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A Qualitative Analysis of Students' Perceptions and Experiences of Stressors and Well-Being in Dentistry

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ABSTRACT

Introduction: Well-being is increasingly regarded as an integral component of a graduating dentist's professional responsibility, yet studies demonstrate significant levels of stress and poor mental health in the dental student population. The aim of this qualitative study was to explore final-year dental students' perceptions of stressors in dentistry and their experiences of managing their individual well-being and supporting the well-being of their colleagues and patients.

Methods: A literature search was performed to guide the development of an interview framework which included questions centred around three higher domains based on self, peers and patients. Participants were randomly sampled and the interviews audio recorded and transcribed verbatim. An inductive-deductive approach was adopted for thematic analysis of the results.

Results: Fourteen interviews were conducted, revealing four themes and 15 subthemes. Students were acutely aware of poor well-being symptoms amongst themselves and their peers. Treating dental patients with mental illness was common but some students expressed uncertainties in managing these patients. The key stressors were assessments and clinical stress. Students frequently sought support from peers and half had received professional help. Barriers to approaching faculty staff were identified. The role of stigma in preventing students from openly sharing their well-being experiences was discussed.

Conclusion: A range of curricular and clinical stressors, and potential sources of support to manage these stressors, have been explored from the perspectives of final-year dental students. From these experiences, action points have been proposed to address knowledge gaps and enhance faculty-level wellness support for dental students.

1 | Introduction

A growing body of evidence has found that dental students experience significant levels of stress and poor well-being, with negative consequences on their physical health, academic performance and learning experience [1–4]. Symptoms of burnout, depression and anxiety in dental students and dentists have been associated with an intention to discontinue studies [5] or leave the profession [6], as well as greater engagement in maladaptive coping behaviours such as smoking and substance abuse [1, 2, 7].

Despite the harmful effects of poor well-being on both the individual practitioner and the delivery of patient care [8], several barriers to help-seeking and disclosure of mental health challenges have been identified in medical and dental student populations. These include concerns over confidentiality, fear of academic and career repercussions and perceived negative judgement from the faculty and peers [9, 10]. At the same time, codes of conduct from international professional bodies stipulate that dental practitioners have a professional responsibility to look after their mental health and that of their colleagues

[11–14]. In addition, given the prevalence of poor well-being in the general population with one in two individuals experiencing a mental health disorder in their lifetime [15], it is imperative that dentists are competent in the dental management of patients with such conditions, as has been recently outlined in standards for graduating dentists [16]. This may involve contextually sensitive communication, an understanding of the relevance of psychiatric disorders to oral health, and the ability to refer patients to the appropriate services for follow-up care. However, dental students have expressed low confidence in handling their patients' mental health [17], whilst less than a tenth of general dental practitioners referred patients with suspected mental health problems to a medical practitioner due to uncertainties about how to communicate with the patient on such topics [18].

Most of the existing research on stress and well-being in dental schools predominantly utilises quantitative measures [10, 19–21], which preclude a deep and contextual understanding of the underlying student perspectives in that environment. Moreover, there is a paucity of research on well-being undertaken directly by the peers of the participants, whose similar social standing and familiarity may create a more conducive environment to open and honest sharing compared to interviews conducted by faculty staff.

Therefore, the present study aims to collect individual narratives through peer-led interviews to qualitatively highlight key themes and contexts that have shaped final-year dental students' experiences of stressors and well-being during the BDS curriculum. The study also aims to explore dental students' ability to manage their own well-being and their attitudes and preparedness to support the well-being of their colleagues and patients. The findings will provide insight into how interventions can be considered for design at the curricular level to support dental student well-being and improve students' professional knowledge of recognising and responding to their own well-being needs and that of their colleagues and patients.

2 | Materials and Methods

This study follows the reporting guidelines of the consolidated criteria for reporting qualitative research (COREQ) (Appendix 1) [22]. Ethics approval was obtained from the institutional review board of The University of Hong Kong (HKU/HA HKW IRB, Reference number: UW 21–244).

A literature search of existing quantitative and qualitative studies of medical, dental students and practitioners' experience of well-being was performed to generate questions for the interview guide (Table 1). Questions were centred around three higher domains based on self, peers and patients to explore a more holistic framework than the usual focus on the individual. Thirteen studies were selected and guided the question development process (Table 1) [9, 23–34]. The questions were designed to elicit information that directly responds to the topics to be explored under each of the three overarching domains in a neutral, open-ended, and non-judgmental tone [35].

The interview guide, comprising a total of 33 questions, was piloted with regard to clarity and scope with one of the authors (MB) and two final-year students and clarifications and amendments were implemented. Pilot interviewing was performed with two fifth-year students to practice the interviewing technique and further improve the terminology and clarity of interview guide comprehension. Pilot test recordings were reviewed with MB, who is experienced in qualitative research, as a calibration and coaching exercise and to obtain feedback on the interviewers' skills (CC and EF).

2.1 | Participant Recruitment

The Bachelor of Dental Surgery (BDS) program is a 6-year course with students randomly assigned by the faculty into seven clinical groups in their freshman year. Students remain in these groups for clinical and paraclinical classes throughout the full-time degree, which consists of two pre-clinical years (Year 1–2) and four clinical years (Year 3–6) involving direct multidisciplinary patient care. Each group ranges from 10 to 11 students and consists of a similar number of students of each gender. A student list for each clinical group was obtained, and students from each group were alphabetically ordered. A random sequence was generated with an online random sequence generator for each clinical group. The Class of 2024 comprises a total number of 73 students. Two students from each clinical group were sent invitations to participate in the study following the random sequence generated. Informed consent was obtained for each participant. Participants were assured of the voluntary nature of their participation and that any answers provided would not affect their status in the program.

2.2 | Research Team

The research team consisted of two final-year dental students (CC and EF) with a special interest in dental student well-being. Their individual experiences and knowledge of the BDS program and clinical training helped guide the interview process and interpretation of the data to explore aspects of the student experience. Support and mentorship were provided by a clinical professor (MB) of the faculty with extensive experience in teaching undergraduate dental students, curriculum development and qualitative research methods. Due to the sensitive and personal nature of the topics explored, all interviews were conducted confidentially by the two student team members to ensure an open and honest peer sharing, without influence nor pressure from faculty staff. Anonymity and blindness were ensured and the audio recordings of the interviews were only accessible to CC and EF. In accordance with our institution's ethics policy, the interview data will be kept for 3 years after publication of the research.

2.3 | Data Collection

Written consent was obtained before the interview. All interviews were conducted by one of two trained female interviewers who were final-year dental students and known to participants (CC and EF). The interview duration ranged from 45 to 75 min and was conducted in English via a Zoom meeting (Zoom Video Communications Inc., Delaware, USA).

TABLE 1 | Interview Guide (Domains and reference origins, topics explored and questions).

Domain 1 and References:
Understanding final-year BDS students' stressors and well-being [23–28]

Topics Explored:
1. Dental students' well-being during the BDS curriculum and training
2. Students' well-being experience(s) in their relationships with colleagues, clinical tutors and nurses
3. Changes in the curriculum to improve student well-being
4. Potential learning topics to improve personal well-being

Experiences
1.1.1 **Have you experienced poor mental well-being during your BDS course?**
*YES → can you share how **frequently**?*
1.1.2 What were the stressors you experienced and how did they affect you? – can you share how severe?
(***Severity**: sleep, mood, ability to study/socialise*)?
1.1.3 Are you comfortable to share any significant events/factors relating to the BDS course that have affected your well-being? E.g. Curriculum, colleagues, staff, patients?
YES → how did these stressors relate to the curriculum or structure of the BDS course?
1.2.1 Have you ever shared your personal experiences of well-being with your colleagues?
YES → What was the context? (*what/when/why/how*)
*NO → Why not, how comfortable **would you feel** to do so? Have you shared with anyone else?*
1.2.2/1.1.4 If you have experienced (or were to experience) poor well-being, where did you (or would you) turn to?
(*Colleagues, tutors, CEDARS*, etc. - *or maybe not aware of anyone?*)
(*If Faculty staff not mentioned ➔ Would you approach anyone in the Faculty*, e.g., *personal tutor? Why/why not?*)
1.1.5 Have you ever sought mental health services on or off campus (e.g., counselling, hotlines, CEDARS)?
YES →Are you aware of these services? Did you experience any barriers to accessing/utilising these services? How useful were these?
*NO → **If** you were experiencing poor mental well-being, how comfortable **would you be** to seek help?*
1.1.6 Do you have any concerns about the mental health care provided by HKU?
Examples of potential concerns:
- *Availability, location, cost*
- *Confidentiality that may affect academic record, job prospects, ability to succeed in the course or career*

1.2.3 How would you describe your overall well-being in the context of your relationship with your colleagues?
May discuss: closeness and level of social support, competitiveness, tensions or conflicts
1.2.4 How would you describe your well-being in the context of your relationship with your clinical tutors? Personal tutors?
May discuss: stress/pressure, (*un*)*approachability, level of academic and personal support, anxiety/fear*
1.2.5 How would you describe your well-being in the context of your relationship with your nurses?
May discuss: stress/pressure, poor communication/attitude, lack of support, tension/conflicts

Perceptions
1.3.1 What is your perception of the Faculty's attitude towards BDS student well-being?
May discuss in the context of: Faculty's attitude to individual student well-being vs *overall well-being in the student body, attitude towards well-being in the curriculum/course structure*
Examples: whether well-being is prioritised, whether there is enough discussion about well-being, supportive environment/absence of judgement/repercussions to seeking help, enough promotion about where to seek help by Faculty
1.3.2 Do you feel that the BDS course has given you adequate training to manage your own well-being?
YES → What aspects of the BDS course and how was it helpful?
1.3.2 What strategies by the Faculty do you think should be considered to improve dental student well-being?
May discuss:
- *changes in the course structure*
- *flexible attendance policies for mental health leave*
- *in-house counsellors at PPDH*
- *survival guide*
- *workshops from CEDARS/NGOs on well-being*
- *sharing from practicing dentists/recent graduates*
- *mentoring/buddy system*
- *more support from staff/personal tutors* (*give details*)

1.4.1 Do you think there should be more topics integrated into the BDS curriculum about well-being?
YES → What kinds of topics should students learn about well-being? And how?
1.4.2 Do you think you have a professional responsibility to look after your own well-being, in terms of how it might affect your ability to deliver patient care?

Domain 2 and References:
Understanding BDS students' perceptions and experiences of supporting mental well-being of colleagues [9, 24–26, 28–32].

Topics Explored:
1. Professionalism and ability to support colleagues with poor well-being
2. Empathy towards colleagues
3. Misconceptions/prejudice about mental health
4. Potential learning topics to improve ability to provide colleague support

(Continues)

TABLE 1 | (Continued)

2.1.1 Have you ever noticed your colleague(s) experiencing poor mental well-being?
YES →
2.1.2 What were the signs you noticed?
2.1.3 How did you react/were you able to help in any way?
NO →
2.1.2 Do you think there are obvious signs and symptoms of a colleague with poor mental well-being? If so, what would they look like?
2.1.3 Have you ever intervened if a colleague started showing signs of poor mental well-being?
Are there any situations in which you would intervene if a colleague started showing signs of poor mental well-being?
2.1.4 Have your colleague(s) ever disclosed to you that they are experiencing poor mental well-being or mental illness?
YES → (*clarify if poor well-being or mental illness*)
2.2.1 How did that make you feel?
2.1.5 How did you react/were you able to help in any way?
NO →
*2.2.1 How **would** you feel if it happened?*
*2.1.5 How **would** you react?*
2.1.6 Do you think your colleagues would be likely to disclose anything to you if they were experiencing poor mental well-being? *YES ➔ Why?*
NO → Why not?
2.1.7 What about to staff in the Faculty e.g., personal tutor etc.?
YES → Why?
NO → Why not?
2.1.8 Do you think dentists have a responsibility to look out for colleagues' mental health?
YES → Why?
NO → Why not?
2.2.2 If a colleague told you they had a mental illness, would that affect your relationship with them?
(E.g. *would you think less positively of the colleague, regard him/her as less competent, reliable* etc.)
2.3.1 To what extent would you agree with the following statements? (1 = strongly disagree, 10 = strongly agree)
2.3.1.1 Mental illness is a personal choice
2.3.1.2 Mental illness is a sign of weakness/failure
2.3.1.3 Disclosing mental illness is attention-seeking
2.3.1.4 Someone can fully recover from a mental illness
2.3.2 Have you witnessed any of your colleagues/tutors/nurses speaking about mental illness in a prejudiced or discriminatory way? Or in a supportive or collegial way?
YES → How did that make you feel?
2.4.1 Do you feel that the BDS course has given you adequate training to support colleagues with their mental well-being?
YES → What training did you receive? What kind of learning topics or training would you like more of?
NO → What kind of learning topics or training would you have liked to have?

Domain 3 and References:
Understanding BDS students' perceptions and experiences of supporting mental well-being of patients [29, 33, 34].

Topics Explored:
1. Empathy and professionalism towards patients
2. Awareness of relationship between mental and oral health
3. Ability to treat patients with poor mental well-being
4. Potential learning topics to improve patient care with regard to mental well-being

3.1.1 How would you feel if your patient disclosed s/he had mental illness?
3.2.1 Do you know if mental illness can affect oral health?
YES →In what way?
3.3.1 Have you come across any patients in your training who have stated that they have mental illness?
What about patients who, from their medical history (e.g., from current medications), you have inferred may have mental illness?
YES → How has interacting with them changed your perspective?
3.3.2 How comfortable would you feel with treating patients with mental illness?
3.3.3 Do you feel like the BDS training adequately covers treating dental patients with mental illness?
YES → Why?
NO → Why not?
3.4.1 Would you find training on supporting the mental well-being of patients helpful?
YES → What kind of topics would you like such training to cover?
NO → Why not?
3.4.2 To what extent do you think that understanding mental illness will make you a better dentist?

Other Open-Ended Questions
Before we end the interview, do you have anything else to add?

Participants were encouraged to seek a quiet and private space to attend the virtual interviews, which were scheduled in the evenings or weekends after clinical sessions. Apart from the participant and interviewer, no other parties were present. All interviews were conducted between 5 January and 7 February 2024. Apart from the question guide, participants were invited to share anything else they would like to bring up at the end of the interview. They were later contacted with follow-up questions after the interview if further clarification of their responses was required and given the opportunity to comment on their transcripts.

Interviews were guided with a semi-structured approach with the interview guide of open-ended questions across the three domains: (1) Understanding final-year BDS students' stressors and well-being; (2) Understanding BDS students' perceptions and experiences of supporting mental well-being of colleagues (3) Understanding BDS students' perceptions and experiences of supporting mental well-being of patients (Table 1). Field notes and follow-up questions were also used to probe and gather further information from the participants as required. All discussions were audio recorded with Zoom Version 5.17.11, transcribed verbatim in Zoom and verified in duplicate by the interviewers manually. No repeat interviews were conducted. All personal identifying information was removed during the transcription process to ensure anonymity and blindness. Data saturation was reached at the fourteenth interview when new participants did not contribute further information.

2.4 | Thematic Analysis

Thematic content analysis was performed for each interview with Quirkos Version 2.5.3 (Quirkos, Edinburgh, United Kingdom). Data familiarisation and line-by-line coding were performed by CC and EF by dual analysis and reviewed with MB to confirm the analysis and resolve differences in interpretation. An inductive-deductive approach was used to identify key themes and subthemes from the data [36, 37]. Dual and independent open coding of three data sets was first performed by CC and EF, then reflexively discussed with MB, and this process repeated over several meetings until all data sets had been discussed in-depth and a consensus on interpretation was achieved. Related codes were subsequently clustered and organised under analytical categories, leading to the development of themes and subthemes, derived from the participants' words or the interpretation by the researchers. The researchers strived to avoid being governed by their own pre-structured understanding and maintained a self-reflective attitude with open discussions to consider alternative interpretations and influences on the coding process.

3 | Results

Seventeen final-year BDS students were invited to attend interviews of which three declined; the first expressed a lack of interest and the latter two did not feel comfortable to share personal experiences on this topic. Interviews with 14 students were completed by the time data saturation was reached. From the thematic content analysis, four themes and 15 subthemes were identified for this paper, as shown in Table 2. An additional theme, 'Strategies to Improve Well-being', was also identified and will be reported in a separate paper.

3.1 | Awareness and Understanding of Mental Well-Being

3.1.1 | Signs and Symptoms of Individual Well-Being

All students shared a range of experiences consistent with symptoms of stress and burnout [38]. The main signs of poor well-being were 'tiredness' and 'fatigue' (P5, P1, P7, P6, P4), which was usually due to 'being unable to sleep' (P5, P9, P3, P2). Poor sleep quality was directly linked to dental studies in several students: 'I sleep and I dream of working in the clinic, and then I open my eyes and I have to go to clinic, I feel like I didn't sleep at all' (P14), and 'when I was in Year 5, I had several days of insomnia because of patient issues' (P10).

Students reported the workload would impact their sleep and cognitive well-being. Participant 6 shared that her tiredness impacted her sleep: 'I either would knock out like immediately when I get home because I'm so tired, or I would have like what I think people called "revenge bedtime procrastination", where I feel like I've spent so much of my day and time trying to study and keep up with BDS that I just need more time to...de-stress...I would sleep late and the next day I would show up super tired, and then it kind of just repeats' (P6). The feeling of not being able to take mental breaks from dental school was reiterated by several students who felt stressed 'even after the lesson ended' (P10), 'I feel like I am staying in clinic for 24 h. My brain is just feeling like its non-stop working at times' (P14).

Students' physical tiredness negatively impacted their ability to pursue extracurricular interests: 'After I would come back from like classes or clinic, I would just be too tired to do anything else,

TABLE 2 | Themes and Subthemes.

Themes	Subthemes
1. Awareness and understanding	1.1 Signs and symptoms of individual well-being 1.2 Signs and symptoms of well-being of peers 1.3 Mental health of patients 1.4 Professional responsibility
2. Support	2.1 Receiving peer support 2.2 Providing peer support 2.3 Faculty-level support 2.4 Professional support 2.5 Other support
3. Stressors in BDS	3.1 Curricular stress 3.2 Transitional stress 3.3 Clinical stress 3.4 Interpersonal stress
4. Stigma	4.1 Internal stigma 4.2 External stigma

and just want to rest up' (P1), 'I lost motivation to keep going on my hobbies' (P2).

The busy workload of a hands-on clinical programme impacted students physically and emotionally. Students expressed having insufficient time: 'I don't even have time to have lunch, and also for sleep' (P7), 'we don't even have time to go for lunch sometimes' (P11). Skipping meals for classes led to physical health consequences such as abdominal pain (P14) or weight loss (P6). The perceived lack of time brought students heavy internal pressure and guilt: 'I constantly have a feeling that I should not rest, or I should not take time off from any school work...even after school, I feel that my time should be spent on preparing for clinical cases, studying, reading papers, textbooks and this pressure is kind of suffocating and affecting my rest as well...even on weekends I also have the pressure that I should not spend time doing other things, like when I am not studying, I would feel guilty that I'm not preparing for my work, and I just feel really bad about this' (P14).

Adverse events related to students' clinical practice and studying had significant impact on their physical and emotional well-being. Students reported that after stressful events such as when the 'clinic suddenly goes wrong' (P5) or 'failed...exams' (P6), students noted changes in 'mood' (P9, P5) of varying degrees, from feeling 'quite nervous' (P4) to 'the pressure is just enormous... it's just destroying my whole personality' (P14). Several students expressed a loss of 'self-confidence' (P6) or 'doubted my abilities' (P2), 'doubtful of your own skills and ability to be a good dentist' (P12).

Low motivation to go to school was also reported: 'My attitudes to go to school, it wasn't the best, it was quite difficult to go to school sometimes' (P1), 'I just feel like stress going to school and having to think about it' (P5), 'I remember some days that I couldn't even leave my bed' (P2).

A student reported being clinically diagnosed with 'depression' which affected his ability to concentrate: 'I couldn't really focus at school', 'in the lectures and also during briefings, seemingly I was present, but actually whenever people talked... their words just fly by, so I couldn't really absorb any new information...my performance got worse. So basically, everything like socialising, studying, basic daily life activities were also affected' (P2).

3.1.2 | Signs and Symptoms of Well-Being of Peers

Tiredness and low motivation were the most frequently reported sign of poor well-being in peers: 'I feel like they are just very tired every day' (P10), 'exhausted' (P6), 'low mood, just low energy in general' (P14), 'lack of interest' (P5), 'having a bad day... don't want to do anything' (P11), 'don't really care about what's going on...don't really care if their patient cancels... feel like giving everything up and they lose the interest that they first had coming to dentistry' (P8), 'they just came to school rather listless' (P9). This frequently affected performance in school and in clinics, as peers were 'not really listening during clinics, not listening in class' and they may have 'poor attendance' (P5), 'could not really concentrate on studying' (P7), 'skip class' (P1, P6), 'bad attitude to patients' (P9). Emotional changes were also mentioned, including 'poor mood' (P5), 'more tense than usual...smile less...just break down and cry' (P12), 'not their usual selves' (P9), and 'lose their temper' (P4). One student noted that her friends were 'not eating properly' (P14). In more severe cases, some peers shared that they 'have thought about taking a year to rest or just leave dentistry' (P8), 'don't want to be a dentist...hate dentistry' (P13).

3.1.3 | Mental Health of Patients

The management of patients with mental health problems was common with 11 of 14 students (79%) treating a patient with mental illness in their patient pools, most commonly depression or anxiety disorder. In the majority of cases, this information was directly taken from the patient's medical history (P1, P5, P8, P12, P13, P14) when a formal diagnosis was provided, or inferred from the patient's list of current medications (P2, P11, P12, P14). In rare cases, students self-suspected that the patient may have an undiagnosed mental illness after showing abnormal levels of distress and anxiety (P4, P8, P10): 'she cried every time...even the nurses remember that patient crying' (P13), 'the patient told me, "Why am I not dead? Why am I not being called back into the sky?"' (P14).

With regard to how students responded to patients with mental illness, most stated that they would respond positively with understanding and openness: 'be compassionate' (P2), 'I'll try to be empathetic to them and try to listen to their concerns or any difficulty they are facing in life', 'I won't discriminate...I won't like try to ignore their difficulty or concern', 'some of them are very down' (P7). Students felt motivated to provide 'extra care' (P2) to serve their patients' specific needs: 'be more careful' (P9), 'if they do disclose their mental illness to me, then I would try my best to alleviate at least a bit of that problem whenever I deal with them' (P8), 'I need to give more attention or patience to him or her', (P13).

However, some students 'felt a bit shocked' (P13), unprepared 'I don't know how to handle' (P13), and worried about 'triggering the patient' (P14) through their actions: 'I sensed that the denture was triggering her depression which made me scared cause I feel like what I did [may affect her]...she was saying like she's not adapting to it, she couldn't eat well...it like reduced her appetite and when eating the metallic taste made her feel really bad, she couldn't sleep well...' (P11).

The impact of mental illness on oral health was acknowledged by 10 out of 14 students (71%) whilst one (P12) felt there was no relationship, and three were unsure (P1, P3, P4). Amongst those who believed that mental illness affected oral health, the reasons provided were 'poor compliance' to 'oral hygiene instruction' (P5, P7, P8, P10, P11) and the adverse effects of psychotropic medications including hyposalivation and higher caries risk (P7, P8).

3.1.4 | Professional Responsibility

All students felt that managing their own well-being should constitute their professional responsibility and that clinical care

would be negatively impacted by poor well-being: 'if I'm not in a state where I can even deliver good treatment, obviously, that would affect my patients' (P6), 'if we are unable to be in a good headspace, then it'll be very hard for us to be giving good care for our patients' (P9).

However, students were less certain that they had a responsibility to look out for the mental well-being of their peers or colleagues. Over a third of students did not feel colleagues' mental well-being should constitute their professional responsibility as a dentist (P2, P4, P7, P10, P12): 'sometimes it's really hard for us to even just take care of our own mental health...it'd be nice if we could take care of each other's mental well-being. But I wouldn't say that it's a responsibility, because I feel like that might be a bit too much' (P12). Participant 10 elaborated: 'we do not have enough training about how to look after someone who has symptoms of bad mental health. We are not professionals in this area so it's not our responsibility. But personally, as a friend, if I see someone struggling I would just help them as a friend, but not necessarily as a dentist.'

Conversely, two students emphasised the need to work with colleagues as teammates: 'dentistry is not a solo practice, it's my responsibility to make sure the nurses are in a good environment so they're professional, their delivery of their treatment as the nurse does not fall' (P6), and 'we work in a team, so if a colleague's mental health is being affected, I think we should support each other...it may affect the outcome of the clinical care as well' (P14).

With regard to managing patients with mental illness, most students felt 'comfortable' and would 'just try to treat them as normal patients' (P12, P1, P4) as 'we cannot like refuse to treat them if they have mental illness' (P7). One students stressed the importance of maintaining a 'professional' attitude: 'even when we are not with the patient, we should still respect them, and like not talk about their behaviour or laugh at the behaviours' (P2). However, students felt 'a bit hesitant and worried' that they may not be 'capable of providing the best treatment for them in terms of their mental illness' (P8), or that they 'might not know how to like communicate with them' (P12) and may inadvertently say something that would bring 'some damage to the patients' (P11). Some students expressed a desire to know how to refer the patient to professional mental health services when indicated (P9, P14).

3.2 | Support

3.2.1 | Receiving Peer Support

As a first-line approach of coping with stress and managing well-being, most students turned to their peers for support. They believed that other dental students would be able to better understand and empathise with them through shared knowledge and experience of the stressor: 'they are the only people who can understand the situation because we are all experiencing it' (P7), 'experiencing the same thing as me...I'm not alone' (P8). 'The pressure is common' (P14), 'got similar struggles' (P2), 'have a similar experience...they will understand' (P10), 'we have the same tutors' (P12), 'not a lot of people understand what we go through in dental school, especially a BDS student in HK...we rely on each other a lot for support, because we are really the only ones to understand what is happening to us' (P5), 'at the end of the day no one would understand you better from an academic perspective than your colleagues' (P1).

Most students would proactively approach their peers for support 'during lunch' (P7, P3, P1), or after school, virtually 'through text' (P1); 'on social media' (P7), or in-person 'after clinics, we would just go get a meal together' (P1). However, students would sometimes be approached by their peers directly: 'once or twice I started crying, and my colleagues came to comfort me... that was really helpful' (P12), suggesting a high level of awareness and sensitivity within peers.

The ability to openly share experiences helps to improve students' mood, 'it's good to have an outlet of sorts' (P9), 'it's much better after sharing' (P13) and 'get a bit of emotional support from that...a sense of relief' (P8). In addition, this sharing helped strengthen social ties within groups: 'sometimes when we're very stressed...we're getting closer to each other' (P11). Importantly, peer support helps students overcome adversity and build resilience through joint problem-solving: 'some of my friends also have some patients that are difficult to handle ...then we can share how to cope with these difficult situations' (P10), 'ask for some solutions' (P3), 'discuss...how they are going to deal with that stressful situation as well' (P8).

With regard to the content of peer sharing, most issues related to their course, such as 'patient management' (P14), 'failing the OSCE...keyskills or strict tutors' (P13), 'lack of cases' (P5), and not of a personal nature. 'When we're with our colleagues we're usually talking about some clinical stuff...we might not go very deep into our mental health, our problems that we're encountering' (P11). Despite many reporting 'good relationships with my colleagues' (P1, P6, P7, P11, P12), some students found it challenging to share their personal experiences of well-being: 'I don't feel that comfortable to share these kinds of things...it's kind of like a negative emotion, so I don't want to add like an unnecessary burden to other people, because I know everyone's going through certain kind of like stress during their studies' (P12). It was reported as 'a Hong Kong culture, I think everyone do not really like to share personal stuff with people' (P13). However, the tendency to hide 'the more vulnerable side of ourselves' (P11) gradually lessened with increasing years of study; as students began to feel closer to each other they 'talked more about the stress and difficulties that we're facing in BDS' (P11).

3.2.2 | Providing Peer Support

In addition to receiving peer support, students frequently provided support to their peers as they felt empowered by their own personal experiences: 'you have experience...whatever that person is also experiencing, you actually would be more helpful than any other person' (P8).

Peer support took the form of reaching out to 'check in...if they're okay' (P9, P6), 'listening' (P3, P4, P7, P11, P12, P14), being

available to talk (P9, P6) and provide 'advice' (P4, P8). Students also 'give them suggestion of what I did... at that time, so they don't have to worry about it', (P7), and offering encouragement 'if I notice that they were...getting criticised by the tutors, I'll also talk to them...just to make sure they don't take it too personally' (P12). Some participants would also provide practical support, sharing 'articles' (P8), patient 'cases' (P7), or 'a snack as a treat' (P3), or assisting the individual in need to 'seek some support from counsellors' (P14).

3.2.3 | Faculty-Level Support

All participants were less likely to approach faculty staff for support compared to their peers. Most students were only willing to open up to a handful of staff (P1, P7, P13), which was largely determined by students' perception of whether the staff would also understand their perspective. Whilst some tutors 'really understand us because they also think that the...system is a little bit stupid' (P7), others 'might not fully understand what we're encountering' (P11). This dichotomy was emphasised by Participant 12: 'some tutors... don't really understand what's the problem like, what's troubling me, or what I'm confused about—like they just don't get it... obviously I won't go to them when I'm facing certain problems. But for some others, they are really nice and they listen, and then they really sympathise with you...those are the ones that we are more comfortable to open up to.'

Students reported preferring to find staff they felt 'most comfortable with' (P8) or who 'know me well' (P13). Often, staff would need to be the first to initiate a discussion on well-being: 'they're the ones to approach you, to ask how your clinical classes are going, how school's going...they would come up to us, and if those are the tutors that have frequently spent time with our group or myself, then I am willing to open up about these emotional feelings' (P8).

The personality and demeanour of the staff also mattered, with students preferring to speak to those who are 'friendly' (P7, P13, P14), 'encouraging' (P7, P14), and 'talk more softly' [13]. On the other hand, students avoided approaching staff who were 'strict' (P8, P13), 'impatient' (P2, P11), 'intolerant of students making mistakes' (P11), or who 'always think everything is your responsibility even for something that is not, like the IT stuff...blaming the system's bugs on me' (P14).

For Participant 8, the tutor's encouragement directly affected her enjoyment of the clinical discipline: 'I had a clinical tutor who ... [did not explain] step by step what to do and what to expect. Personally I didn't make any progress so I was annoyed and I didn't really like [the clinical discipline] then...now I do have a really good teacher who is willing to teach...the tutor actually kind of tells us, 'Don't worry. You try first, whatever that doesn't work out, I'll try help.'... and right now I do feel like I learn a lot.... their attitude towards the students really makes a huge difference.'

Four barriers preventing students from approaching staff about their well-being were identified. First, a power hierarchy exists between staff and students: 'as a student there is an invisible wall to actually speak with anyone about this' (P8), 'a bit distant, like they're still the teacher, we're students' (P11), 'I personally don't like talking about stuff to a senior staff...I can't treat them as a friend' (P7), 'we are not close enough to the staff member ... doesn't feel like you can talk to them about these things' (P5), 'communicating with tutors is already quite a challenge to me...especially when they keep asking me questions....no matter whether I know the answer or I don't, I still feel a little stressed...' (P11).

Second, students felt speaking to staff about their well-being or stressors will not bring positive change: 'not sure if the tutors can really help me with these mental challenges, so I wouldn't share with them' (P10), 'even if the tutors knew about it, they can't do lot of the things that can help me... they don't have any concrete solutions' (P7). Participant 5 felt: 'they care on a superficial level but they don't really care enough to make meaningful change.' Several students added that it is 'not really their job' (P10, P4) to look after students' well-being and management of stress should be students' own responsibility to 'solve our own problems' (P11, P5).

Third, students feared the stigma of how their request for help will be received by the staff: 'we don't know which tutor we should approach like we don't know who is actually willing to help us' (P10), 'fear ... potential repercussions ... to your career, or your graduation.' (P5) and 'don't know if it's prioritized' (P1).

Finally, some students expressed barriers to access faculty staff due to time constraints of part-time staff, packed schedules or perceived different priorities as staff are 'busy' (P4), 'having to wait months...constant unanswered questions' (P8), 'I don't think they are very understanding, because they are mostly into their research and their specialty' (P14).

3.2.4 | Professional Support

In total, half of the students had sought professional help either from the university or externally (P1, P2, P5, P6, P9, P10, P14).

Six out of 14 participants (P1, P5, P6, P9, P10, P14) had utilised the university counselling services (CEDARS) with more than half reporting positive experiences: 'very easy to use...very effective and very helpful' (P1), 'it was a good outlet for me' (P9), 'we would just talk about things that were bothering me' (P6). However, students noted that the 'advice that was given was maybe more general' (P9) and improvements could be made in providing more specific advice that was more tailored towards dental students' needs with regard to the 'dental curriculum' (P9).

Participant 10 shared: 'apart from not understanding any dental issues, I just felt like they were treating the counselling sessions as their job and not really trying to understand the student.' One student had visited the counselling department not only for personal reasons, 'to manage the stress I face in the clinic and school work' but also to 'consult them on how to manage some patients with mental illness and dental anxiety' (P14).

Amongst students who had not sought university-level wellness support, four felt that it would not be helpful in addressing their needs as a dental student (P5, P12). 'They don't know the actual specific things we're going through...they would probably give a superficial general advice so personally I don't think that will help me much' (P8).

Students faced other challenges for the university-level counselling services which are located on a separate campus, and finding time to attend. 'It's not convenient to go to HKU' (P7), its 'really quite far away' (P13) and students reported 'we don't have time to travel' (P11) and its 'hard for us to find a slot, especially with our schedule' (P9). A smaller number of students did not know of the services or were uncomfortable to attend. 'I have no knowledge of what they're doing', (P11) or did not feel comfortable sharing with individuals who did not know them well (P13, P3). Despite this, others would prefer seeking support services at the university-level over finding a tutor in the dental faculty as they are 'more professional than the faculty tutors and can provide that psychological counselling service' (P4).

Four students (29%) had experienced seeking help from psychiatrists or clinical psychologists outside of the university (P1, P2, P6, P9), of which two had been formally diagnosed with depressive disorder by a psychiatrist and had received treatment for it, including 'medication' (P2) and 'transmagnetic stimulation' (P6).

3.2.5 | Other Support

When asked about seeking external support for well-being, over a quarter of students (29%) mentioned first turning to 'family', usually 'parents' (P1, P11, P12, P13), and one mentioned 'girlfriend' (P2).

Other support networks were reported in residential halls on campus with two participants reporting that this was beneficial to their well-being. The support provided to hall residents include 'well-being activities...a day where you can go do yoga or you can go on a hike' (P1), information on mental health resources, 'posters all over the hall where you can reach out if you need help' (P1), access to staff 'tutors and wardens on support' (P1), and social support 'living in a hall...one of my social work friends always helped me a lot' (P10).

3.3 | Stressors in BDS

3.3.1 | Curricular Stress

Eleven out of 14 participants (79%) brought up 'exam' or 'assessment' as the biggest contributing factor to poor well-being in the BDS curriculum (P1, P3, P4, P5, P6, P7, P10, P11, P12, P13, P14). Many felt 'stressed' from the lengthy revision time needed to cover a vast quantity of content, 'I didn't know what I was going to answer for the exam and I had to revise so much, but I wasn't sure which will actually be tested' (P11), 'the curriculum is quite demanding' (P1), 'a lot of lectures so I feel stressed...' (P7), 'you have to cram...before the final exam you have like a whole year's content that you need to study' (P12), 'there's not a lot of help and understanding and guidance in terms of like the amount of and the depth of learning...with a curriculum like BDS because it's so wide...many topics of areas to study. The lack of clarity even with the list of learning issues... feels very difficult to keep up every year with the amount of new knowledge and standards' (P6).

Some shared that their mental well-being had taken a direct hit after failing exams. One student reported they 'spent a lot of time doing revision after lectures or classes but in the end I still failed the exams, so I felt quite depressed' (P3) another reported they 'failed my exams so badly to the point where I thought about giving up on BDS....it felt like I was kind of drowning and everyone else was kind of like treading the water' (P6).

Summative clinical assessments, known as 'keyskills' in the BDS curriculum at HKU, generally caused greater stress than written exams. The main source of stress came from 'finding patients suitable for keyskills' and who were willing to attend the appointment on the day of the assessment (P1, P5, P6 P7, and P13). Participant 6 elaborated on the feeling of coping with factors outside her control: 'For keyskills, you're pressured. You're under a certain time limit to find a really suitable case that fits the criteria for keyskill' and 'you have to make sure that the patient maintains ...oral hygiene... I've seen students in my group like fail, because...the patient's oral hygiene was so poor they weren't allowed to start the keyskill' (P7). This stress generally resolved after successfully completing the exam: 'after I finish all my keyskills, I feel less stressed' (P7).

Apart from exams, 5 participants (36%) felt stressed from not understanding the expectations of the BDS curriculum, which left them feeling 'frustrated, disappointed at myself' (P8), 'it feels very haphazard, like things are kind of added on and taken off like at will so there is no clear guideline or goal' (P5). There is a 'lack of clarity, even with the learning issues' (P6), 'they do not give enough guidance for us' (P13), 'I think the stress comes in because there's a lot of uncertainty...you don't know what is expected of you' (P9). Participant 11 reflected on her experience in secondary school, where 'we usually have a very clear syllabus of what we're going to be examined on', to feeling directionless after entering dental school: 'once I entered this course, everything was kind of like vague, not sure what to do, and what I had to study'.

Stress from meeting the required attendance level (90%) in order to sit the final exams was mentioned by five students (P2, P6, P9, P10, P14). Students felt pressured to attend clinics even when physically unwell 'every time I was sick before, I was so scared that by not going to school there would be problems with my attendance...we aren't even allowed to rest, even if we are sick, and that's just very unreasonable' (P14).

3.3.2 | Transitional Stress

Stress arising from the transition from preclinical to clinical years was mentioned by 10 out of 14 participants (71%), who described it as 'a bit of a shock to the system' (P1), 'tough' (P2), 'feels like we are thrown in the deep end' (P5), 'all very confusing' (P9), 'hit me all at once...struggling to find my footing in clinic' (P6). Students often compared their progress, especially

with regard to manual dexterity skills, to their peers, and felt discouraged when they 'fell behind…and everyone else seemed like they were moving forward at a really fast pace' (P6), or when they 'notice that my work is not as good as other people' (P2).

3.3.3 | Clinical Stress

The main stressors with regard to clinical component of the programme involved 'having to deal with patients' (71%; P1, P2, P3, P4, P6, P7, P8, P10, P11, P14), 'meeting graduation requirements' in terms of 'patient treatment statistics' (43%; P1, P4, P5, P10, P13, P14), and 'admin work' (14%; P7, P14) which took up a significant amount of students' time and resulted in less time for 'learning'. Students felt that time management on the clinics was challenging: 'there isn't enough time to complete the things that I need to do' (P5). Furthermore, students felt unsupported in having to find their own patients to meet the clinical requirements: 'the faculty did not help us to find a suitable case' (P7), 'leaving you to your own devices to go and find the patients' (P5).

Encouragingly, students demonstrated increased resilience and coping skills as they progressed higher up in the clinical years, developing 'tolerance for that stress' (P8): 'We're at a point where we're trying to get used to it' (P8), 'we know what we're doing… everything kind of follows how it should go, so it's getting better' (P11).

3.3.4 | Interpersonal Stress

Interpersonal stress amongst peers was generally low. Students described their relationship with peers in positive terms: 'supportive' (P1), 'perfect, really friendly' (P11), although several clinical groups mentioned having to deal with occasional 'competitiveness' (P8, P2) or 'conflict' (P5).

Several students had struggled to work with their dental surgery assistant (DSA) on the clinics. Upon first entering clinics students found it 'difficult to relate with them' (P1), and were easily 'affected by what the DSA says' (P5), their 'bad attitude' (P10, P4, P7, P9) or 'criticising us, being too slow…sometimes we have to please them in order to make our clinical session smoother' (P7). It was observed 'there's a bit of a hierarchy, as a BDS…we're at the bottom of the chain in the clinic' (P9), 'some will give us some stress especially when we cannot finish our work on time' (P3), and being 'scolded by the nurses…their attitude towards us does affect my well-being' (P8, P14).

Students reflected that they had developed better skills to cope with working with the nurses as they gained experience on the clinics 'when I just started clinics sometimes I would feel a bit stressed out…but now I've learned to kind of just tune it out a little bit or not take it too hard' (P5). 'After we practiced a lot, we are faster, and they also respect us more' (P7), 'some of them aren't the best but you know we don't have a choice, so I just learned to work with that, at this point they don't really affect my mood anymore' (P12), 'we're getting to know each other more, and students are less affected by the nurses compared when we were in Year 2 or 3' (P3).

4 | Stigma

4.1 | Internal Stigma

Students demonstrated a high level of understanding and acceptance of mental well-being. When asked to what extent they would agree with discriminatory statements about mental illness on a scale from 1 (lowest) to 10 (highest), students disagreed that 'mental illness was a personal choice' and 'a sign of weakness or failure'. The majority did not find it attention-seeking to disclose mental illness: 'I wouldn't hide the fact to others about it' (P8), and most believed that 'one can fully recover from a mental illness' (M = 7.14, SD 1.41). The full results are presented in Table 3.

Some students expressed feeling comfortable being around patients and peers who were struggling with their mental well-being: 'would not distance from them… I feel empathetic for her… because it's quite like painful to feel those kind of things…also feel like hopeless' (P2), 'the world has become a place…that's a bit more open, more of a place where they accept and try help people with mental illness…we would probably have to deal with a patient with mental illness quite frequently…to know about mental illness, and how to help people with mental illnesses' (P8).

4.2 | External Stigma

In contrast to the low levels of self-stigma, students perceived external stigma to be quite high and found it difficult to speak openly about well-being with their peers or faculty staff due to 'ignorance' and 'prejudice' (P9): 'it's still a bit stigmatised' (P1), 'I don't think mental illness is seriously discussed in our faculty' (P5), 'people are scared of having rumours about them passed around' (P6), 'to a certain level there is…some judgement' (P8), 'they may share it with other people' (P7). Whilst some students had experienced their tutors talk about well-being 'in a supportive way' (P7, P13), others recounted that well-being had been brought up: 'in a negative way, more like in a joking kind of manner' (P5), 'I heard some…DSAs or students talk about some potentially mentally ill patients not in a very good way behind the patient's back' (P2), 'they might just say…these patients…let's refer them, don't see them when you are in private practice… they just label mental illness…in a very judgemental way' (P14). This left a negative impression on students' desire to discuss

TABLE 3 | Internal stigma.

To what extent would you agree with the following statements? (1 = strongly disagree, 10 = strongly agree)	Mean	Standard deviation
Mental illness is a personal choice	2.21	1.25
Mental illness is a sign of weakness/ failure	1.29	0.73
Disclosing mental illness is attention-seeking	1.86	1.51
One can fully recover from a mental illness	7.14	1.41

well-being with their tutors, in case 'sharing such a thing may impair the perspective of the faculty towards us' (P14).

5 | Discussion

Four themes and 15 sub-themes were identified providing insight for educators into the experiences and impact of well-being on dental students' personal and professional development, which may be used to guide the creation and implementation of appropriate training and support in the curriculum. A summary of the recommendations to support dental students' well-being for translation into practice is presented in Table 3.

5.1 | Awareness and Understanding

The recent 'Safe Practitioner' framework released by the General Dental Council (GDC) [39] on behaviours and outcomes for new dentists stresses the importance of well-being in three of its four core domains for graduating dentists. Other international guidelines for dental and medical practitioners from the United States [40], Singapore [41] and Australia [42] also emphasise maintaining personal health and wellness for safe patient care, and include well-being in the assessment of fitness to practice. Whilst all interviewed students regarded the management of their individual well-being as their professional responsibility, over a third did not extend this view to the well-being of the wider dental team. However, the GDC's framework lists 'speak up to protect others from harm' and 'raise concerns where appropriate about your own or others' health, behaviour or professional performance' as behaviours under the domain of professionalism, which needs to be emphasised in the curriculum. Despite high levels of awareness with all students acknowledging that clinical care would be negatively impacted by poor well-being, such symptoms were alarmingly widespread in the interviewee population. The high levels of stress, anxiety and depressive symptoms found in this study population are consistent with other studies of dental students [1, 3, 38, 43], including one from the same institution [44], and reflect the pressing need to provide greater training and support to help students manage their stress.

In addition, over 70% of students reported experiencing fatigue or poor sleep from their studies, which has been associated with lower academic performance in dental students [45]. Students should be educated about the need and benefits of good sleep habits to help ensure they have good physical well-being. A minority of students also reported skipping meals and experiencing physical symptoms such as abdominal pain and weight loss.

Almost four-fifths of students had treated patients with mental illness in their patient pool, with one student seeking help from the university counselling services to learn how to manage her patient with depression. This self-directed desire to seek information about caring for patients with mental illness, and the fact that over a quarter of students were unaware of the interaction between mental health and oral health, reflect a knowledge gap which should be addressed in the curriculum. Given the increasing prevalence of mental illness in society [46], dental schools should incorporate teaching about managing patients with mental illness for all students, including potential oral health interactions and referral to allied healthcare professions, just as they do for other medical conditions. This could be achieved through the creation of relevant problem-based learning issues or education vignettes which have been effectively used in a Canadian dental school to teach students on substance abuse and mental disorders in patients and were found to promote reflection and open dialogue [47]. In addition, collaborating with external mental health organisations to provide students with opportunities to interact with people with lived experience of mental illness can help them gain understanding, overcome misconceptions and discriminatory attitudes, and promote empathy and confidence in treating such patients in a dental setting.

5.2 | Support

Students frequently utilised peer support as a coping mechanism for stress and found comfort in shared experiences. A previous study from the same institution found that over 80% of dental students reported 'having a positive relationship with their classmates' [44]. This collegial environment may be a product of placing students into groups of around 10 students from their first year in which they spend a significant amount of clinical learning time together. Over the years of small group learning, peer support and overcoming challenges together, they develop trust and collegiality which appear to promote help-seeking behaviour. Strong social support has been found to buffer against dental student stress [48] and clinician burnout [49]. To further enhance peer support, students could be offered training in the form of peer support workshops or mental health training. A 'buddy system' has been proposed by dental students to promote social well-being [44, 50] and is currently being developed in this institution between senior and junior students.

The majority of students in the present study felt uncomfortable to discuss their well-being with faculty staff which was largely due to variations in perceived approachability of different staff members. This may be addressed through staff undergoing well-being training (such as mental health first aid or training workshops about mental health needs of dental students). Increased discussion of well-being at staff-student meetings has been suggested by students locally [44] and internationally [51], which may overcome the identified barriers of access difficulties and stigma. This is important as satisfaction with faculty and peer relationships was the strongest predictor of mental well-being in dental students [3]. Interestingly, it was found that medical students perceived the most important attributes of an effective teacher as being 'respectful to students' and 'understands/relates to students', which mattered more to them than the predisposition to 'give good marks to students' [52]. Faculty-level support should also be tailored to students' year of study. Polychronopoulou and Divaris [53] found that first-year students showed greater concern about their lack of time for relaxation, those transitioning into clinical years were most stressed about clinical procedures and protocols, and final-year students felt more insecure about their career and professional future. In our study, students felt that they had developed better coping mechanisms for stress as they progressed higher up in the clinical years of study but wished for greater support during the earlier clinical years with regard to finding suitable patients and managing administrative tasks.

Half of all interviewed students had sought professional mental health support from the university or external psychologists. Students expressed particular challenges with CEDARS who were unable to offer students contextual clinical advice. To overcome this there needs to be liaison between CEDARS and the faculty, on who can support students on such clinical matters which may be staff and or senior peer mentors.

5.3 | Stressors in BDS

In alignment with systematic reviews of dental student stress [1, 2], exams as well as clinical quota requirements, recently regulated by the local Dental Council, were the biggest factors contributing to stress in this cohort. In addition, the faculty has a 90% attendance requirement which also impacts well-being and students suggested clearer guidelines about requesting leave as well as strategies to make-up sessions when appropriate.

This group of final-year students cited clinical transition stress as one of the most challenging experiences in their dental school journey. Stress amongst dental students in the transition from preclinical to clinical training has been well-documented [1, 54, 55]. Peer mentoring has been reported to reduce clinical transition stress amongst dental students by connecting students with someone they felt comfortable to approach with questions, and helped students 'experience relief from their anxieties about dental school' and 'feel more confident about being in dental school' [56]. Peer mentoring is being currently implemented in the faculty.

Another clinical stressor frequently mentioned was patient management and communication which is supported by a recent survey in this institution [57]. Difficulties building rapport and communication with patients can be addressed by incorporating reflective practice (such as small group discussions and reflection on clinical scenarios from patient's perspective), role play sessions, or tutorials on patient communication [57].

With regard to interpersonal stress, 43% of students reported challenges in working with DSAs. A recent survey at this institution found that students' relationships with their DSAs were worse than with peers and tutors [44]. Similar challenges have been reported by healthcare students overseas [58]. Within this domain of interpersonal skills, the GDC requires safe practitioners to 'demonstrate effective teamwork' and 'foster well-being of others' [39]. Effective teamwork and cooperation within dental teams are associated with improved patient outcomes, efficiency, quality of care and satisfaction for both the patient and provider [49, 59, 60]. It is therefore essential to improve the quality of relationships between students and DSAs, and one solution could be training DSAs to be more encouraging in earlier years and support students under the clinical transition stress. Regular feedback on student-DSA interactions could also be collected to suggest areas for improvement.

5.4 | Stigma

Whilst students' individual beliefs about mental illness in peers and patients conveyed a degree of compassion and acceptance, it was unfortunate that many perceived a high level of external stigma in the dental school environment, fearing prejudice or negative attitudes if they were to speak out. A qualitative study found pervasive stigma amongst medical students and the pressure to 'maintain face' and internalise challenges, driven by concerns about repercussions on their future careers [50]. Peers can reduce stigma by normalising help-seeking behaviour and promoting open and non-judgmental discussions of shared challenges to learn from each other's coping strategies and experiences of overcoming adversity. Faculty staff can also reduce stigma by fostering a supportive culture and role modelling healthy work-life balance.

5.5 | Strengths & Limitations of This Study

The interview guide for this study was built upon past quantitative research [44] and facilitated a deeper exploration of the subjective experiences of well-being and social contexts of dental students. Final-year students may be more willing to express vulnerability and provide honest and open opinions as they are leaving the dental school and may be less concerned about how their sharing may be perceived by the faculty, whilst they may also wish to contribute to this study to facilitate improvements for future students. Random sampling was used to avoid self-selection bias and 17 students were invited, of which 14 agreed to participate. The sample obtained is demographically representative of the final-year BDS cohort in gender, nationality and age and COREQ (Appendix 1) guidelines were followed to minimise reporting bias.

Although the interviewers were known to the participants, participant anonymity was ensured and it was felt that students may be more willing to open up to peers of a similar background and age, compared to staff members who may be associated with a power differential. Nevertheless, two students declined to join the study as they were uncomfortable to speak about stress and well-being, and the possibility of a fear of judgement affecting participant responses cannot be precluded. The interviewers are both final-year dental students and may have inadvertently introduced bias into the research process from their personal beliefs, assumptions, and experiences. However, this was mitigated as far as possible by maintaining reflexivity through frequent triangulation with the clinical professor. Finally, the present sample is drawn from a single institution and may limit extrapolation to other dental schools with different curricula.

6 | Conclusion

This qualitative study has found a high level of stress and symptoms of poor well-being amongst final-year dental students, which were attributed to assessments, meeting clinical requirements and difficulties in patient management. Most students turned to peer support to manage their stress and half had sought professional help for their mental health. Although students were generally aware that managing their own well-being was part of their professional responsibility, they were less certain that they had a responsibility to look out for the well-being of their colleagues. Knowledge gaps in managing dental patients with mental illness and supporting the well-being of colleagues should be addressed in the curriculum and suggestions for

improving faculty-level support, managing clinical stressors, and addressing stigma in the dental school environment have been presented.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available upon reasonable request from the corresponding author.

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Appendix 1

Consolidated Criteria for Reporting Qualitative Studies (COREQ): 32-Item Checklist

Developed from:

Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care. 2007. 19 [6]: pp. 349–357.

No. Item	Guide questions/description	Reported on page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Interviewer/facilitator	Which author/s conducted the interview or focus group?	3
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	3
3. Occupation	What was their occupation at the time of the study?	3
4. Gender	Was the researcher male or female?	3
5. Experience and training	What experience or training did the researcher have?	3
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	3, (Discussion)
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g., personal goals, reasons for doing the research	3, (Discussion)
8. Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g., Bias, assumptions, reasons and interests in the research topic	(Discussion)
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g., grounded theory, discourse analysis, ethnography, phenomenology, content analysis	2
Participant selection		
10. Sampling	How were participants selected? e.g., purposive, convenience, consecutive, snowball	3
11. Method of approach	How were participants approached? e.g., face-to-face, telephone, mail, email	3
12. Sample size	How many participants were in the study?	3
13. Non-participation	How many people refused to participate or dropped out? Reasons?	5
Setting		
14. Setting of data collection	Where was the data collected? e.g., home, clinic, workplace	3–4
15. The presence of non-participants	Was anyone else present besides the participants and researchers?	4
16. Description of sample	What are the important characteristics of the sample? e.g., demographic data, date	3
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	3
18. Repeat interviews	Were repeat interviews carried out? If yes, how many?	4
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	4
20. Field notes	Were field notes made during and/or after the interview or focus group?	4
21. Duration	What was the duration of the interviews or focus group?	3
22. Data saturation	Was data saturation discussed?	4
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	4

No. Item	Guide questions/description	Reported on page #
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	4
25. Description of the coding tree	Did authors provide a description of the coding tree?	Table 2
26. Derivation of themes	Were themes identified in advance or derived from the data?	4
27. Software	What software, if applicable, was used to manage the data?	4
28. Participant checking	Did participants provide feedback on the findings?	4
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g., participant number	5
30. Data and findings consistent	Was there consistency between the data presented and the findings?	5
31. Clarity of major themes	Were major themes clearly presented in the findings?	5
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	5