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Silent struggles: a qualitative study exploring mental health challenges of undergraduate healthcare students

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Abstract

Background Mental health is a critical aspect of overall well-being, influencing how individuals think, feel, and perform. Mental health among healthcare students has become a major concern, drawing attention due to its profound impact on their welfare, academic performance, and ability to effectively interact with patients. This paper aimed to explore the experiences of undergraduate healthcare students facing mental health challenges at Qatar University. With a focus on understanding the factors contributing to mental health issues and exploring their coping mechanisms, the research also sought to identify students' recommendations for institutional support to improve their mental well-being.

Methods A qualitative approach using semi-structured face-to-face interviews was employed to collect data. A purposive sampling method was used to recruit students from five healthcare disciplines- Medicine, Dentistry, Pharmacy, Health Sciences and Nursing- who had self-reported mild to moderate depressive symptoms based on the Patient Health Questionnaire (PHQ-9) and Depression Anxiety and Stress Scale (DASS21). A total of 15 interviews were conducted, recorded, and transcribed verbatim, with thematic analysis used to identify key themes.

Results Several themes emerged from the interviews, including academic pressure, social isolation, anxiety, coping mechanisms, fear of failure, and stigma surrounding mental health support. Academic pressure was consistently reported as a major stressor, contributing to anxiety and emotional strain. Social isolation further exacerbated mental health challenges, while many students highlighted a lack of well-established coping strategies. Stigma related to seeking mental health support was a significant barrier, preventing students from accessing available services.

Conclusion The study highlights the mental health challenges faced by healthcare students, emphasizing the need for effective institutional mental health support. Addressing academic pressures, enhancing self-coping mechanisms and social support systems, and reducing the stigma around mental health care are essential steps toward improving student well-being.

Clinical trial number Not applicable.

Keywords Mental health, Healthcare students, Healthcare education, Qualitative study, Challenges

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Introduction

Mental health is a critical aspect of overall well-being, encompassing emotional, psychological, and social dimensions. It affects how individuals think, feel, and act, influencing their ability to handle stress, relate to others, and make choices [1, 2]. Understanding mental health, particularly in vulnerable populations such as healthcare undergraduate students, is essential for developing effective support mechanisms [3]. Mental health is defined by the World Health Organization (WHO) as a state of well-being in which an individual realizes their own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to their community [4]. Similarly, the Centers for Disease Control and Prevention (CDC) describes mental health as encompassing emotional, psychological, and social well-being, affecting cognition, perception, and behavior [5]. These definitions highlight the multifaceted nature of mental health, integrating functional capacity and the ability to contribute meaningfully to society.

Recently, there has been a growing acknowledgment of the increasing mental health challenges experienced by undergraduate students undertaking healthcare education, prompting apprehensions regarding their general well-being [6, 7]. Such challenges may include separation from home and lack of family support [6]. In the realm of healthcare education, the mental well-being of students is crucial in shaping the future success and resilience of healthcare professionals. Healthcare undergraduate students face unique stressors that can significantly impact their mental health. The rigorous academic curriculum, clinical responsibilities, and high expectations contribute to a high-pressure environment. Academic stress is a significant factor, as the demanding nature of healthcare education, with its intense coursework and clinical training, places students under considerable academic pressure [8]. This stress is often compounded by the competitive nature of healthcare programs and the continuous assessment processes [6, 9]. Financial concerns also play a crucial role, as the cost of healthcare education is substantial, leading to financial strain for many students [10]. This financial burden can exacerbate stress and anxiety, affecting their overall mental well-being [10, 11]. Additionally, sleep deprivation is a common issue among healthcare students. The demanding schedules often result in inadequate sleep, which is crucial for cognitive function and emotional regulation [12]. Sleep deprivation has been linked to increased levels of stress, anxiety, and depression [13]. Furthermore, healthcare students are frequently exposed to human suffering, illness, and death, which can be emotionally taxing. This exposure can lead to compassion fatigue and burnout, further impacting their mental health [14]. Lack of social support also plays a crucial role. Social support from families, friends, and the academic community can significantly influence students' educational experiences, positively affecting both their well-being and academic performance [15]. It is essential in buffering against stress, however, healthcare students often report feelings of isolation due to their demanding schedules and competitive environments [16, 17]. The stigma associated with seeking mental health care is a significant barrier as well [18]. Many healthcare students fear that admitting to mental health issues could harm their academic and professional prospects, leading to underreporting and untreated mental health conditions [19].

Research has consistently shown a high prevalence of mental health issues among healthcare undergraduate students. A study by Dyrbye et al. (2006) found that medical students experience higher rates of depression and anxiety compared to their peers in other fields [20]. Similarly, Goebert et al. (2009) reported that 12% of medical students screened positive for major depression, and 9.2% had probable mild/moderate depression, while 6% had suicidal ideation [17]. Another study surveying 1925 students in 3 specialties (medicine, dentistry, and pharmacy) of the University of Paris reported 55% anxiety and depressive symptoms amongst the students overall, and burnout in 42% of nonclinical and 65% of clinical students and residents, revealing elevated prevalences of psychiatric symptoms [21]. In dental students, a meta-analysis study proclaimed self-reported depressive symptoms (at least mild depression symptoms) concerning 29% of the students, with females presenting more depressive symptoms than male students [22]. Depression and anxiety are the most commonly reported mental health issues among healthcare students [23]. A systematic review indicated that the prevalence of depression among medical students ranged from 15 to 30%, while anxiety affected approximately 20–40% among medical students [24]. In the Middle East region, a study in Saudi revealed that about 45% of students reported having mild-to-severe depression [25].

Burnout, characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment, is also prevalent among healthcare students [26]. This phenomenon often arises from the demanding nature of healthcare education, which requires students to balance rigorous academic coursework, clinical rotations, and personal responsibilities. Overwhelm is a significant contributor, as students frequently report feeling inundated by the volume of material they must master in a short timeframe.

For instance, a longitudinal study found that the majority of medical students identified "feeling overwhelmed" as a primary precursor to burnout, with many citing the lack of time for self-care and relaxation

as exacerbating factors [27]. Case studies provide further insight into the lived experiences of these students. For instance, a recent study of medical students revealed a significant correlation between persistent burnout symptoms and increased rates of depression and anxiety over time [28]. Another study found that students experiencing severe burnout often struggled with disengagement from their studies and difficulty forming meaningful connections in their professional relationship [29].

Addressing the mental health needs of healthcare students requires a multifaceted approach, including institutional support, peer support, and individual strategies. Universities and colleges can play a pivotal role by providing accessible mental health services, creating a supportive learning environment, and promoting a culture of wellness [27–29]. The State of Qatar is one of the leading countries in the Middle East acknowledging the importance of mental health within its healthcare services, integrating it into primary care settings to meet the growing demand [30]. Despite this progress, there is a scarcity of research focused on the mental health issues faced by healthcare students in Qatar, especially those at Qatar University, who represent the prospective workforce and leaders of the Qatari healthcare system. A recent study exploring the frequency of mental health issues among healthcare students in medicine, dentistry, pharmacy, nutrition, biomedical sciences, nursing, and public health at Qatar University found that 37.7% of students self-reported mild depression symptoms, 25.5% moderate, 14.8% moderately severe and 10% severe symptoms [31]. This warrants further in-depth investigation into the potential factors contributing to mental health issues, understand their coping mechanisms, and gather student recommendations for better supporting their well-being.

The objective of this qualitative study was to explore undergraduate healthcare students' experiences with mental health challenges faced at Qatar University, allowing them to share personal stories and elaborate on their feelings, thoughts, and challenges, providing nuanced insights into their mental health struggles.

Methodology

Study design

A qualitative approach utilizing semi-structured, face-to-face interviews was selected to meaningfully explore students' experiences related to their mental health, and any recommendations they may have "in their own words". Utilizing a qualitative methodology can provide a deeper understanding of the coping mechanisms employed by healthcare students while exploring the cultural, social, and institutional factors specific to Qatar University. This approach offers a solid foundation for developing targeted mental health interventions and support programs. The phenomenological approach was used to understand individual experiences with mental health challenges. Phenomenology is a well-suited methodology for mental health research as it focuses on capturing individuals' lived experiences, and provides a platform to voices that are often marginalized or unnoticed [32]. The consolidated criteria for reporting qualitative research (COREQ) were followed to structure this write up [33].

Research ethics

Ethical approval was granted by the institutional review board at Qatar University (Approval Number: QU-IRB1797-EA/23). Participation in the study was voluntary, confidential, and anonymous. All participating students provided their consent, and anonymity was assured before they began the interviews.

Settings and participants

Undergraduate students from five different healthcare colleges at Qatar University, including College of Medicine (CMED), College of Dental Medicine (CDEM), College of Nursing (CNURS), College of Health Sciences (CHS) and College of Pharmacy (CPH) were invited to the interviews. A purposive sampling method was employed to recruit students who had previously participated in a screening quantitative study at the Health Sector at Qatar University. A total of 1,378 healthcare students were invited to participate in the screening process. Among the invited students, 270 completed the survey, comprising 227 females and 43 males. Participants were invited to provide their email address if they agree to be contacted for the face-to-face interviews. Students who self-reported mild to moderate depression, anxiety, and stress symptoms were eligible to participate in the interviews. Students self-reporting severe symptoms were excluded from the invitation to the interviews and were directed to the appropriate professional counseling services.

Students who had initially completed the patient health questionnaire (PHQ-9) [34] and the Depression, Anxiety, and Stress Scale (DASS21) [35] survey were invited to participate in the one-to-one interviews provided they had added their institutional email address to be contacted.

Target participants received detailed information via email explaining the aim and objectives of the qualitative study, reassuring them that discussions in the interviews would be highly confidential and anonymized prior to analysis. The Department of Student Affairs acted as the gatekeeper for sending the invites. A reminder was sent two weeks later.

The following inclusion/ exclusion criteria were applied:

Inclusion criteria

- Participants with mild- moderate symptoms (The PHQ-9 defines mild depression as scores of 5–9 and moderate as 10–14. For the DASS-21, mild depression, anxiety, and stress are scored at 10–13, 8–9, and 15–18, respectively, while moderate ranges are 14–20, 10–14, and 19–25).
- Undergraduate students enrolled in medicine, dentistry, pharmacy, nutrition, nursing, biomedical sciences, and public health at Qatar University.
- Above 18 years old.
- Able to communicate in English.

Exclusion criteria

- Students who have interrupted their studies or no longer actively enrolled in their academic program.
- Students with severe self-reported symptoms of depression, anxiety, and stress.

Data collection

Sociodemographic data were collected encompassing six variables: age, gender, nationality, college, year of study, and type of financial support. The interview sessions were held in a pre-arranged, easily accessible location that was convenient for all participants. The sessions took place in spacious, well-lit, and properly ventilated rooms within the Health Sector, ensuring a comfortable environment. At the beginning of the interview, participants were reminded about the background and purpose of the study, confidentiality, and ground rules. They were asked to carefully read the participant information sheet again and sign the consent form. It was made clear that the participant is free to withdraw from the interview at any point without having to declare the reason. Participants were made aware that once the recording was transcribed and data coded anonymously, it would not be possible to withdraw any transcripts/quotes. With participants' consent, all interviews were audio-recorded using Microsoft Teams (Teams_windows_x64, Version 1.4.0.35564).

Author AD carried out all the interviews, which lasted around 30 to 45 min and were audio recorded. AD is a female faculty member with extensive experience in student well-being and dealing with vulnerable population. She also has previous experience of carrying out qualitative research during her academic career. AD was also trained and calibrated with KA in advance to minimize bias in data collection.

A topic guide was created using insights from existing literature and contributions from the research team [36]. This guide was shaped by the Consolidated Framework for Implementation Research [37]. After conducting a few pilot interviews with volunteering students, the guide was refined for clarity through minor adjustments to the wording of questions and adding prompts (Table 1).

Due to the sensitive nature of the interviews, and the possibility of emotional distress during the conversation, it was agreed to conduct face-to-face interviews only rather than online. This was also the recommendation of the for ethical approval. Data collection took place at the university campus and was recorded using Microsoft teams (version 4.2.4.0) to help transcribe conversations in real-time. This would also ensure saving the interview recording on the password protected computer. This was conducted between November 2023 and March 2024.

Data analysis

Following the principles of data saturation in qualitative research, interviews were concluded after $n = 15$ interviews, as no new, significant information was obtained

Table 1 Interview topic guide

Questions and prompts
1. Could you tell me a bit more about yourself?
2. What is your understanding of mental illness?
3. Since starting your undergraduate healthcare program, what type of information have you received during your academic learning related to mental illness?
1. Do you feel you are experiencing mental health issues? If so, please share more details at your convenience: a) Nature of issue, duration, b) Impact on personal well-being, personal relationships with family and friends c) Impact on academic progress, social interactions at the university/ treatment sought.
1. In your opinion, what are the main contributory/precipitating factors for your mental health issues? Prompt: What makes you feel better/ worse
2. What coping mechanisms/ strategies do you use to remain calm and stable?
3. Do you feel comfortable discussing your mental health issues with friends, family, academic tutors, etc.?
1. Do you know about the mental health support available support at Qatar University? a) If yes (1), did you take advantage of them? b) Do you feel supported by your college? c) What could the university/ college do to make you feel better?
2. If not, what are the reasons for not accessing these support systems?

from additional data collection. Three students from each College agreed to be interviewed, reflecting a diverse range of healthcare disciplines. The mean age of participants was 20 (± 1.3) years old, all with a Muslim Arab ethnicity, as this forms the majority of the student body at Qatar University, with a mix of Nationals (Qatari) and International (Middle Eastern and North African) students. Students presented different years of study and different stages (clinical, pre-clinical and non-clinical) as outlined in Table 2 (Table 2). All interview data underwent verbatim transcription. The analysis employed structured coding procedures and thematic characterization of the coded Sect [38]. The lead researchers (KA and AD) meticulously analyzed the transcriptions, adhering to the coding reliability approach of thematic analysis. Both KA and AD independently executed the initial coding, utilizing both inductive and deductive methodologies, identifying relevant codes, and developing a structured codebook. Following the completion of the initial coding, the core analysis focused on the categorization of codes and thematic comparison [39]. Through consensus, both researchers finalized the coding, reviewed the patterns of shared meanings, and organized overlapping themes into a coherent list of defined themes.

Trustworthiness and rigor

To ensure the trustworthiness of the research process, several strategies were implemented. First, participants were invited to review the transcripts of their interview discussions to confirm the accuracy of their accounts and ensure their views, experiences, and opinions were correctly represented in the analysis. The analytical plan was established as a priori in the study protocol and mutually agreed upon by the research team, which included experts in qualitative research, interaction design, and external opinions. Any challenges encountered during the analysis were regularly discussed among the research team, and differences in interpretation were resolved by consensus. An audit trail was maintained to document any changes to coding and analysis. Additionally, the Standards for Reporting Qualitative Research were utilized to guide the reporting of this study [33].

In this study, the qualitative data rigor standards proposed by Chiovitti and Piran (2003) were implemented, focusing on credibility, audibility, and fittingness [40]. To enhance credibility, the researchers adhered closely to the data through word-by-word, line-by-line, and in vivo coding, effectively reflecting participants' experiences. Regular bi-weekly meetings were held to review all collected data and discuss analysis procedures and emerging concerns.

Auditability, defined as the extent to which another researcher can understand and replicate the methods to reach similar conclusions, was ensured by clearly documenting the research process and criteria used for selecting participants [40]. This comprehensive documentation included all decisions made throughout the study. Fittingness, which assesses the applicability of the study's findings to similar contexts, was achieved by linking the literature to each emergent category and delineating the research scope in terms of participants, location, and theme intensity. All coded data were reviewed by other authors during the coding process for external validation.

Results

This section presents the key themes and sub-themes that emerged from analyzing the interviews conducted with undergraduate healthcare students, exploring their experiences with mental health challenges (Table 3). The analysis revealed several important themes: academic pressure, social isolation, anxiety, coping mechanisms, fear of failure, and stigma around seeking mental health

Table 2 Sociodemographic information of participants

Student code	College	Level	Nationality	Stage
1	College of Medicine (CMED)	5	Qatari	Clinical
2	College of Medicine (CMED)	3	Non-Qatari	Pre-clinical
3	College of Medicine (CMED)	4	Non-Qatari	Clinical
4	College of Dental Medicine (CDEM)	5	Non-Qatari	Clinical
5	College of Dental Medicine (CDEM)	2	Non-Qatari	Pre-clinical
6	College of Dental Medicine (CDEM)	4	Qatari	Clinical
7	College of Nursing (CNURS)	2	Qatari	Non Clinical
8	College of Nursing (CNURS)	2	Non-Qatari	Non Clinical
9	College of Nursing (CNURS)	2	Qatari	Non Clinical
10	College of Health Sciences (CHS)	3	Qatari	Non Clinical
11	College of Health Sciences (CHS)	4	Non-Qatari	Non Clinical
12	College of Health Sciences (CHS)	2	Non-Qatari	Non Clinical
13	College of Pharmacy (CPH)	4	Non-Qatari	Pre-clinical
14	College of Pharmacy (CPH)	2	Qatari	Non Clinical
15	College of Pharmacy (CPH)	5	Non-Qatari	Non Clinical

Table 3 Key themes and sub-themes

Number	Theme	Subtheme
Theme 1	Academic Pressure and Stress	• Curriculum Challenges • Time Management Difficulties • Impact Over Time
Theme 2	Social Isolation and Loneliness	• Competitive Environment • Difficulty Building Relationships • Impact on Mental Health
Theme 3	Anxiety and Emotional Strain	• Exam-Related Anxiety • Future Concerns • Cumulative Impact
Theme 4	Coping Mechanisms	• Avoidance Strategies • Support Systems • Faith and Spirituality • Self-Help Challenges
Theme 5	Fear of Failure	• Pressure to Excel • Family Expectations • Personal Standards
Theme 6	Stigma Around Mental Health	• Fear of Judgment • Impact of Close-Knit Environments • Hesitation to Access Resources

support. The following subsections provide a detailed exploration of these themes, supported by direct quotes from participants.

Theme 1: academic pressure and stress

Academic pressure was one of the most frequently mentioned challenges. Students described how the demanding curriculum and constant assessments led to overwhelming stress. One participant expressed, *"From day one, the stress has been intense. It's not just about studying; it's about constantly proving yourself"* (Student 6, CDEM).

Another participant noted, "*The sheer volume of work is exhausting. There's always an exam or a deadline. It never ends, and that makes it hard to relax"* (Student 11, CHS).

This continuous pressure to excel academically led many students to feel constantly overwhelmed, impacting their mental well-being.

In relation to the onset/time factor of mental health issues, one participant shared, *"As I started, it was hard to handle the stress; there was too much pressure from year one. As we are progressing with time, we get accustomed to the stress, but it still sometimes becomes too much, and it gets the better of me"* (Student 15, CPH).

Another student echoed this sentiment, stating, *"The heavy content during preclinical years was very stressful. Once I started clinical practice, I felt a bit more relaxed, but the pressure during exams is always overwhelming, and as we approach graduation, I feel things get worse"* (Student 5, CDEM).

A clinical student from Medicine also stated, *"I would rather stay long shifts at night, interacting and dealing with complex patient cases, than sitting an exam"* (Student 3, CMED).

Theme 2: social isolation and loneliness

The impact of mental health on personal relationships seemed bidirectional. On one hand, a recurring issue among participants was the sense of social isolation, having implications on their mental health. Students frequently reported feeling lonely, often as a result of the competitive environment. One participant mentioned, "*It's hard to make real friends when everyone is focused on their own success. It feels like you're alone in this race"* (Student 2, CMED). In a similar vein, another student reflected on the competitive nature of their program: *"The environment feels very competitive. Everyone has their own groups, and sometimes it's hard to fit in. This makes me question if I'm in the right place*" (Student 14, CPH).

Another student reflected, *"I've never really had close friends here. I'm always feeling like an outsider, and it's tough to deal with that kind of loneliness on top of the academic pressure"* (Student 7, CNURS). The lack of close social ties often compounded the emotional burden, making it difficult for students to find comfort and support during stressful times.

On the other hand, participants perceived mental health status as a leading factor influencing their personal interactions with family and friends. One student reported, *"When I'm stressed and worried, I only feel like crying. I don't want to see my friends... not even my family, no one should see me weak"* (Student 4, CDEM).

Theme 3: anxiety and emotional strain

Anxiety was another key theme that surfaced in the interviews, particularly around exams and academic performance. Students frequently mentioned experiencing elevated levels of anxiety, often feeling consumed by

worries about their future. One participant remarked, *"Before every exam, I feel like I'm on the edge. It's not just stress; it's full-blown anxiety. I can't sleep, I can't focus, and I worry about what happens if I don't pass"* (Student 2, CMED).

A similar sentiment was shared by another student, who stated, *"The anxiety builds up over time, especially when I start thinking about how every grade counts for my future. It's exhausting, and sometimes it just becomes too much"* ((Student 14, CPH).

Another student mentioned the cumulative impact of anxiety on their well-being: *"I overthink a lot, especially when I get a bad grade. It spirals into feelings of inadequacy, making me feel unworthy and depressed"* (Student 12, CHS).

Theme 4: coping mechanisms

While some students reported struggling to cope with mental health challenges, others discussed the methods they used to manage their stress and anxiety. However, many students admitted that they did not have well-established coping strategies. One participant shared, *"I don't really have a way to deal with stress. I just keep going, but it's hard to keep up with everything"* (Student 8, CNURS).

Another student added, *"I try to distract myself by staying busy with other activities, but it's more like avoiding the problem than solving it. I still feel stressed even when I'm trying not to think about it"* (Student 1, CMED).

Unveiling methods used by students to manage stress and anxiety revealed family and faculty support. One participant stated, *"The only coping mechanism for me is my mum and bestie… they understand me and provide me with support I need"* (Student 10, CHS). Another student reported, *"When I'm stressed, I go to faculty XXX; she provides support and advise. I sometimes cry at her office… which makes me feel better"* (Student 6, CDEM). Moreover, a student believed that faith was the best coping mechanism, affirming, *"Every time I feel depressed, I pray… my strong belief in God helps me frame my emotions and empowers me… it is that sense of peace"* (Student 13, CPH).

Theme 5: fear of failure

The fear of failure emerged as a significant theme, with many students expressing a deep concern about not meeting academic expectations. One participant explained, *"I'm constantly afraid of failing, not just because of what it means for my grades, but because it feels like failure would ruin everything I've worked for"* (Student 4, CDEM).

This fear was exacerbated by the high expectations placed on healthcare students, both by themselves and by external factors. *"There's this pressure to be perfect, and anything less than that feels like failure. It's not just about passing; it's about excelling, and that's a huge burden to carry"* (Student 3, CMED).

Another student pointed "I want to make my family proud… failing is not an option for me or them" (Student 15, CPH). This was resonated by a health science student reporting *"I worked hard to be here… I cannot see myself disappointing my parents"* (Student 12, CHS).

Theme 6: stigma around mental health

Another important theme was the stigma associated with seeking mental health support. Many students expressed hesitation about reaching out for help due to fear of judgment from peers or faculty. One student stated, *"I know I need help sometimes, but I don't want people to think I'm weak or that I can't handle the pressure. So, I just keep it to myself"* (Student 10, CHS).

Another student echoed this sentiment: "*There's this unspoken rule that if you admit to struggling, it might affect how people see you, especially in a field like medicine where you're expected to be strong"* (Student 3, CMED). In addition, a participant also highlighted that stigma prevented them from accessing mental health resources that could potentially alleviate their struggles: "It's a small college, everyone knows each other… I cannot seek help and be known… they will think I am not capable of pursuing dentistry" (Student 5, CDEM).

Discussion

The findings of this study provide a comprehensive understanding of the mental health challenges faced by undergraduate healthcare students. The themes identified—academic pressure, social isolation, anxiety, coping mechanisms, fear of failure, and stigma—highlight the multifaceted nature of these challenges and the urgent need for more robust mental health support within academic institutions.

Academic pressure and stress

The academic pressure and stress faced by healthcare students is a well-documented issue, with numerous studies identifying it as a major contributor to stress, anxiety, and burnout [6, 24]. In this study, students consistently reported feeling overwhelmed by the demands of their coursework and the continuous assessment process, however, experiences did not differ based on college, or whether the participant is an early-year or final-year student, pre-clinical or clinical. This aligns with the findings of Voltmer and colleagues (2021), who noted that the high-stakes nature of healthcare education often leads to chronic stress and mental health issues among students [9]. Nevertheless, the current study contrasts with findings from Voltmer et al. (2021), who reported differential stress levels based on year of study [9]. This divergence

highlights the need for further investigation into how institutional factors, such as assessment structures and support systems, might buffer or exacerbate stress in different educational contexts.

The competitive environment, as highlighted by the participants, exacerbates this pressure, as students not only compete for grades but also for future career opportunities. The fear of failure is closely tied to these academic pressures, with many students expressing a deep concern about not meeting the high expectations placed on them. The literature supports this, with research showing that healthcare students are particularly vulnerable to perfectionism and fear of failure, which can have long-term consequences for their mental health [24]. Current findings suggest that the competitive environment and fear of failure—while consistent with prior literature—may be amplified in settings where resilience is culturally valorized over vulnerability, particularly in non-European educational settings. This underscores the importance of designing interventions that account for cultural and institutional nuances when addressing mental health challenges in healthcare education. The findings that academic pressure affects students uniformly across different years and colleges may reflect the unique educational system and cultural expectations in Qatar. Unlike in some Western contexts, where academic stress may vary based on the progression through a program, the standardized and high-stakes assessment practices prevalent in Qatar could contribute to a more uniform experience of pressure. Additionally, the cultural emphasis on academic achievement and familial expectations in the region may amplify the stress associated with failure, making it a critical area for intervention [31].

Social isolation and loneliness

Social isolation was another significant theme that emerged in this study. Many students reported feeling disconnected from their peers, which compounded their emotional struggles. This sense of isolation is reflective of the broader literature on healthcare students, which consistently points to the importance of social support in mitigating mental health challenges [17]. The competitive nature of healthcare programs often prevents students from forming close social connections, leaving them without the emotional support they need to cope with the demands of their studies [22]. Financial matters did not surface in this study as a perceived cause of stress, unlike findings from other research, which highlight financial strain as a significant contributor to mental health challenges among healthcare students [10, 25, 35]. Previous studies have shown that the cost of healthcare education can lead to increased stress and anxiety, with students often feeling overwhelmed by the burden of tuition fees and living expenses. For example, Roberts and colleagues reported that financial concerns were a major stressor for medical students, contributing to feelings of anxiety and depression [10]. Similarly, Hamasha and others found that students in Saudi Arabia who faced financial difficulties were more likely to report depressive symptoms [25] Click or tap here to enter text. However, in the context of this study, participants did not express financial concerns, which may reflect differences in financial aid systems or cultural factors specific to the region [41]. The lack of financial concerns reported in this study may highlight the unique context of Qatar, where extensive governmental or familial financial support for higher education might alleviate some of the stressors commonly noted in other settings. However, the prevalence of social isolation, even in this supportive context, suggests that competitive academic environments and cultural norms that prioritize individual success over collaboration could play a significant role in shaping students' experiences [42].

Anxiety and coping mechanisms

Anxiety was a pervasive theme in the interviews, with students frequently describing how the pressures of academic performance led to elevated levels of anxiety. This finding is consistent with the broader literature, which identifies anxiety as one of the most common mental health issues among healthcare students [24]. The lack of effective coping mechanisms reported by many students in this study is also a concerning finding. Research shows that students who do not develop healthy coping strategies are more likely to experience burnout and long-term mental health issues [19]. Healthcare professional students usually employ a variety of strategies to manage stress and anxiety during their studies [43–45] One common approach is seeking social support from peers, family, and mentors, which has been shown to alleviate stress by providing emotional comfort and practical advice [44]. Students in the current study affirmed that family and faculty support is an effective coping mechanism. Another method is practicing mindfulness and meditation, techniques that have gained popularity for their effectiveness in reducing anxiety and promoting mental well-being [46]. Students also widely use physical exercise to manage stress, as it helps to reduce cortisol levels and improve mood [45]. Time management and organization skills have been reported as crucial strategies, with students learning to prioritize tasks and balance their academic responsibilities to mitigate the overwhelming nature of healthcare programs [43, 47]. Additionally, some students turn to academic counseling services for professional support, utilizing therapy sessions or workshops on stress management techniques [48, 49]. Collectively, these methods are essential in helping healthcare

students cope with the high demands of their educational programs.

The current study uncovered faith as one of the coping mechanisms. Strong faith and spiritual practices have been identified as effective coping mechanisms for healthcare professional students dealing with stress and anxiety during their studies [50]. Research has shown that students who engage in religious or spiritual activities, such as prayers, often experience lower levels of anxiety and better emotional well-being [51]. Faith can provide students with a sense of purpose and meaning, helping them to reframe stressful situations as opportunities for growth, which in turn reduces stress [52]. These practices allow healthcare students to navigate the demanding nature of their studies with greater psychological stability and less emotional strain [50].

The fact that students in the current study reported being inexperienced with coping mechanisms suggests that health colleges could invest more in raising awareness, supporting students in understanding, and establishing individually tailored, appropriate coping mechanisms.

Stigma and barriers to mental health support

The stigma associated with seeking mental health support was another key issue identified by the participants. Many students expressed hesitation about reaching out for help, fearing that it would negatively affect their academic or professional prospects. This stigma is well-documented in the literature, with studies showing that healthcare students are often reluctant to seek mental health support due to concerns about being perceived as weak or unfit for the profession [17, 19, 24]. Beyond individual fears and internalized stigma, systemic and institutional factors play a critical role in perpetuating these barriers to mental health support. For example, students in smaller or tightly-knit programs may feel heightened concerns about confidentiality, fearing that seeking help would become widely known among peers and faculty. Sheldon and researchers (2024) conducted a mixed-methods study exploring the challenges medical students face in accessing mental health services. They identified systemic issues such as confidentiality concerns, fear of professional repercussions, and inadequate institutional support structures [53]. Likewise, Hawsawi et al. (2024) explored barriers to help-seeking among medical students, identifying systemic issues such as lack of time, fear of confidentiality breaches, and perceived stigma within the medical community [54]. Goebert et al., (2009) found that nearly a quarter of medical students experienced depressive symptoms, but many did not seek help due to concerns about how it would impact their professional image [17]. Similarly, Chew-Graham and colleagues (2003) highlighted that healthcare students frequently worry about the potential career repercussions of admitting to mental health struggles, leading to a culture of silence and untreated mental health conditions [19].

This internalized stigma is compounded by external pressures within healthcare education. As one participant noted, "In a field like medicine, you're expected to be strong". This notion of resilience, while essential, can discourage students from addressing mental health concerns, further reinforcing the stigma. Additionally, students in other healthcare programs, such as dental or nursing schools, may face the added challenge of privacy concerns. As one dental student remarked, "Everyone knows each other… I cannot seek help and be known," pointing to the fear of being labeled as unfit for the demanding profession.

The literature supports these concerns, noting that students in highly competitive environments are less likely to seek help due to perceived risks to their academic and professional futures [24]. The fear of being perceived as weak often outweighs the potential benefits of accessing mental health services, leading to untreated conditions and long-term psychological impacts. The aforementioned systemic barriers require attention to ensure that mental health resources are accessible, confidential, and normalized as an integral part of professional training. Without structural changes, including proactive mental health policies and visible advocacy from institutional leaders, the stigma surrounding mental health in healthcare education is likely to persist, leaving many students without the support they need.

Study recommendations

Based on the findings of the current qualitative study, the following recommendations can serve as valuable guidelines for educational institutions aiming to support the mental health and well-being of their healthcare students:

1. Institutional mental health support programs: The study highlights the need for universities to establish robust, easily accessible mental health support services, such as counseling and stress management workshops, tailored to the unique cultural needs of healthcare students. These services should address the academic pressures and emotional burdens students face. These workshops could be complemented by drop-in counseling services designed to provide support during peak assessment periods, such as finals or clinical competency evaluations.
2. Reducing stigma around mental health: The finding that stigma and confidentiality concerns prevent students from seeking help highlights the need for targeted initiatives to normalize help-seeking

behavior in small, tight-knit academic communities. For example, institutions could implement anonymous online mental health consultation platforms, ensuring that students can access support without fear of being identified by peers or faculty. Additionally, integrating mental health education into existing healthcare curricula could challenge cultural norms that valorize resilience over vulnerability and demonstrate that seeking help is an integral part of professional development.

3. Peer support and mentorship programs: Establishing peer support networks and mentorship programs can provide students with emotional and social support. These programs could help mitigate feelings of isolation and create a safe space for students to share their experiences and coping strategies. Institutions could create structured peer mentoring systems where senior students provide guidance to junior students on coping with academic and clinical pressures. Such programs should be embedded within academic schedules to ensure participation without adding to students' existing workloads.
4. Flexible academic policies: Educational institutions should consider adopting more flexible academic policies, such as adjusting workload expectations and offering mental health leave, to reduce academic stress. Such policies would allow students to balance their academic responsibilities with their well-being. Furthermore, reducing the weight of continuous assessments and incorporating more formative assessments could provide students with opportunities to learn without the constant pressure of performance.
5. Coping Mechanism Training: The finding that students are inexperienced with coping mechanisms calls for context-specific training that resonates with the cultural and religious environment of Qatar. Universities should provide targeted workshops and resources to help students develop effective coping strategies, such as mindfulness, time management, and resilience training. Teaching students how to manage stress can improve their long-term mental health and academic performance. Faculty members trained in culturally appropriate stress management techniques could lead these sessions, ensuring relevance to the students' lived experiences.
6. Faculty training on mental health awareness: Given the cultural context of Qatar, where faculty members may also hold implicit biases against vulnerability, it is essential to train faculty to recognize signs of mental health struggles and provide culturally sensitive support. Faculty members should receive specialized training on mental health issues and how to support students effectively. This training should equip faculty to recognize signs of mental health struggles and provide appropriate guidance or referrals to support services, fostering a more compassionate and supportive academic environment.

Limitations

The current study offers rich data in relation to perceived mental health, however, students who participated were those who self-identified as having mild to moderate depression, anxiety, and stress symptoms and were willing to discuss their mental health. This could introduce selection bias, as students with more severe symptoms or those reluctant to discuss their mental health might have opted not to participate. Moreover, the study was conducted within a single institution in Qatar, and the findings are shaped by the cultural, educational, and institutional context of that region. Therefore, further research in other regions or academic environments may be required.

Conclusion

The findings of this study underscore the significant mental health challenges faced by undergraduate healthcare students. These challenges are driven by workload, social isolation, anxiety, fear of failure, and stigma around seeking mental health support. By addressing academic pressure, social support, and stigma, educational institutions can cultivate an environment that fosters mental well-being. Implementing a combination of institutional support, peer support, and individual coping strategies can significantly enhance the mental health outcomes for this vulnerable population.

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Author contributions

Conceptualization: A.D., K.A., and N.A; Methodology/data collection: S.A., O.H., A.A., and A.D.; Data Analysis: K.A. and A.D., Original draft preparation: A.D., Reviewing and Editing: K.A., S.A., O.H., A.A, N.A. and A.D. All authors have read and agreed to the published version of the manuscript.

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Data availability

The data that support the findings of this study are not openly available due to reasons of sensitivity and are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

All methods were carried out in accordance with relevant guidelines and regulations (Declaration of Helsinki). All experimental protocols were approved by the Institutional Review Board (IRB) at Qatar University

(QU-IRB1797-EA/23 January 2023). Informed consent was obtained from all subjects and/or their legal guardian(s).

Consent for publication
Not Applicable.

Competing interests
The authors declare no competing interests.

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