The lived experience of stress in British South-Asian medical students and junior doctors

Abstract

BACKGROUND:

Stress is an acknowledged element of the medical profession; how cultural backgrounds may affect the perception of stress is understudied.

OBJECTIVE:

This study aimed to examine the stress-related experiences of British South Asian medical students and junior doctors, and to explore their coping mechanisms.

METHODS:

Semi-structured interviews were conducted with five participants at various stages of medical training. All participants reported stress, anxiety or depression and were of a British South Asian heritage.

RESULTS:

An InterpretativePhenomenological Analysis was undertaken and three master themes were identified. These themes follow a narrative journey. The first theme was Individual and External Reasoning, and referred to the factors that influenced participants career choices - both internal (e.g. a sense of self-efficacy) and external (e.g. prior exposure to the medical career). Secondly, Stress and Vulnerability examined the stress the participants experienced as a result of either internal stressors (e.g. perfectionism) or external stressors (e.g. social comparison). The last theme, Perseverance and Coping, referred to the coping strategies that participants developed to deal with aforementioned stressors, which varied from self-harm to visualisation.

CONCLUSIONS:

The choice to pursue a medical career was based on self-efficacy, prior exposure, and the perceived prestige of the vocation. Stressors and related coping mechanisms varied within the cohort, depending on social, environmental, and psychological circumstances. Whilst stress management interventions should take a personalised approach, considering individual cultural backgrounds; the systemic factors within medical training that directly lead to stress have to be addressed rather than merely acknowledged.

Key words: doctors, mental health, burnout, culture, qualitative, InterpretativePhenomenological Analysis

Introduction

There is a higher level of burnout in junior doctors and medical students than in the general population [1] and anxiety and depression is common [2,3]. These problems can continue beyond training, long into the doctor’s professional and personal lives [4]. A recent survey found more than half of general practitioners in the United Kingdom (UK) have felt unwell due to work-related stress in the last year [5]. Reasons for medical students experiencing greater levels of stress include not only having to contend with the changing expectations of their future occupation, but also the added pressures of medical education; examinations, peer competition, and lack of free time [6,7]. It has been put forward that the educational environment in particular, with its inflexible and authoritarian systems that promote competition rather than cooperation, increase the levels of stress experienced by medical students [8,3]. In addition, post-graduate medical trainees from black and minority ethnic backgrounds report facing cultural bias and lack of trust from their seniors, which may also impact their learning and performance [9].

Studies investigating the experience of stress within medical students and junior doctors suggest difficulties in work/life balance [10,11], stress related to periods of transition [12,11], the academic burden [13,12,10], a lack of support [12,10], having to prove oneself and appear professional [14,10] and a culture of silence regarding stress in the workplace [14].

The ethnic profile of doctors within the UK differs significantly to the general population with South Asian doctors comprising a significant percentage of the National Health Service’s (NHS) medical workforce [15]. There are practical reasons for this, overseas recruitment for example, but also cultural dimensions as well. South Asians have been noted to exceed academic expectations in British schools, which then often leads into more vocational careers such as medicine [16]. Additionally, South Asian populations hold a medical education and profession in high esteem, and parents may pressure their children into vocational careers rather than careers of their own choice, leading to them experiencing higher levels of stress [17,18].

 South Asian medical students have been found to demonstrate more negative attitudes towards psychiatric symptoms [19], and psychological treatment [20], as compared to their white British classmates. This reduces their likelihood to engage with their own mental health problems. Coping strategies can be influenced by ethnic, cultural and socioeconomic status. For example, medical students in the UK reported using more alcohol, tobacco and drugs in order to minimise stress, whilst a study on Pakistani students showed that they used different coping mechanisms, relying upon sleeping, sports, and spending time with friends [21,22] . Chai, Krägeloh, Shepherd, and Billington found that in a sample of university students in New Zealand, Asian students were more likely to use spiritual coping strategies (e.g. prayer, acceptance of events as a higher power) than their European counterparts to improve their psychological wellbeing [23]. This research indicates a cultural difference in approaches to tackling stress. Kuo’s research echoes this, and states that it could be a result of cultural factors, such as collectivist culture, limiting the coping options available to an individual [24].

Although there exists a relatively significant body of research investigating the role of stress in medical students and junior doctors there does seem to be a lack of studies focusing on it; especially those that utilise a qualitative approach. In addition, there is a lack of previous research examining the lived experiences of stress, anxiety and depression specifically amongst Asian junior doctors and medical students, with more studies examining the prevalence of burnout and stress generally in different populations [25,26].

The present study aims to use Interpretative Phenomenological Analysis (IPA) to explore the lived experiences of British South Asian junior doctors and medical students with high levels of stress and/or anxiety and depression, as well as coping mechanisms and possible implications on their education and future career, given the resistance present within the occupation to seek help [27]. The present study also aimed to explore the cultural implications of navigating a medical career, given South Asian stigmatisation of symptoms of mental illness [28].

Methods

**Participants**

IPA [29] focuses on a small and homogenous sample rather than random sampling, in order to allow for an in-depth exploration and understanding of participants on an idiographic level. Therefore, a purposive sample of five participants were recruited from networks of the first author, primarily via email.None of these participants were personally familiar with either author. However, they were recruited via the first author’s personal networks. This may have created bias in the authors’ interviewing style and analysis.

All participants were South Asian and either born or raised in the UK (see Table 1). All participants self-reported high levels of stress related to their occupation or degree.

INSERT TABLE 1 HERE

However, not all participants were in the same stage of medical training; three were medical students and two were junior doctors. It is important to acknowledge that while all participants self-reported stress, they were interviewed at different life stages, and may have been facing unique challenges.

**Design**

The study utilised a qualitative semi-structured interview design consisting of open-ended and non-directive questions based on previous literature and discussions between authors, in order to encourage free responses as required for IPA. The interview schedule consisted of nine questions based on their familial experiences growing up, academic and professional challenges, and current or recent experiences with stressful events, as well as coping mechanisms in relation to these. Responses were prompted as necessary, for clarification and expansion. Consistent with an IPA framework, the interview schedule did not dictate the direction of the interview. An example of the questions asked include: “Could you tell me about the kinds of mental-health-related/stress-related problems you’re experiencing/you have experienced in the past?” “Could you walk me through the last time you felt that way?” prompts – physical and mental sensations; triggers; recurring or intrusive thoughts related to incident; aftermath; management; reconcilement with work. Ethical approval was obtained from London South Bank University prior to recruiting participants. All participants provided both oral and written informed consent to take part in the study. Interviews were conducted by the first author and lasted for approximately one hour.

**Data analysis**

The data obtained was analysed using IPA by the first author, considering the researcher’s reflexivity [30], and using a phenomenological perspective as described by Kleiman [31]. This means that findings describe a lived experience and are determined both by analysis and by the researcher’s insights. A double hermeneutic perspective is inherent to IPA analysis [32]. This has been described by Smith and Osborn [29] as ‘trying to make sense of the participants trying to make sense of their world’ (p.53).

The method involved transcribing the interviews using MS Word. The researcher then read the transcript several times to encourage familiarity. The data was then annotated, and codes were generated for each quotation. Each individual code was then placed into a list and colour coded by themes discerned by the researcher. Remaining codes were then grouped into the themes where they best fitted. These formed a list of master themes, which were checked and rechecked against the transcripts to ensure that they adequately reflected the interviewees’ experiences. This was completed using a combination of manual methods (Post-Its and written lists) and digital ones (Excel for separating codes). The second author, although not involved in the data collection, checked the coding system and verified that the themes were sufficiently grounded in the data.

Because qualitative analysis is a subjective process and IPA uses an inductive approach, the researcher’s standpoint and philosophy can impact the analysis [33]. The IPA approach considers the researcher’s input as a necessary part of the analytical process. The researcher’s viewpoint was informed and facilitated by a combination of knowledge of medical students and the profession, the literature, and personal experiences of stress as a South Asian Psychology student. It is acknowledged that the analysis may also be affected by the researcher’s perspective and background as an Indian growing up with parents and a brother in the medical profession. The first author aimed to explore this by inviting the second author to supervise analysis.

Findings/Discussion

Exploration of themes and their constituent subordinate themes (see Table 2) will form the basis of this section, with each theme illustrated by verbatim extracts from interviews. Links are made to theory and research within this section to avoid repetition.

INSERT TABLE 2 HERE

It is recognised that these themes are one possible account of each participant’s experience with a medical career as a British South Asian. These themes were chosen due to their relevance to the research aims. While there were commonalities across the five accounts, there were also areas of divergence and difference.

**Individualism and External Reasoning**

This master theme demonstrates participants’ reasoning for choosing to study medicine and to engage in this profession. It encompasses both individual factors and external factors.

*Self-efficacy*

This subordinate theme addresses participants’ innate beliefs about their own capabilities and how they fit into the medical profession. Most participants chose to enter the profession because they wanted a sense of control over their future. This included a linear path to a stable and well-paid vocational career with a number of benefits, such as being held in high esteem:

*‘I thought, well, I know what medicine is, I know what it’s about … we get to be in university that long and get into a nine to five job immediately afterwards’* - Anik

These findings demonstrated that the participants’ perceptions of the role of a doctor as a predictable and reliable career choice. This is consistent with Heikkilä et al.’s [34] findings that male medical students considered occupational prestige an important factor in their career choice. Anik in particular mentioned the stability around his medical career and the linear progression from the degree into a profession. However, other participants in different stages of their medical career felt more uncertain:

*‘I enjoyed what I saw, what I thought the role of a doctor was … (but) it worries me that I have to choose something, maybe I’d be three years down the line and then I’d have to go back and think I don’t like this’* - Devna

*‘I’ve gone through every specialty in the book, so, pfft. At the minute I’m just a bit unsure’* - Naveed

Naveed’s use of language showed his feelings of anxiety around his career. According to previous research [35], students grappling with career indecision are more anxious and impulsive than their decided peers, leading to dissatisfaction and lower performance.

Several participants based their decisions to study medicine on previous experiences:

*‘(Work experience) was like, the confirmation that I wanted to do it’* - Devna

*‘I did placements in a hospital, and I enjoyed it’* - Pallavi

*‘A lot of people around me had mental health illnesses, myself included, so I…I kinda felt like I wanted to do something to help with that specific area, because it’s also personal to me…I know people around me that have gone through it and seen how difficult it is. And, I wanna like, get the training needed to be able to help - not just them, but anyone who’s going through mental health illnesses.’* – Tareq

For these participants, previous experience strengthened their beliefs about the profession. This is consistent with Bandura’s [36] theory which claims that a person’s beliefs in their ability to perform successfully are developed from experience. When previous experience resulted in successful outcomes, the person demonstrates high self-efficacy and will show persistence and effort. Subsequent research has shown that career decision-making self-efficacy is related to self-esteem, commitment and motivation to career decisions [37], and to the type of occupation considered [38]. Tareq in particular demonstrated that approaching a medical career as a way to control one’s own environment and handle issues in one’s personal life was a similar driving factor.

Most of the participants demonstrated consideration of the role and how it would benefit them in the future, including thoughts of how the profession was held in high esteem:

*‘It’s a good, challenging profession, lifelong career, er, something that...you know, I was always interested in anyway.’* - Naveed

Others were less certain given the current political climate:

*‘doctors aren’t treated as well, and they’re not as highly regarded by the public … people are really demanding, patients are a lot more demanding and they use the internet and they don’t put as much trust into doctors’* – Pallavi

These findings showed that despite the public pressure, the participants still consider the career to be respectable. This respect comes with a perception of the job being extremely varied, which most participants listed as a positive:

*‘Sometimes you were in lectures, sometimes you were in clinics sometimes you were on the wards, sometimes you were, like, prescribing’* - Pallavi

However, some participants later indicated that the unpredictability of the job made it stressful:

*‘The stress of thinking, have I covered everything I need to know. But at the same time, well, you’re never gonna cover [everything]’* - Naveed

This demonstrates that the participants felt a great deal of conflict around the benefits of the medical profession, finding them both a driver for selecting the profession in the first place and an internal stressor. This is consistent with the psychological cost-benefit model, in which people’s career decisions are based on their perceptions and expectations with regard to both economic and psychological goals [39].

Another significant factor in choosing the profession was the participants’ natural inclination towards science during their high school exams. This shows that their academic self-assessment led them to a profession of which they thought themselves capable:

*‘I found Biology and Chemistry easier at GCSE, in terms of getting higher grades’* - Pallavi

*‘I was good at sciences’* - Anik

These findings showed that the participants were inclined to decide on their profession on the basis of being competent in the sciences from a young age; interestingly they did not express any enjoyment of the subject. This is consistent with research exploring the self-efficacy beliefs of children [40], finding that children’s perceived academic and social abilities influenced the occupational activities at which they judged themselves to be effective. This, in turn, influenced their career pursuits.

*Expectation and Pressure*

This subordinate theme examines the external reasons that participants chose to pursue a medical career, including societal pressure and exposure to the career in daily life. All the participants demonstrated some form of pressure from their families to study medicine. This came in the form of encouragement or pressure to get good grades in order to pursue a successful vocational career:

*‘If I got anything below an A, then they weren’t good to deal with, they weren’t happy, they were disappointed … (on choosing medicine) they were quite happy about it, actually. Um, ‘cause, ‘cause of the way that it’s seen’* - Tareq

*‘My dad suggested it, and it just went from there … they were all quite, um, happy actually, haha. Because it’s quite a respected profession’* – Naveed

These findings demonstrate that the participants all experienced some form of social pressure, usually within their families, that partially led to them studying medicine. Naveed mentions that the profession is ‘respected’. This indicates that his perception on the career is positive. Both Naveed and Tareq’s families demonstrated a level of support and pressure that corresponded with the high esteem in which the profession was held. This is consistent with findings that families had a significant impact on their children’s career choices [41].

There were three participants with family members in the medical field (Anik, Pallavi, and Devna). They were reluctant to admit that their families had a significant impact on their career choice and highlighted that their parents made them aware of the drawbacks involved in a medical career rather than encouraging them. But all acknowledged that their familial background did have an influence:

*‘When I first chose to study medicine my dad was actually really against it … he’d done medicine, I guess, his reasoning was that it’s actually really hard work, you don’t get paid good money for it, you could do much - you could do a much easier career … It was something that I saw my dad do, so I had some knowledge of it already’’* - Anik

*‘There are aspects of the job that they don’t like, so they wanted me to make sure that I knew that … they told me, made sure I knew the bad stuff … it was always in the back of my head, like I could do medicine’* – Devna

This reinforces Turban’s [42] findings that students preferred to work for a company with which they were familiar. In a similar way, the participants may have chosen to work in a field with which they were familiar. Therefore, reasons for choosing a medical profession may have included mere-exposure to the profession and social pressure. This social pressure may be partially rooted in stereotypes that the participants internalised. The participants seemed aware of a connection between South Asians and a medical career:

*‘You’re South Asian, you certainly have that stereotype of, like, you’re doing medicine, of course you’re doing medicine, your parents forced you to do it’* - Devna

*‘There’s a stereotype there, that sort of thing. Of doctors being Asian’* - Naveed

*‘Certain ethnic groups, they do much better in school, in terms of academically, so they’re more likely to end up in, in a range of jobs, the ones that require higher grades to get into in the first place’* – Anik

These findings indicate that while exposure to medicine in both family and as a cultural stereotype may correspond with the participants’ career choices, the participants were eager to separate themselves from this stereotype. This may be in order to claim agency over their decision, particularly specifying that they were not forced into the career, and therefore a coping mechanism to avoid cultural stigma.

**Stress and Vulnerability**

This master theme examines the negative effects of medicine upon medical students and trainees, focusing on both external and more innate or internal stressors.

*External stressors*

This subordinate theme examines external stressors on the participants and how they interacted over the course of their medical career. All the participants stated that they frequently suffered from academic stress, whether this was pressure from examinations or a self-imposed pressure of having to obtain certain grades for an end goal (from A Levels to current studies). Different examinations, regardless of type (written or oral), could be a source of stress and anxiety. In particular the more advanced exams (OSCEs) being particularly stressful:

*‘There was a lot of pressure during A Levels to get three As…There was a bit of pressure from family, I would say, because once they all find out they were all like, ‘Oh, Naveed is going into medicine’, and all this, and I’m thinking, god, if I don’t get in it’ll make me look really bad’* - Naveed

*‘It was stressful in the sense that I had to get good grades, to get in basically’* - Tareq

*‘There’s a lot of stress that comes from doing that degree … those things don’t come naturally to me, so I guess I found them quite stressful. Like, especially in OSCEs and stuff like that’* - Anik

*‘It’s always really stressful, just like, having an examiner and someone else there and timing it and it feels so unnatural to me’* - Pallavi

Another contributing factor of academic stress was the element of social comparison that accompanies it:

*‘Everyone likes to tell everyone how much they know and how much they’ve been revising and how they haven’t slept for, like, three days, and, how like, they go to the library at three in the morning … you’d always think, okay, maybe I should be doing that, too’* - Pallavi

*‘Everyone else seems to be so clever that you don’t feel like you know anything, like, if you don’t know one piece of information you automatically assume that someone else is there, you just think you don’t know anything, I haven't learned anything, but like, I think you do, you just second guess yourself’* - Devna

These findings show that social comparison is a commonplace activity within a medical environment. Social comparison theory states that people determine their own worth by comparing themselves with others [43]; that upward social comparison could result in a decline in mood state in those with lower self-esteem [44]. However, not all individuals are affected to the same degree; those with a strong need for social comparison will be more sensitive than others [45].

An additional external stressor for the participants was life events that did not take place within an academic or working environment. Two participants reported family or relationship problems that affected them quite negatively. They mentioned that the combined stress of home life and studying was difficult and associated these life events with their decline in mental health. This corresponds with previous research stating that the ability to cope with life stress can be affected by an individual’s personal resources in addition to their environmental resources [46]:

*‘There were basically some aspects of domestic violence in my home … I had all that to deal with, in my third year, and on top of all that, studying at med school’* - Naveed

*‘A break-up, coupled with academic stress, coupled with, for me - like a lack of support. I think that that...that...didn’t make it, it didn’t help. And then it got worse? As time went on. So the anxiety increased, and the depression increased.’* – Tareq

Time management can also be a significant external stressor for medical students. Several participants indicated that they struggled with time management, particularly when the job’s requirements exceeded their expectations. One participant demonstrated that medical students are not catered to at their universities, and find time management difficult:

*‘My minimum day was probably about ten hours not even including commuting, and I found that very hard and I didn’t have the energy or motivation to keep up with people or do things’* - Anik

*‘I don’t have much free time anymore, to be honest, and when I do I’m so tired from working, studying, being on the wards, that I get home and I wanna watch TV’* - Naveed

*‘This morning I was trying to ring someone (at the university), and they’re like, yeah but aren’t you at university, and I’m like, yeah, but I start next week, I’m doing medicine, I’m in final year so we start next week, and they’re like, oh, well everyone’s gonna be out of the office’* – Pallavi

These findings illustrate that medical students have to balance activities and show advanced time management skills; although struggling at times. Participants seemed to be overworked and had little time to manage their personal lives. This has implications for their mental health, as studies have indicated that students with perceived control of their time reported greater work and life satisfaction [47] and that time management had a significant buffering effect on academic stress [48].

*Internal Stressors*

This subordinate theme addresses participants’ internal stressors and how they affect their mental health and experiences in medical education. Most of the participants demonstrated elements of innate perfectionism, which can be linked to stress. Perfectionism has been defined as a characteristic involving an overly critical attitude towards oneself and extremely high standards [49]. This perfectionism manifested as the participants feeling pressured to know everything around their subject, and yet being unable to:

*‘I’ve had to say to myself, no, you can’t cover everything, and that was a challenge’* - Naveed

*‘No matter what you do you’re never going to learn it all … I think some people can find that, balancing how much you need to learn and not learn, very stressful’* - Anik

These findings demonstrate a sense of perfectionism in the participants that stems from being presented with a large amount of information and struggling to accept their incapability to know everything. Previous findings have indicated two types of perfectionism: ‘normal’ or positive, where people demonstrate realistic expectations of themselves, and ‘neurotic’, where they demonstrate unrealistic expectations of themselves and thereby engage in self-criticism [50]. Perfectionist tendencies have been linked with feelings of guilt and shame [51], a higher incidence of stress and subsequent burnout [52] as well as depression [53]. This provides support for the Stress Vulnerability model, as it links perfectionism (a vulnerability factor) combined with stress in the medical profession as a precursor to mental health problems [53]. Indeed, not being able to live up to internal standards, a failed perfectionist, lead some participants to judge themselves harshly:

*‘You just feel like you’re a bit of a nuisance … I just think if I’m not fully prepared I’m gonna mess it up, whereas other people kind of just learn a bit and make do with communicating really well.’* - Pallavi

*‘I think I tend to put everyone else on a pedestal and put myself lower … I was very worried to go (on placement) because I thought everyone would be so much smarter than me … I mean, I still don't feel confident’* - Devna

This demonstrates that both participants felt inferior to those around them in an academic context, demonstrating impostor syndrome (i.e. inability to internalise accomplishments, feeling like a fraud). This corroborates prior research indicating that a significant portion of medical students experience impostor syndrome [54] leading to burnout and low confidence.

This lack of confidence can also be attributed to past experiences. Two participants in particular had alienating experiences in their childhoods which could have shaped their current personalities:

*‘I’ve dealt with a lot of racism growing up and I don’t feel that or think that particularly helped my self perception, my self identity, because I was always a bit like, well I see myself as white but other people don’t, you know? Or maybe not even necessarily white, but you know, British, whereas other people sort of alienate me. Based on, you know, the fact that my skin is slightly tanned, you know, I’ve got dark hair.’* - Naveed

*‘My experience was, you do get a lot of ignorance or intentional, as well as unintentional, racism, which we just learn to ignore and accept. So when I was younger and growing up, I just learned to accept that it was there and ignore it, like, that’s just how it is, whereas now I think if certain things happened now, that is, if the  same experience were repeated now, I would actually say, excuse me, like, what is going on? And you know, I wouldn’t just lay down about it.’* - Anik

**Perseverance and Coping**

This master theme examines perseverance that the participants displayed in pursuing a medical career. This includes motivation to study (prioritising work over other important individual activities) and resignation to the career path they have chosen. It also encompasses coping mechanisms regarding occupational stress.

*Drive*

This subordinate theme addresses the motivation and perseverance of the participants. In particular, this theme examines the priorities demonstrated by the participants who strove academically rather than engaging in other activities, spanning from making friends to self-care. A medical career can be so time-consuming that it can have a serious impact on one’s personal life. These time constraints have led participants to neglect necessary leisure and social activities and their self-care. In one example a participant explains how academia was prioritised over their mental health:

*‘It was more self-harm and suicidal feeling? That manifested. Um, mostly throughout the year, so up until…maybe, exam season? Where it was pushed to the back, in place of exam stress. This is what I need to do, this is how I need to do it, forget about everything else’* - Tareq

*There’s so many things where I’m like, I wanna do that, I wanna do that, and I just, like, don’t end up doing it … I see a lot of doctors forgetting to eat and drink when they’re working’* - Pallavi

*‘I’ve been in a position where I’ve lost contact with people who I was friends with, because they think I’m not interested in them’* – Naveed

This lack of personal care and aspects of general wellbeing could lead to an increase in stress levels. This is consistent with studies showing that excessive workload and fatigue in the medical profession could lead to negative personal and professional consequences [55]. These findings show that while the participants showed high motivation towards their academic pursuits, their prioritisation may have affected their personal choices and compromised other important aspects of their lives.

*Resignation*

This subordinate theme leads to the discussion of feeling resigned to the stress accompanying a medical career. Several participants seemed to accept that stress was a natural consequence of a career in medicine:

*‘One of the things that is difficult is the stress level that comes with it…there’s a lot of stress to...um, memorise things, and do really well on exams. Like, just like learning so much information, as it goes round.  So it’s stressful in that sense, and I’ve noticed that my mental health does tend to flare up during university times, as opposed to summer holidays*. - Tareq

*‘It’s just one of those things you gotta get on with, I suppose. No one said it’d be easy … if you’re in this profession then you’ve got to be resilient enough to deal with it, you know. If you can’t take the heat, get out of the kitchen’* – Naveed

This quotation draws attention to Naveed’s attitude that stress is innate to the medical profession. This highlights the importance of individual resilience in the profession, supporting literature by Eley et al. [56] stating that resilience was a key trait for medical professionals to function optimally. This also indicates that stress ‘comes with’ the profession. However, it is important to acknowledge that these participants have indicated significant levels of stress prior to beginning their medical education. It is therefore unclear whether chronic exposure to stress has shaped their perceptions of the profession. It is vital to acknowledge that the participants’ internal stress may have contributed to their view of medical careers as stressful.

*Coping mechanisms*

This subordinate theme examines the behavioural and psychological efforts that participants employ to minimise work-related stress. These can be divided into active and avoidant coping mechanisms [57]. Some of the participants demonstrated having physical and mental symptoms of anxiety in relation to academic performance:

*‘Being on edge all the time, and sort of, sweaty, uh, shaky, things like that. Struggling to sleep…feeling as if I’m going to fail’* - Naveed

*‘I feel my heart rate increase, I get a bit sweaty, kind of tunnel vision, nothing I don’t know to be anxiety symptoms. It’s more like worrying or ruminating about it’* - Anik

The participants listed a variety of ways of coping with these anxiety symptoms and stress generally. Including unhelpful strategies such as avoidance and self-harm, and a range of more positive interventions:

*‘There are specialties in medicine that - I won’t say which ones - that are less stressful … I have considered … that. Because who doesn’t want an easy life?’* – Naveed

These findings demonstrate Naveed’s use of avoidance of a more stressful specialty to manage his own anxiety symptoms, even if it means a less interesting career. However, this may not have been an optimal strategy as studies have shown that avoidance mechanisms may initially help with stress, but they eventually intensify the stress experienced [58].

One participant had tried several strategies, with varying success, but found that self-harm was the one thing that allowed for a release of his difficulties:

*‘I didn’t really have a very good coping mechanism, apart from maybe medication … I’m currently going through therapy… I did meditation as a technique to help me with my depressive feelings … I found that quite helpful … (but) cutting was my release. Um, during that depressive episode but because I stopped cutting, I think...I think my depression manifested more as suicidal thoughts after that.’* – Tareq

Another participant, although finding a visualisation strategy initially successful, found it difficult to implement consistently:

*‘Sometimes I find it really helpful to imagine the room and what the room is like, what it’s like to go in, practise in my head before I go in … (but on campus) I don’t know, I was like I don’t even know, what room we’re going to be in, what the set-up’s going to be like, I don’t even know who I’m going to be sat next to, ah, like, things like that, it just felt really, I don’t know’* – Devna

Other participants had more success with their strategies:

*‘Exercise really helps … I think it definitely helps in terms of completely switching off’* - Pallavi

All of the participants mentioned support networks being extremely helpful to them in some capacity:

*‘I have my friends - and you know, we stick by each other’* – Naveed

*‘You have breaks, like we’d coordinate it so we’d have breaks together so that if we didn't get to see each other we’d at least see each other on our breaks’* – Devna

These findings show that support networks helped the participants to handle life stress. This is consistent with prior research showing that support networks can moderate life stress [59] or have a buffering effect on stressful life events [60].

Most of the participants engaged in active coping strategies. This is consistent with Sreeramareddy et al.’s [57] study, which stated that active coping mechanisms were more commonly employed than avoidant ones by medical students. In general, it has been suggested that people with effective coping mechanisms had higher stress tolerance, and were less likely to be affected by life stress [61].

Conclusion

The aim of this study was to explore the lived experiences of five South Asian medical students and junior doctors self-reporting anxiety and stress. Findings showed that participants based their career choice on self-efficacy, as well as exposure to the profession and the perceived prestige accompanying this vocation. Different stressors were identified, including academic stress and time management, stressors supported by recent research [62]. The present study also provided support for the Stress Vulnerability model, which suggested that the effect of stressors upon an individual depended on their social, psychological, and environmental circumstances [63]. Finally, a range of coping mechanisms were identified, most of them active rather than avoidant.

The findings of the current study demonstrated strong support for the link between medical education and high stress levels. These findings were consistent with previous qualitative research in finding that prestige, family, lifestyle, amongst other factors, influenced medical students’ career choices. The present findings were also consistent with previous research indicating that the most common stressors amongst medical students were examinations, time pressure, and workload [64]. However, one strength of this study was that few papers have examined stressors in British South Asian populations - a topic which is prevalent, given that the distribution of the medical professionals within the NHS is increasingly Asian [65].

It should be noted that in the present study, the participants were British Asian medical students and junior doctors, therefore the applicability of these findings to other groups is questionable. These results may differ with medical professionals that are further along in their careers. However, the experiences of the participants in this study are comparable to those discussed in studies presented earlier. Although cultural or familial aspects are important factors, it seems that the stress and the responses to stress within medical students and junior doctors is a worldwide issue, irrespective of culture. Although the findings from this research and from previous research seem to have more similarities than differences, more research is needed to explore cultural and familial influences upon an individual’s career choice.

The themes discussed are the first author’s interpretations of each participant’s account, therefore they may be biased by the researcher’s previous experiences and perceptions of the medical profession. In order to minimise this bias, a second researcher checked and confirmed the above themes. However, future research is needed to further examine South Asian medical students’ and professionals’ experiences of stress and burnout in order to develop effective interventions.

Given that stress within medical training appears to be a universal issue (best summed up with a quote from Naveed: *If you can’t take the heat, get out of the kitchen*), then training institutions and employers have to take some responsibility for this. Simply acknowledging a culture of stress is not acceptable. Whilst research on culturally specific and personalised psychosocial interventions for this population are recommended, the systemic factors that lead to the stress must be addressed. The General Medical Council have echoed concerns about doctors suffering from burnout in their 2018 report on the state of medical education [66], acknowledging the growing prevalence for stress in the medical profession, and the accompanying need for intervention.

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Table 1 - Participant demographic data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pseudonym\*** | **Gender** | **Age** | **Country of ethnic origin** | **Medical student/Junior doctor** | **Self-reported/diagnosed mental health issue\*\*** |
| Naveed | Male | 24 | Pakistan | Junior doctor | Anxiety (S) |
| Tareq | Male | 20 | Bangladesh | Medical student | Depression (D)Anxiety (D) |
| Anik | Male | 30 | India | Junior doctor | Anxiety (S) |
| Pallavi | Female | 23 | India | Medical student | Anxiety (S) |
| Devna | Female | 19 | Nepal | Medical student | Anxiety (S) |

\*Pseudonyms were used to ensure confidentiality – all participants explicitly consented to have verbatim excerpts from their transcript published
\*\* D = diagnosed, S = self-reported

Table 2 - Master themes and related superordinate themes

|  |  |  |
| --- | --- | --- |
| **Themes** | **Subordinate Themes** | **Description/Context** |
| Individualism and External Reasoning | *Self-efficacy* | * Perceived control and beliefs
* Natural ability
* Perceived benefits of profession
 |
| *Expectation and Pressure* | * Social pressure
* Mere-exposure effect
* Stereotypes
 |
| Stress and Vulnerability | *External Stressors* | * Academic stress
* Social comparison
* Life events
* Time management
 |
| *Internal Stressors* | * Perfectionism
* Lack of confidence
* Previous experiences
 |
| Perseverance and Coping | *Drive* | * Motivation to succeed in spite of hindrances
* Prioritising work over self-care or leisure
 |
| *Resignation* | * No critique of systemic stress within medical profession
* Pressure on individual to concede stress as part of the profession
 |
| *Coping mechanisms* | * Support networks
* Therapy
* Self-harm
* Medication
* Leisure activities
 |