

## The Wounded Healers: a qualitative study of stress in medical students

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### ABSTRACT

**Aim:** To explore the reasons of stress in medical freshman, exploring the factors which act as stressors at entry in medical education.

**Methodology:** A qualitative study was conducted at Lahore Medical and Dental College, Lahore, Pakistan. Data was collected through two focus group discussions conducted with 20 first year medical students, who volunteered to be part of the study. A guide was used to assess the perceptions of participants regarding stress in their educational setting and coping strategies used by them. The interviews were transcribed verbatim and interpretative approach was used for thematic analysis of data. Data coding was done manually and scrutinized by all researchers to maximize reliability. Validity of the data was assured by sharing the interview transcripts with the participants.

**Results:** Three main themes emerged from the focus group discussions, namely, academic burden, non-academic pressures and coping with stress. Large content of first year syllabus, greater emphasis on attendance and passing tests and time management issues were mentioned by study participants as overwhelming stressors. Other sources of stress included pressures from parents to achieve academic excellence, tensions about future, loss of confidence, mood changes and bullying by peers and teachers. Most participants tried to cope by disengagement, self-distraction and substance use.

**Conclusion:** Freshman experience many academic, personal and inter-personal stressors in medical education which cause strain on their physical, psychological and social well-being. However, students are not prepared to cope with stress in a positive way.

**Keywords:** Stress, medical students, freshman, education, coping strategies.

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### INTRODUCTION

Mental health is defined as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community” (WHO, 2004). Evidence suggests that transition from high school to a competitive environment of medical education is negatively associated with mental health (Soliman, 2014, Thangraj & D’souza, 2014), resulting in stress in medical students (Daud et al., 2014). Psychological stress occurs when an individual perceives that environmental demands exceed his or her adaptive capacity (Cohen et al., 2007). Too much, persistent and unmanaged stress can significantly ruin students’

well-being (Abdulghani et al., 2011) and has many negative implications on rest, diet and sleep patterns (Dunn et al., 2008). Stress is also linked with academic shortcomings, substance abuse, damaged relationships with peers, friends and family, depression, burnout and low self-esteem (Chauhan et al., 2014, Al-Dubai et al., 2011). Failure to address stress in a student’s life may further cause cynicism and apathy towards academics, faculty, patients and the medical profession in general (Dunn et al., 2008).

When faced with un-avoidable stressors, medical students learn to find ways to cope with them. Coping is described as the “cognitive and behavioral efforts made by individuals in order to meet the requirements and overcome the difficulties created by their internal and external worlds, to keep things under control and reduce tension” (Folkman et al., 1986). The most widely used dimensions of coping mentioned in literature are either positive or negative and are categorized into, problem or emotional focused, primary or secondary control and engagement or dis-engagement or avoidance (Compass et al., 2001). Engagement or approach coping is aimed at dealing with the stressor or related emotions, and disengagement or avoidance coping,

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is aimed at escaping the threat or related emotions. Positive coping approaches gear students to actively work toward solving problems while negative tactics have often made stress worse as they are either temporary distractions or wear down a person over time. The academic, social, environmental and personality factors all contribute substantially on the choice of coping method adopted by the students (Braun & Clarke, 2006).

Stress in medical students is receiving attention in literature, questioning the ability of distressed and anxious doctors to provide high-quality healthcare. Very few studies have probed into the feelings and perceptions of medical students to assess the impact of constant strain on their personal, social and academic life. The aim of our study was to conduct an in-depth analysis of stress in medical freshman, exploring the factors which act as stressors at entry in medical education.

## METHODS

The present qualitative study was conducted at Lahore Medical & Dental college (LMDC), affiliated with University of Health Sciences (UHS), Lahore, Pakistan. LMDC is a private sector institution, which follows a traditional subject based curriculum. A purposive sampling technique was used to recruit 20 first year MBBS students (both male and female) on voluntary basis. Data was collected through two focus group discussions (FGD) with ten participants in each group. Three researchers were present at the FGDs, one conducted the sessions, while the other two took field notes. The notes documented salient features of participants' verbal account of their perceptions, their gestures and facial and linguistic expressions. Verbal informed consent was obtained from the students prior to data collection, for audio recording the interviews and publication of data, ensuring anonymity. Approval for the study was granted by the Ethical Review Committee (ERC) of LMDC, Lahore.

A study guide was used to explore participants' experience, feelings and understanding of stress, reasons for stress in their educational setting, coping strategies for stress and recommendations to reduce stress. The interviews were transcribed verbatim and interpretative approach was used for thematic analysis of data following the Braun & Clarke (2006) guidelines. Data was hand-coded and the analysis was an inductive process, comprising of multiple stages. We began with data immersion for familiarization through repeated reading of transcripts and field notes, interposed with periods of listening to audio-recordings of the interviews. After sifting, data was reduced by generating initial meaning units

(initial codes) out of *data corpus* (raw data), at the same time, identifying patterns across the entire data set. The initial codes were recorded in the left margin of text. Next, the coded data that seem to cluster together due to common attributes and meaning were condensed into over-arching categories. The preliminary themes emerging from the two FGD transcripts were reviewed and merged into final consensus themes (central themes), which were named and elucidated with quotes in the transcripts to ensure their adequate grounding in the data (Figure 1). Initially, data were coded independently by two researchers. Subsequently, inconsistencies in coding were discussed and resolved among all researchers, to maximize reliability (researcher triangulation). Validity check of created themes and sub-themes was conducted by returning to the participants to determine if the essence of the interview has been captured correctly.

## RESULTS

Three main themes emerged from the FGDs:

1. Academic Burden
2. Non Academic Pressures
3. Coping with Stress

**Academic Burden:** Academics were mentioned by study participants as overwhelming source of stress.

**High academic demands:** Participants complained about struggling with large content of first year syllabus and there was strong disapproval of the entire focus of campus life on attendance and continuous lecturing. A participant commented:

*"We have continuous lectures one after another for three hours. There are no breaks in between. There are no activities to relax during college hours. We have no active societies, parties, in-house movies or recreational trips. There is no sports complex for day scholars".*

Curriculum and teaching concerns

Students disapproved the great emphasis placed on passing test rather than achievement of deep understanding and learning. One of the participants elaborated on these concerns and commented:

*"We like doing practical work as we feel that we are learning skills. In Biochemistry and Physiology practical class most of the time we have to copy written instructions of how to conduct experiments in our practical journals rather than doing actual work".*

Test related anxieties

Fear of failure and not being able to prepare each test satisfactorily were perceived to be discouraging. One of the participants commented:

*"At times, there is only a gap of one day between two tests and for every test, the teachers keep on adding*

*topics till the last moment and we are bound to fail at least one of the tests”.*

Time management issues

Time pressure and inability to meet targets was a burning issue which added to the anxiety of the students. One of participants remarked:

*“We are always stressed out as we are not able to meet deadlines. Compared to us, those colleges which follow semester system have more time for study and recreation”.*

**Non Academic Pressures:** Students were troubled by many personal, interpersonal and family issues.

**Family related concerns:** Those students who were residing in hostel were missing their families, which was posing a problem for them in settling down. For some students, coping with parental demand of achieving academic excellence was adding to their emotional stress. One participant observed:

*“Parents are always complaining about attendance and test results. They do not understand how we cope with study pressures. Parent emotionally black mail us, as they are paying for our studies and at the end of the day, they want results”.*

Financial difficulties were not common among students of LMDC, but one of the participant reported:

*“I know a student whose parents have taken a loan for his studies. He is brilliant in his studies but is always worried whether there will be enough funds to support his studies next year or not”.*

**New Frustrations:** Many personal problems were highlighted by participants, like worries about getting jobs, health concerns, language barrier and nervousness in facing large audience. Students described feelings of desolation and hopelessness or changes in their mood and abilities:

*“Being under constant mental pressure causes lack of focus and you are unable to manage anything. This results in irritability. We break down and become indecisive about priorities. Then a time comes when either you stop caring or stay angry all the time”.*

Peer Problems

Participants of the study expressed grave concern about bullying by some of their class mates which was demoralizing and nerve wrecking. There was peer pressure to join one group or the other. The peer interference was explained by a participant:

*“Some students don’t study themselves and don’t let you study as well. When you fail a test, the girls who passed and received good grades will come up to you and taunt at you or ridicule you in front of everyone and make you feel like losers”.*

Teacher related worries

First year medical students were perturbed by the offensive attitude of some of the teachers. One of the participants narrated:

*“Some teachers insult students who are unable to answer questions in class. Teachers give harsh comments or may punish us by marking us absent even if we are physically present”.*

Participants did not show much confidence in communicating with their teachers to solve their problems, as they were of the mind-set that it will further aggravate their situation.

**Coping with Stress:** The main coping styles adopted by students involved release of emotions, escaping the stressful situations, exercise, substance use and seeking divine help.

**Disengagement :** When stressed out, the participants mostly tried to detach themselves from people and academic activities. Most of them recounted missing classes and tests, sleeping for long hours, crying and not communicating with anyone as modes of catharsis. Some students developed self-pity and apathy and labeled themselves unfit to be good doctors of tomorrow:

*“There is no need to study as we are not getting the required results and we are surrounded by tensions which are too much to handle. We are here to become doctors not patients, but with so much stress, we ourselves are the wounded healers”.*

Contrary to the indifference expressed by some participants, others isolated themselves to work harder on their academic shortcomings and spent more time in self-study.

Self-distraction

Distractions pursued by students to evade stress involved spending time and outings with family and friends, shopping, listening to music and watching movies and television. Binge eating during stress was acknowledged by majority of participants, wholesome admitted to stop eating completely. Workout was mentioned by very few males as a mode of stress reliever. Some students relaxed themselves through religious activities. One of the participants explained:

*“When I am down, I like to say prayers. This relaxes me and gives me strength to bear pressures”.*

Substance use

Substance abuse was reported by students as a reaction to stress. One the participant was very vocal in admitting that:

*“I have started smoking. I know a few of my class fellows who are now smoking two packs a day. A few of them have started indulging into alcohol and the worst is that some students are injecting themselves with drugs”.*

## DISCUSSION

First year medical students of our college were highly stressed in the effort of proving themselves academically, handling personal and inter-personal

issues and finding their own solutions to deal with stress. The main stressors highlighted in the present study were scholastic in nature. According to prior research, most medical programs are overloaded with large amount of information, non-prioritization of educational content and students inevitably spending most of their time in mastering facts or adjusting to long hours of academic work (Daud et al., 2014, Chauhan et al., 2014, Naidoo et al., 2014, Kötter et al., 2015, Sani et al., 2012). Comparable studies have drawn attention to curricular discrepancies, dissatisfaction with too many lectures and greater emphasis on attending lectures rather than achieving optimal contextual learning (Kötter et al., 2015, Sani et al., 2012). Burden of vast medical course in first year has been observed to pervade students undergoing both teacher-centered and learner centered curricula (Soliman, 2014). Students in other medical schools have also complained about few avenues for in-house entertainment and inability to pursue hobbies during professional training (Sani et al., 2012, Shah et al., 2014, Gomathi et al., 2012).

Test anxiety was a major cause of stress in our study. Prior enquiries have labeled test phobia as the most likely cause of underachievement, low performance, demotivation and psychological distress (Sani et al., 2012, Saravanan et al., 2014). Evidence also supported that first year medical students are more vulnerable for test anxiety (Sani et al., 2012, Saravanan et al., 2014), especially if there is lack of coordination among the subjects of tests within the same week (Pereira & Barbosa, 2013). Students who experience test anxiety exhibited psychological symptoms include tension, lack of concentration, worries and stress (Saravanan et al., 2014). Other researchers have reinforced the findings of our study and mentioned time pressure, getting behind in work and conflicting demands as demotivating (Sani et al., 2012, Altaf et al., 2013). Time management issues were not just limited to traditional curricula but also seen in integrated student centered curricula (Soliman, 2014).

The non-academic stressors faced by our students were similar to those mentioned in other studies which suggested that first year students are stressed while adapting to a new program (Shankar et al., 2014), change of living conditions (Daud et al., 2014), having to struggle with feelings of homesickness and high parental expectations, set in the backdrop of fitting in a new culture of medical education (Daud et al., 2014, Chauhan et al., 2014, Al-Dubai et al., 2011, Gomathi et al., 2012). Freshmen usually report anxieties related to their future (Chauhan et al., 2014, Gomathi et al., 2012), ill health, physical problems (Abdulghani et al., 2011) and language difficulties where students' mother tongue

was not English (Chauhan et al., 2014, Gomathi et al., 2012). Issues related to peer pressures and misbehaviors are also frequently reported in medical schools (Chauhan et al., 2014, Sani et al., 2012). Financial worries were not a common finding in the present study. This could be because private institutions cater for well-to-do families and just like our scenario, majority of students were funded by their parents (Gomathi et al., 2012). Widely reported negative consequences of stress on personalities of freshman include cynicism, mood disturbances, frustration, low self-esteem, apathy and depression (Abdulghani et al., 2011, Saravanan et al., 2014). Like our study results, trouble with teachers and reluctance to approach them for help has been frequently mentioned by students in other medical colleges (Al-Dubai et al., 2011, Barikani, 2008).

The *wounded healers* in our study were worried about their capacity to perform as efficient doctors of the future. Comparable concerns were highlighted by other medical students about not being able to evolve into good doctors in the wake of stressful challenges during medical training (Chauhan et al., 2014). Researchers have identified that qualities of compassion, integrity, empathy, professionalism, and commitment to service in a physician will only flourish when they have sound mental health, early in their training (Dunn et al., 2008).

Our participants mostly resorted to emotional focused coping strategies like disengagement, self-distraction and substance use. They were combatting stress by repeated absence from lectures, sleeping or crying. Disengagement or avoiding stressful situation through self-isolation (Rahman et al., 2013), finding distractions (Soliman, 2014, Shankar et al., 2014) and physical exercise (Rahman et al., 2013) are common coping strategy exercised by medical students. Few students in our FGDs admitted to have started smoking under pressure, but they also hinted at others, who may be taking anti-depressants, tranquilizers or other drugs. Evidence supported that substance abuse is a grave side effect of unmanageable stress among medical students (Chauhan et al., 2014, Gomathi et al., 2012). Seeking strength from religious activities has also been cited in literature as a frequent stress reliever (Shankar et al., 2014).

The main limitation of the study was that it was conducted in a single private sector institution.

## CONCLUSION

Stress in medical education is a deep rooted global phenomenon which starts as soon as students enter medical college. However, freshmen are not equipped to positively cope with stressful situations. Stressors

in medical education need to be identified and controlled. Pastoral interventions to prepare students for coping are suggested through seminars, counseling sessions, student feedback. Recreational and sport activities should be an integral part of campus life. Vigorous training of medical teachers is required to make medical education an interesting and enjoyable experience rather than a stressful and debilitating consequence. Further research is required to gain more insight stressors arising in medical education both in the public and private sector universities.

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Figure 1: Data analysis: codes, categories and themes

