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ORIGINAL ARTICLE

EMOTIONAL EXPERIENCES OF UNDERGRADUATE MEDICAL STUDENTS: A QUALITATIVE PERSPECTIVE

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ABSTRACT

OBJECTIVE: To explores the distressful emotional experiences and coping strategies of undergraduate medical students from a public-sector medical college of Khyber Pakhtunkhwa, Pakistan.

METHODS: A qualitative narrative inquiry based on cognitive appraisal theory of emotion was conducted from May 2018 to October 2019. Semi-structured interviews were conducted with a purposive sample of 15 undergraduate students of a public-sector medical college of Khyber Pakhtunkhwa, Pakistan having high risk of psychological distress, as identified through Kessler psychological distress scale. The narratives were transcribed verbatim and analyzed using framework analysis.

RESULTS: Out of 15 students, 8 (53.3%) were females and 7 (46.7%) were males. All students were residing in hostels. Out of 15 students, 4 (26.7%) were from first professional year, 2 (13.3%) were from 4th year and 3 (20.0%) each from 2nd, 3rd & final professional year MBBS class. The participants reported intrapersonal, interpersonal and systemic experiences resulting in feelings of shame, inadequacy, insult, anger and sadness. The severity of distress reduced from first to final professional year. They adopted various coping strategies for example, some kept quiet and/or submitted, while others confronted and/or looked for means to divert attention. Some cried out loud and others prayed and/or used sleeping pills.

CONCLUSION: The undergraduate medical students experience emotionally difficult and diverse intrapersonal, interpersonal and systemic situations. They use emotions-focused, problem-focused and meaning-focused strategies to cope up in such situations. Medical students need to be protected from preventable causes of morbidity and mortality. The institutions should offer student counseling services in the campuses.

KEY WORDS: Emotions (MeSH); Stress, Psychological (MeSH); Students, Medical (MeSH); Education, Medical, Undergraduate (MeSH).

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INTRODUCTION

Basic Medical Education is an extremely challenging academic experience with significant distress and minimal opportunity to relax.[1] Over the last few decades, the expectations from medical students have been raised. Students are judged by their excellent academic record, a first world type social life in campus and being part of out-of-campus indigenous social groups. There is an increasing pressure to achieve various competencies to adapt to the ever-changing landscape of healthcare. The curriculum is more student-centered, participatory and community based. Likewise, other issues such as personality factors, new learning environment, life events, family conflicts, financial difficulties, peer pressure, social stigma have been left unconsidered.[1-2] All these have many unintended effects on medical students' mental and emotional health. Any distressful experience would impact their learning abilities, academic performance and patient care.[2]

There is a growing interest in medical education literature on the assessment of distress, its sources and possible interventions for management.[3] Most studies were quantitative, measuring distress and burnout among medical students using various pre-validated questionnaires such as Higher Education Stress Inventory (HESI), the Major Depression Inventory (MDI), General Health Questionnaire (GHQ-12), Medical Student Stressor Questionnaire (MSSQ), Maslach Burnout Inventory, Depression Anxiety Stress Scale (DASS 21) and Pittsburgh Sleep Quality Index (PSQI) questionnaire.[4-8] The findings reported high prevalence of stress among medical students. The type and amount of stress varies in different academic years. The qualitative studies were scarce and confined to the developed countries or mostly specific stressors.[9-10]

Keeping in view the different socioeconomic and cultural context of Pakistan, the emotional distress faced by undergraduate medical students needs exploration. Previous studies from Pakistan were quantitative, using questionnaires to measure the prevalence and severity of distress amongst medical students from Punjab and Sindh.[3,11-14] This study was planned to qualitatively explore the distressful emotional experiences and coping strategies of undergraduate medical students from a public sector medical college of Khyber Pakhtunkhwa,

TABLE 1: DEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS

Characteristics		Frequency	Percentage
Gender	Male	7	46.7
	Female	8	53.3
Professional Year	First Year	4	26.7
	Second Year	3	20.0
	Third Year	3	20.0
	Fourth Year	2	13.3
	Final Year	3	20.0
Admission	Open Merit	13	86.7
	Self-Finance	2	13.3

TABLE II: DISTRESSFUL EMOTIONAL EXPERIENCES FACED BY STUDY PARTICIPANTS

Themes	Sub-themes	Excerpts
Intrapersonal	Difficulty Adjusting	I feel very embarrassed in this unknown place as I have come from a very far flung area. The dry and red mountains around my institute worry me a lot (Female D1).
	Hypochondriasis	I might have a disease like cancer as I had read in pathology book that patients of cancer lose weight and I had few kilograms less than required weight (Male F3).
	Relationship issues	I am in emotional relationship with a girl and take deep interest in her. Although she also takes interest in me, yet I doubt her faithfulness…on one hand I love her a lot, on the other hand I cannot trust her (Male B4).
	Financial difficulty	The thing that troubles me a lot is the inability to afford going on picnic with class fellows. Whenever they invite me, I make excuses instead of telling frankly that I have limited money and cannot afford (Male I2).
Interpersonal	Peers-related	During first week of first year, I was much distressed when senior students were making me fool in front of all other students by compelling me to do unethical acts as walking like girls, dancing, putting off shirt before male and female students (Male A1).
	Teacher-related	A teacher told me in front of my batch mates during internal assessment that I would get supply in final examination as I had dropped two viva questions at that time. I was shocked after hearing these words (Female A1).
Systemic	Curricular change	First time modular system was applied on us in first year, which was extremely stressful…Neither the teachers were well prepared nor were the students oriented about it (Female B1).

Pakistan. The findings will help inform policies and practices for basic medical education in the region

METHODS

A qualitative narrative inquiry, based on cognitive appraisal theory of emotion was carried out from May 2018 till October 2019. Ethical approval for the study was granted by Ethical Board of Khyber Medical University, Peshawar Pakistan.

Conceptual Framework: A cognitive appraisal theory of emotion was used as conceptual framework.[15] This theory proposes that in response to an event, conscious and subconscious evaluation or interpretation of the event occurs i.e. appraisal of the event. According to Lazarus and Folkman[16] there are two levels of appraisal: primary appraisal of the event or situation and secondary appraisal of one's own coping capabilities to deal with the situation. This appraisal activates simultaneous physiological reaction and emotional experience. According to this theory we perceive the event or situation as a stimulus, respond psychologically through appraisal and bodily response followed by coping and reappraisal of the whole situation at the end.[17,18]

Interview Guide: Using cognitive appraisal theory of emotion, an interview guide was developed. The questions explored the narratives i.e. any unwanted events experienced by the students. Probing questions explored the 'whats', 'whys' and 'hows'. The students were also asked about their immediate or delayed reactions and coping strategies following the events. The interview guide was piloted (n=3) to check comprehension and then validated by the experts.

Data Collection: Sampling frame included self-labeled emotionally distressed undergraduate medical students of a public-sector medical college registering themselves for psychological counseling. After administrative approval, posters inviting undergraduate students (n=500) with anxiousness or depression or emotional problems were displayed in academic blocks. Forty-three students reported to the counseling center.

Semi-structured interviews were conducted with a purposive sample of 15 undergraduate students having high risk of psychological distress, as identified through Kessler psychological distress scale.[19]

Data Analysis: The narratives were anonymized and transcribed verbatim in Urdu. These were then translated into English and checked for accuracy of meaning after translation back into Urdu by two bilingual experts. The data were analyzed using thematic framework analysis. The transcripts were carefully read and analyzed using

TABLE III: COPING STRATEGIES ADOPTED BY STUDY PARTICIPANTS TO RELIEVE DISTRESS

Themes	Sub-themes	Excerpts
Emotion-focused	Kept quiet	I did not speak anything and was trying to digest (Male A1).
	Shared	After acute turmoil, I shared with my class fellows who counseled me that everybody was an adult and was responsible for his/her own actions. Therefore; I needed not to think of may be blamed for others' actions. Temporarily, I got relieved" (Male H1).
	Cried out	I cried a lot (FemaleB1).
	Submitted	I was boiling inside but did not show my reaction as seniors were more in number and I was alone. I thought that if I showed reaction, they would break my head instead (Male I2).
Problem-focused	Diverted attention	I would try to forget it by changing my focus to something else like starting playing games etc (Male E2).
	Confronted	I went to the office of that teacher and told him on his face that I did not expect such behavior from him (Female G1).
	Adapted	I changed my room as I could not live with that girl (Female E3).
	Used sleeping pills	After anger outburst, I usually take sleeping pills (Male G1).
	Investigated	At last I started investigating myself by doing laboratory tests and ultrasound to dig out a disease if any inside my body. When I find nothing abnormal, I get relieved temporarily. However; after some time I again develop the same fear and doubt the investigations (Male E3).
Meaning-focused	Reflected	After facing this situation, I thought one day I would become a great doctor, therefore the distress that I suffered from, would not be there that long. I should focus on my great goal (Male B4).
	Prayed	I also started saying prayers regularly and searched in net for spiritual material like motivational videos, etc. (Male G1).

five steps: familiarization; identifying a thematic framework, indexing, charting, and mapping and interpretation. Through constant comparison, reflective thinking and researcher discussions the themes were continuously refined to fit the data.

RESULTS

Participants were from both genders and all different professional years of MBBS. Most of them were on Open merit. All the participants were staying in hostels (Table I).

We identified various intrapersonal, interpersonal, systemic situations resulting in feelings of shame, inadequacy, insult, anger and sadness among students (Table II). The participants expressed difficulty adjusting to new environment during their initial days. Some reported becoming unduly alarmed about any physical or psychological symptoms they detected. They started doubting others and experienced financial difficulties. The participants also reported various distressful experiences associated with their colleagues and teachers. The curricular change process was also stressful. Our sample consisted of participants from all the professional years, however, the severity of distress reduced from first to final professional year.

The participants reported emotion-focused, problem-focused and meaning-focused coping strategies (Table III). Many kept quiet, shared, cried out and submitted to help diminish the emotional consequences of distressful events. Some looked for diversions, confronted, adapted, investigated and even had sleeping pills in their efforts to manage, modify person-environment relationship or eliminate the sources of stress. Others had drawn on their beliefs, values, and goals. It is worth mentioning here that most of the participants adopted multiple coping strategies simultaneously.

DISCUSSION

The study suggested that the undergraduate medical students experienced diverse and emotionally difficult situations. They used emotions-focused, problem-focused and meaning-focused strategies to cope with them. Various studies suggested that medical students face distressful emotional experiences worldwide as well as in Pakistan.[1,12,20] The females are more affected than males.[21,22] A multicenter extensive survey revealed that 45% undergraduate medical students were experiencing psychological distress.[4] A systemic review on prevalence of psychological morbidity in undergraduate medical students outside north America also concluded that 96.7% medical students had experienced psychological distress. A study conducted in Malaysia reported that 46% of students were having psychological distress.[1] A cross-sectional study carried out in Saudi Arabia in 2012, showed 71.5% prevalence of psychological distress in medical students.[21] In Iran, the prevalence of psychological distress was reported 61.47%, while in India the prevalence of only severe distress was found 46.3%.[23,24] We found that the severity of distress reduced from first to

final professional year. Literature also reports high emotional distress in the early professional years.[25] All these studies establish the fact that undergraduate education is considered stressful and challenging worldwide.

The themes identified various intrapersonal situations like difficulty adjusting in the new environment of undergraduate medical institution, mistrust in relationship, financial difficulties, and interpersonal issues like bullying by senior peer and infidelity of peers, discouraging remarks of teachers, and systemic issues due to the implementation of modular curriculum resulting in feelings of shame, inadequacy, insult, anger and sadness among students. In previous studies from Pakistan, academic pressure and psychosocial issues like frequency of examinations, high parental expectations, loneliness, health and family issues along with security and corruption in the country had been reported as stressors.[3,12] The differences from our findings may be because of the relatively more conservative socio-cultural context of our region where intrapersonal or interpersonal issues seem to have a bigger role. The literature also suggested that interpersonal issues especially those related to the teachers, are challenging for undergraduate medical students,[26] in line with our findings. Medical students need to be protected from preventable causes of morbidity and mortality. Institutions should ease the so called "pressure-cooker" environment in medical colleges. The curriculum should address and enlighten the social and mental aspect of students' training. The management should organize stress management seminars or suicide prevention events and ensure student counseling in campuses. The minimum we can do is to act as a placebo.

The participants reported emotion-focused, problem-focused and meaning-focused coping strategies. Literature refers to coping as cognitive and behavioral efforts to manage external and internal demands appraised as taxing.[27] Most commonly, the participants kept quiet or cried out to relieve it for the time being. Some also confronted the situations showing their assertive abilities, while others shared with friends or looked for diversions. Another study from Pakistan also highlighted going into isolation, sleeping, hanging out with friends along with other diversions such as engaging in sports and listening to music as coping strategies.[12] Emotion and problem-focused strategies for coping have been reported in the literature as well.[12,20]

Deepa R, et al.[26] reported similar strategies and termed them into adaptive and maladaptive coping strategies. Contrary to the studies reported from developed countries, where the distressed students were also found using drugs like alcohol, tobacco, and other drugs as escape from the distress. Only one of our students reported using sleeping pills.[5,28] This difference may be either because of under reporting of substance abuse in our social setup or ban in our country on liberal use of alcohol etc. Likewise, some students relied on meaning-focused strategies and resorted to reflection on their beliefs, values, and goals. Research has shown prayers and spiritual help seeking behaviors when experiencing stressful life situations.[29] An inverse relationship between religiousness and depression has been found, which becomes stronger as distress increases.[30]

All the participants were staying in hostels. A phenomenological study conducted in India reported that those living in the hostels are more vulnerable to emotional stress as compared to day scholars because of living away from their families.[26] The study only included medical students from one institution. However, they belonged to different gender, professional years and geographical regions of Khyber Pakhtunkhwa Pakistan. This limitation is partially justified considering the sensitive nature of the study. Also, this helped us closely examine the data within a specific context to provide detailed insights. As the participants knew the first researcher, this helped build rapport with the participants for them to respond freely and provide in-depth insights into their experiences. However, this may have limited their willingness to disclose information about the course, institution and the faculty. Despite of these limitations, the study bears important implications for institutions and policy makers with respect to designing the undergraduate medical curriculum and other interventions to provide a congenial learning environment for future doctors.

CONCLUSION

The undergraduate medical students experience emotionally difficult and diverse intrapersonal, interpersonal and systemic situations. They use emotions-focused, problem-focused and meaning-focused strategies to cope with distress. The coping strategies included submission, looking for diversions, praying, crying or taking sleeping pills. Undergraduate medical students need to be protected from preventable causes of morbidity and mortality. The institutions should help ease the 'pressure-cooker' environment and offer student counseling services in the campuses. The minimum we can do is to act as a placebo.

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AUTHORS' CONTRIBUTIONS

Following authors have made substantial contributions to the manuscript as under:

SAK: Conception, acquisition, analysis and interpretation of data, drafting the manuscript, critical review, final approval of the version to be published

AS: Study design, analysis and interpretation of data, drafting the manuscript, critical review, final approval of the version to be published

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

Authors declared no conflict of interest

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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