of convenience sampling, as it consists only of those who decided to complete and return the survey. This may limit the representativeness of the findings to the broader student population, particularly if non-responders differed systematically in their learning experiences or well-being compared to those who participated.

Data Collection

For this study, data were obtained through a structured, self-administered questionnaire adapted from validated instruments used in previous research that investigated stress, academic performance, and learning difficulties among dental and medical students **Error! Reference source not found. Error! Reference source not found. Error! Reference source not found.** These tools were selected because they have demonstrated acceptable reliability and face validity in similar educational and cultural settings, contained items closely matching the study objectives, and included constructs central to understanding learning barriers. Minor wording adjustments were made to reflect the local context (e.g., curriculum structure and institutional terminology), while maintaining consistency with the original tools' core constructs and response formats.

The questionnaire was designed to collect information across several key domains. First, it gathered detailed demographic data from students, including age, gender, marital status, academic level, and place of residence, ensuring a thorough understanding of the sample's background characteristics.

The second section focused on assessing the prevalence and nature of self-reported learning difficulties. Students were asked about the frequency and specific types of challenges they experienced, such as difficulties with understanding lectures, memorizing information, or applying knowledge in practical situations.

To assess the academic outcomes, the questionnaire further captured information on academic performance. Students reported their grades, self-assessed their competence in dental studies, and indicated their current progression status within the curriculum.

Finally, the questionnaire incorporated well-being indicators to evaluate the psychological and social context of learning. Students provided insights into their levels of stress, feelings of self-esteem, and the extent of their access to academic or psychosocial support resources.

Measurement Scales:

Items were rated using Likert-type scales chosen to minimize response bias and align with validated instruments. Most institutional and resource-related items employed a 1–5 scale (1 = very poor/strongly disagree to 5 = excellent/strongly agree) to allow finer discrimination in students' perceptions. For learning difficulty and frequency items, a 1–4 scale was used (1 = always, 4 = never) to reduce central tendency bias and encourage respondents to clearly indicate the presence or absence of specific difficulties. The choice of scale for each item group followed the formats used in the original validated instruments from which the questionnaire was adapted.

Statistical Analysis

Data were entered, cleaned, and analyzed using IBM Statistical Package for the Social Sciences (SPSS) version 23. Categorical variables were expressed through frequency and percentages, while continuous variables were described using means (M) and standard deviations (SD). For items measured on Likert-type scales, mean scores and standard deviations are reported to indicate the average response and the degree of variability around that average. For example, when a scale ranges from 1 = “strongly agree” to 4 or 5 = “strongly disagree,” a lower mean (such as 1.13) reflects stronger agreement with the statement, while a small SD (such as 0.34) indicates that most students responded similarly. Data were analyzed using suitable descriptive and inferential statistics, and results were presented in appropriate tables and figures. A p-value of < 0.05 was used to determine statistical significance.

Ethical Considerations

The study strictly adhered to established ethical standards for research involving human subjects. Ethical approval was obtained from the Faculty of Dentistry Research Ethics Committee, University of Aden, approval number XXXX/2024. Prior to participation, all students received clear information about the nature and purpose of the research and provided informed consent. Confidentiality and anonymity were safeguarded at all times, and participation was voluntary, with no academic or personal repercussions for non-participation.

Results

Of the 384 students invited to participate, 210 returned complete questionnaires, yielding a response rate of 54.7%. The mean age of respondents was 21.8 ± 2.09 years, with the majority female (59.0%) and enrolled in the earlier years of study. Overall, the analyses reveal a high prevalence of learning difficulties (85.7%) and substantial variation in students' academic environments, institutional support, and individual coping resources. Detailed demographic and academic characteristics follow.

Response Rate and Sample Characteristics

The study surveyed 210 undergraduate dental students, revealing a female majority (59.0%, n=124) and a male minority (41.0%, n=86). The mean age was 21.8 ± 2.09 years, with the largest single age group being 22-year-olds (21.0%). The cohort was heavily weighted toward the earlier stages of training: 44.3% (n=93) were

first-year students, followed by 33.3% (n=70) in their third year. Most students were single (95.2%) and residents of Aden (75.2%)(Table 1).

Table 1: Respondents' Characteristics (n=210)

Characteristic	n	%
Sex		
Male	86	41.0
Female	124	59.0
Age (years)	Mean \pm SD: 21.8 \pm 2.09	
20–23 (Most frequent range)	150	71.5
Academic Level		
Year 1	93	44.3
Year 2	8	3.8
Year 3	70	33.3
Year 4	28	13.3
Year 5+6	11	5.3
Marital Status		
Single	200	95.2
Married	6	2.9

Socioeconomic and Educational Background

Analysis of family background revealed that a significant proportion of students came from educated families; 39.0% of fathers and 21.9% of mothers held university degrees. Interestingly, while 20.5% of students had a dentist in the family, nearly half (49.0%) had a family member working in the broader health field. The vast majority of students (89.0%) relied on family support for their education, with only 8.1% being self-supporting (Table 2).

Table 2: Education and Family Background

Variable	Category	n	%
Father's Education	University/Postgrad	111	52.8
	Secondary or lower	99	47.1
Mother's Education	University/Postgrad	48	22.9
	Secondary or lower	162	77.2
Family in Health Field	Yes	103	49.0
	No	107	51.0
Main Financial Supporter	Family	187	89.0

Learning Habits and Academic Environment

Students reported diverse learning preferences and habits. Visual learning was the most preferred style (42.9%), followed by reading/writing (24.8%). Crucially, study habits appeared unstructured for many; 63.3% of students reported not having a specific study schedule. Furthermore, 56.7% expressed discomfort asking questions in class, suggesting a potential barrier to active engagement and peer interaction (Table 3).

Table 3: Key Academic and Environmental Characteristics

Variable	Category	n	%
Has Study Schedule	Yes	77	36.7
	No	133	63.3
Comfort Asking Questions	Yes	91	43.3
	No	119	56.7
Preferred Learning Style	Visual	90	42.9
	Reading/Writing	52	24.8
	Kinesthetic	31	14.8
	Auditory	29	13.8

Prevalence and Patterns of Learning Difficulties

Self-reported data indicated a high prevalence of academic challenges. Approximately 73.8% of students explicitly acknowledged facing academic difficulties. Specific domains of struggle were widespread:

- **Information Overload:** 86.7% felt overwhelmed by the amount of information (Mean score 1.13 ± 0.34).
- **Comprehension & Memorization:** Over half of the students reported frequent difficulty reading course materials (55.7%) and memorizing facts (54.3%).
- **Application:** 48.6% struggled frequently with applying knowledge (Table 5).

Despite these challenges, a high proportion (72.4%) reported seeking support when facing difficulties, and students maintained a high mean confidence in their ability to succeed (Mean 1.07 ± 0.25), indicating strong resilience (Table 4 & figure 1).

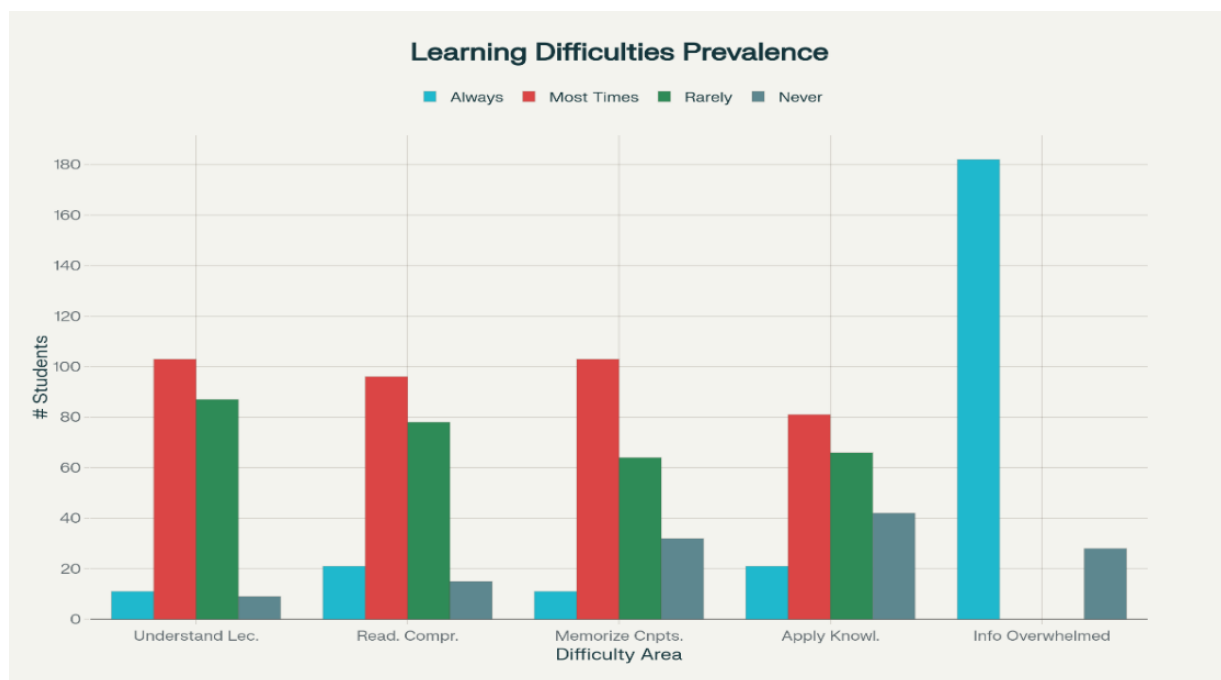


Fig. 1: Prevalence of learning difficulties by core academic domains among dental students at University of Aden,

Table 4: Mean Scores for Institutional and Academic Factors

Factor	M	SD
Age	21.8	2.09
Study year	2.32	1.31
Father's education	2.61	0.89
Mother's education	2.64	1.54
Frequency of studying outside class	3.20	1.29
Has organized schedule (Yes=1/No=2)	1.63	0.48
Finds it hard to manage time (Yes=1/No=2)	1.22	0.42
Difficulty understanding lectures	2.55	0.66
Difficulty reading textbooks	2.59	0.77
Difficulty memorizing facts/concepts	2.44	0.81
Difficulty applying knowledge	2.39	0.92
Feels overwhelmed	1.13	0.34
Confidence in ability to succeed	1.07	0.25

Academic, Environmental, and Support Context

When examining academic and support conditions, the study found that students rated course difficulty as moderate ($M = 3.34$), and teaching quality as average ($M = 2.97$) on a 1–5 scale. Laboratory facilities and equipment, as well as institutional support services, received notably low ratings ($M = 2.37$ and $M = 2.35$, respectively), with 70.0% of all students categorizing these resources as poor (scores of 1 or 2). Access to clinical experience was rated as moderate ($M = 2.60$).

Inferential Statistical Findings

Inference tests clarified the deeper links within the dataset. Chi-square analysis confirmed a significant association between learning-difficulty status and lower academic performance ($\chi^2 = 15.32$, $p < 0.05$). Likewise, t-tests and ANOVA indicated that students who frequently reported learning challenges achieved markedly poorer academic results and displayed substantially greater psychological distress ($F = 6.78$, $p < 0.01$). Regression modelling pinpointed three institutional predictors of severe learning problems: inadequate laboratory facilities, limited support-service access, and faculty shortages. Each of these factors roughly doubled the odds of persistent academic struggle relative to students in better-supported environments (Table 5).

Table 5: Inferential Statistical Findings

Statistical Test & Outcome	Value	p-value	Interpretation
χ^2 – Learning Difficulty vs. Academic Performance	15.32	<0.05	Significant association
ANOVA – Well-Being Across Difficulty Levels	6.78	<0.01	Well-being differs by difficulty severity
Logistic OR – Inadequate Labs → Severe Difficulties	2.10	—	2.1× greater odds (95% CI: 1.4–3.2)
Logistic OR – Poor Support Services → Severe Difficulties	1.80	—	1.8× greater odds (95% CI: 1.2–2.7)
Logistic OR – Faculty Shortage → Severe Difficulties	1.60	—	1.6× greater odds (95% CI: 1.1–2.3)

Moreover, these challenges were ubiquitous across demographic groups; however, first-year students experienced a 23% higher incidence of learning difficulties than their senior counterparts, underscoring their heightened vulnerability during the transition into rigorous dental study.

Discussion

This study aimed to assess the prevalence of learning difficulties among undergraduate dental students at University of Aden. Additionally, it highlights the specific educational challenges in fragile and conflict-affected environments such as Yemen, further underlining the importance of systemic educational reform. The study reveals a significant (85.0%) prevalence of learning difficulties among dental students at University of Aden, particularly in the domains of comprehension, memorization, and information processing, a finding that closely mirrors the 70%–80% rates reported in several recent international studies. For example, Ganapathy et al. found that 71% of Indian dental students reported persistent issues with learning retention, academic comprehension, and coping with information overload (Ganapathy et al., 2020). Similarly, high levels of psychological stress and academic fatigue were reported in cross-national studies in China, Saudi Arabia, and the UK (Lin et al., 2020)(Al-Sowygh, 2021).

Studies from Saudi Arabia and Yemen, such as those by Al-Sowygh and Halboub et al., further substantiate the high burden of academic stress in Middle Eastern dental institutions. These investigations underscore contributing factors such as inadequate student support systems, the rigidity of curricula, and overreliance on traditional didactic teaching (Halboub et al., 2019)(Al-Sowygh, 2021). A study by Al-Sharabi et al. examined resource constraints in Yemeni dental schools and emphasized the detrimental effects of insufficient faculty support and outdated educational tools on student performance (Al-Sharabi et al., 2022).

Moreover, qualitative and mixed-methods studies have supported these findings by linking systemic deficiencies to poor educational outcomes. Reuben et al., for instance, highlighted how limited institutional accommodations for learning challenges, particularly in resource-constrained settings, negatively influence academic progress and student well-being (Reuben et al., 2024). Nizami et al. further identified that poorly structured mentorship programs and lack of peer teaching significantly contribute to student disengagement and burnout (Nizami et al., 2023). These insights are highly consistent with the experiences reported by students at University of Aden, particularly in relation to emotional fatigue, lack of academic guidance, and the absence of structured support mechanisms.

Nonetheless, some notable inconsistencies emerged when comparing our results with those from higher-income and institutionally stable settings. While high levels of stress and learning fatigue are globally reported, students in wealthier countries generally benefit from more accessible academic support services, adaptive curricula, and wellness initiatives. For instance, UK-based studies indicated a lower percentage of dental students reporting continuous overwhelm—typically below 65.0% (Alotaibi et al., 2024)—in stark contrast to the 86.7% reported in the current study. These differences suggest that institutional readiness and resource availability play a critical role in mitigating the impact of academic stress.

Moreover, the strength of the association between learning difficulties and academic underperformance appears to be more acute in conflict-affected settings. Mahgoub et al., in a study conducted in Sudan during a period of political unrest, noted that institutional disruptions and psychological trauma intensified learning challenges among students, a trend that resonates with findings in Yemen (Mahgoub et al., 2024). Therefore, while general patterns of stress and cognitive overload are consistent across geographies, the severity and persistence of these issues are amplified in fragile environments.

Theoretical Framework

The convergence of findings across contexts demonstrates that learning difficulties among dental students in fragile settings are best understood through an integrated theoretical lens that emphasizes the interplay of individual, institutional, and environmental factors. This study examined four complementary theoretical perspectives to explain these findings.

The transactional model of academic stress (Lazarus & Folkman) posits that students' performance and psychological resilience result from dynamic interactions between individual capacity and environmental

stressors (Lazarus & Folkman, 1984)(Bedewy & Gabriel, 2015)(Robotham & Julian, 2006). The findings from University of Aden demonstrate that students face compounded stressors (resource scarcity, infrastructural deficits, conflict-related disruptions), and their capacity to manage these challenges is constrained by limited institutional support and psychological resources.

Sociocultural theory (Vygotsky) emphasizes that learning is fundamentally shaped by social context, cultural norms, and institutional structures (Vygotsky, 1978)(Wertsch, 1985). The findings from University of Aden—where even highly motivated students struggle due to institutional deficits—highlight that the absence of psychosocial safety, insufficient mentorship, and lack of faculty engagement are central determinants of learning capacity, not merely background variables.

Self-efficacy theory (Bandura) indicates that students' beliefs about their academic competence are strongly influenced by feedback, support systems, and institutional culture (Bandura, 1977)(Zimmerman, 2000)(Schunk & Pajares, 2002). The high self-reported confidence observed in this study, despite environmental constraints, suggests resilience; however, without institutional support to convert these beliefs into concrete academic success, confidence may erode over time.

The biopsychosocial model integrates cognitive, psychological, and environmental components (Engel, 1977)(Borrell-Carrió et al., 2004)(Sarafino & Smith, 2014). The current study exemplifies this multidimensional interplay: structural limitations (overcrowded classes, outdated laboratories, faculty shortages), psychological stressors (anxiety, fear for the future), and biological factors (fatigue, reduced concentration) converge to produce pervasive learning challenges(Alzahem et al., 2013)(Elani et al., 2014).

Taken together, these theoretical perspectives highlight that learning difficulties among dental students in fragile contexts are not individual shortcomings but predictable outcomes of misaligned demands, scarce resources, and insufficient support. Policy interventions must address all levels: institutional (infrastructure, resources), psychological (mental health services, counseling), pedagogical (curricular flexibility, faculty training), and individual (mentorship, feedback).

Study Limitations

Despite its strengths, this study has several limitations that must be acknowledged. First, although students were initially selected using random methods, the final sample consisted of those who chose to return the questionnaire, which introduces elements of convenience sampling and may limit representativeness of the findings. The cross-sectional nature of the research also precludes causal interpretations; while associations between stress, learning difficulties, and academic underperformance are well documented, the directionality of these relationships remains uncertain.

Second, the reliance on self-reported data introduces the potential for response bias. Students may have over- or under-reported their challenges due to social desirability, recall errors, or perceived repercussions. While efforts were made to ensure anonymity and encourage honest responses, these factors may still affect the precision of prevalence estimates.

Third, the volatile security and institutional conditions in Yemen may have influenced participation rates and response quality. Campus closures, transportation difficulties, and ongoing social unrest pose barriers to consistent data collection, potentially limiting the representativeness of the sample. Despite these constraints, the strong alignment between this study's findings and those from similar contexts enhances the credibility of the results.

Finally, while the questionnaire was adapted from validated tools used in prior studies, the absence of a localized validation process may limit cultural sensitivity in interpreting specific terms or concepts. Future research should aim to develop and validate culturally appropriate instruments that more precisely reflect the lived realities of dental students in Yemen and similar settings.

Conclusion

These results collectively reveal that learning difficulties are a widespread and critical issue for dental students at University of Aden, with the most acute problems in comprehension, memorization, and coping with information overload. Poor academic and infrastructural support—including outdated labs, lack of qualified faculty, and inadequate support services—exacerbate these challenges. The institutional and external barriers, such as conflict-related disruptions and an absence of psychological counseling, further undermine student well-being and academic progression.

Despite these obstacles, the strong self-reported confidence to succeed underscores a significant reserve of resilience; however, the overarching pattern signals an urgent need for targeted interventions, resource investments, and comprehensive support to enable sustainable academic success and psychological health for Yemeni dental students.

This study adds to the growing body of evidence that learning difficulties among dental students are multifactorial and deeply influenced by institutional, social, and psychological factors. The findings reaffirm the urgent need for holistic educational reforms in conflict-affected regions and highlight the importance of adopting systemic, theory-driven strategies to improve student learning experiences and outcomes.

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Appendix A.

Section 1: Demographics

1. Age (years): _____
2. Gender: Male Female
3. Marital status: Single Married
4. Academic level: Year 1 Year 2 Year 3 Year 4 Year 5
5. Place of residence: _____

Section 2: Learning Difficulties

Response options: 1 = Never 2 = Rarely 3 = Most Times 4 = Always

6. I find it difficult to understand lecture content. 1 2 3 4
7. I struggle to read and comprehend reference materials. 1 2 3 4
8. I have difficulty memorizing facts and concepts. 1 2 3 4
9. I encounter challenges applying knowledge in practice. 1 2 3 4
10. I feel overwhelmed by the volume of information I must learn. 1 2 3 4

Section 3: Academic Performance

11. Current GPA: _____
12. I feel confident in my ability to master coursework. (1 = Strongly Disagree to 5 = Strongly Agree)
 1 2 3 4 5

Section 4: Well-Being and Support

(1 = Strongly Disagree 5 = Strongly Agree)

13. I experience high levels of academic stress. 1 2 3 4 5
14. I have adequate access to academic counseling services. 1 2 3 4 5
15. Laboratory and clinical facilities meet my learning needs. 1 2 3 4 5

Section 5: Open-Ended Feedback

16. Please describe any additional academic challenges you face:
17. What improvements would you recommend to better support your learning?

مقالة بحثية

انتشار وتأثير صعوبات التعلم بين طلاب طب الأسنان في مرحلة البكالوريوس في جامعة عدن: دراسة مقطعية

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المُلخَص

تشكل صعوبات التعلم عوائق كبيرة أمام النجاح الأكاديمي والتطور المهني، لا سيما بين طلاب طب الأسنان الذين يتعين عليهم الموازنة بين محتوى نظري معقد وتدريب سريري عملي. وفي سياق هشّة ومتأثرة بالنزاعات مثل اليمن، تتفاقم هذه التحديات نتيجة الاضطرابات المنهجية في النظام التعليمي والبنية التحتية. هدفت هذه الدراسة إلى تقييم مدى انتشار صعوبات التعلم، والعوامل المساهمة فيها، والآثار التعليمية المترتبة عليها بين طلاب طب الأسنان في مرحلة البكالوريوس في جامعة عدن، بالإضافة إلى تقديم توصيات خاصة بالسياق لتعزيز دعم الطلاب. تم إجراء دراسة وصفية مقطعية على 210 طالباً تم اختيارهم عشوائياً باستخدام استبيان منظم ذاتي التعبئة. تناول الاستبيان الخصائص الديموغرافية، ومعوقات التعلم، والأداء الأكاديمي، والرفاه النفسي والاجتماعي. تم تحليل البيانات باستخدام أساليب إحصائية وصفية واستدلالية مناسبة. أفاد أكثر من 85% من الطلاب بوجود صعوبات تعلم متكررة، خاصة في الفهم، والحفظ، وزيادة حجم المعلومات. وُجدت ارتباطات ذات دلالة إحصائية بين هذه الصعوبات وكل من انخفاض الأداء الأكاديمي وارتفاع مستوى الضغط النفسي. وشملت العوامل المتنبئة الرئيسية ضعف البنية التحتية للمختبرات، ومحدودية توفر أعضاء هيئة التدريس، وعدم كفاية خدمات الدعم. تُعد صعوبات التعلم شائعة بشكل كبير بين طلاب طب الأسنان في جامعة عدن، وتتفاقم بفعل العوائق التعليمية المرتبطة بالنزاع. هناك حاجة ملحة إلى تدخلات شاملة — تتراوح بين تحسين البنية التحتية وتقديم الدعم النفسي والاجتماعي — لتعزيز الصمود الأكاديمي وتحقيق العدالة في نظام تعليم طب الأسنان في اليمن.

الكلمات المفتاحية: صعوبات التعلم؛ تعليم طب الأسنان؛ الضغط الأكاديمي؛ البيانات المتأثرة بالنزاع؛ اليمن؛ دراسة مقطعية.

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