ABSTRACT

A Comparative Assessment of Stress Levels between Initial and Final Year MBBS Hostel Residents of a private medical college in Lahore

ISMAIL MAZHAR1, QUDSIA UMaira KHAN2, NOUMAN ASAD3, HUNNIYA BINT E RIAZ4, KHAWAJA HAIDER SAMI5, AIZA FAISAL KHAN6

1-2nd Year MBBS Student, CMH Lahore Medical College and Institute of Dentistry, Lahore, Pakistan
3-Associate Professor Physiology, CMH Lahore Medical College and Institute of Dentistry, Lahore
4-Final Year MBBS Student, CMH Lahore Medical College and Institute of Dentistry, Lahore, Pakistan
5-2nd Year MBBS Student, CMH Lahore Medical College and Institute of Dentistry, Lahore, Pakistan
6-Correspondence to Ismail Mazhar, Email: ismailmazhar8899@gmail.com Phone: +92 345 8329979

INTRODUCTION

The life and personality of humans is an amalgamation of socioeconomic position of the family, the generic legacy and differences in opportunities and environment of receiving education. Speaking of education, hostel life provides students a reciprocal chance to learn perceptions of religion, ethics, and morals1. Additionally, an excel in achievement of educational targets requires body and mind health. According to the World Health Organization, health is defined as a condition of ample physical, mental, and communal well-being.2 However, stress is an unavoidable response of the body to the demands and disturbing events in the environment resulting in sadness, worries, tension, and frustration.

It is a fact that during their education journey, students experience a wide range of overlapping psychological difficulties like stress that contribute to functional impairment. In the medical school context, a mixture of emotional and environmental stress presentations like depression and burnout are likely to occur and sadly could lead to suicide, alcohol, or substance abuse both among males and females.3 Many research works suggest that gender differences occur in perceptions of stress and the consumption of resources that can help to lower the effects of stress-causing factors.4 Despite gender differences, stress and depression are significantly high in medical students, especially for the hostel dwellers away from home and whose issues with various stress-creating situations. The study highlighted the issue of whether stress was based on personal capacity of coping with situations or is enhanced by stress caused by the difficulty level of studies at medical college.

Stress: The roots of stress visibly prevail in the social system. Stress is defined as a compound, multidimensional undesirable emotion5. Stress and Students: Students are likely to face environmental stress like academic and institutional stress along with emotional stress like issues with family and economic stress. It is reported that a desire for academic attainment, insistence from parents, and wish and aspiration to follow higher education aspirations are some of the consistent pressures faced by the students. A study explored the effect of academic stress on students’ performance and found the impacts of gender, age, and educational level on academic performance6. Another study found a significant effect of academic stress on the performance of male and female students being higher in junior students. Stress and gender: Gender differences necessarily appear in various stress levels. Females are reported to show a higher level of stress as compared to males. A recent research reported that women are reported to experience lasting and slight stress in daily life as compared to men and perceived more negative and uncontrollable events in their lives. Another study investigated gender differences in stress and concluded that girls reported progress in confronting stress after they received positive social support. Another research depicted that males engage in strategies to gain self-control while females prefer to receive social support to help them. Stress and Professional Education: Many studies declared that college and professional students have higher stress levels. Psychological breakdowns and mood disorders are common among university students affecting the mood, behavior, and outlook of the person, along with sleeping and eating habits.

Stress and Medical Students: Medical students confront many factors during their academic and clinical study that could lead to high levels of stress, depression, and anxiety, thus, stress is higher for medical students. Thus, factors like academic...
requirements, time pressure and social adjustments, large workload, time commitment, the number of assessments, and a pressurized clinical environment add to stress. About one-third of medical students worldwide are affected by stress showing nervousness, burnout, suicidal feelings, and drug abuse. Hostel Life and medical students: Hostel life enables the students to learn to live independently while compromising, but they may face numerous problems like financial crises, adjustment matters, personal powerlessness, anguish, deviations in eating and sleep behaviors, etc. This creates emotional and environmental stress that demands more than adaptive capacity and psychological pressures.

Therefore, students’ help-seeking behavior during their stay at medical school is important to avoid workplace accidents among doctors. It is also found that stressed doctors make six times more medication errors as compared to the ones not stressed. A longitudinal observational study at the Medical School of the University of Minho, Portugal, signified anxiety and burnout among medical students during medical training.11 Another study on hostel medical students depicted that stress could be cured through motivation, clinical environment, workplace wellness model, integration of hosts and faculty-led support, and curriculum management.12

The above literature review suggested a paucity of studies on stress among medical hostellers in Pakistani scenario. Thus, the present study highlighted the comparison between responses of senior and junior medical hostel students regarding their experience with various emotional or environmental stress situations. This study would benefit the students to realize their reactions to commonly faced situations that can cause stress. This would help them develop a better understanding of self as a stress-free mind is essential for smooth studying capability. The results would also help the mentors to focus on the availability of psychological help to students to study with a relieved mind for a better focus and hence better academic scores. The study could be extended for future to other hostels in different colleges. The study could be planned by comparing stress levels between hostel and day scholars.

METHODOLOGY

This comparative, cross-sectional study was conducted at CMH, Lahore Medical College, from February 2022 to April 2022. Inclusion criteria were medical students consenting to undertake the study from initial and final years. Exclusion criteria were nonmedical students along with third- and fourth-year medical students. The sample size was calculated using the Cochran formula, which estimated to be 125, using a z value of 1.96 for 95% confidence level, standard deviation of 1.55, Z2 of 0.84 power, μ1 of 3.69 and μ2 of 3.14. Purposive sampling technique was used for the research. The questionnaire was distributed after informing participants about the objective of the study. The study was approved by the College Ethical Review Committee. The structured questionnaire with 24 items measured stress through situations likely to occur in hostel life. The 5-point Likert scale against each item was never, sometimes, many times, often, and always. Data was processed in SPSS, version 23. The collected data was analyzed by applying the descriptive statistics (compare means) and the difference in ratio was measured through independent sample t-test and chi-square test at 0.05 significance level. Moreover, for validity, the questionnaire was also checked by experts in field. The reliability of the questionnaire was measured by applying Cronbach alpha.

RESULTS

The data was analyzed through SPSS and presented in tables and figures for clarity. Initially, the data was presented in the following categories: gender, level of education, name of the hostel, environmental and emotional stress among males, females, and different levels of education. Data was collected to find out the stress level of the initial and final years in terms of environmental and emotional factors from equal number of male (60) and female (60) hostellers. Moreover, there were an equal number of hostellers from the initial year (60) and final year (60).

The analysis of the major environmental factor contributing to stress was lack of medical facilities (M=2.86), then hostellers responded that differences in the eating habits among the hostel fellows were also a serious cause of their stress (M=2.50), the change of taste in water also contributes to stress (M=2.40) and lack of freedom in hostel life as well (M=2.31), some other factors were also highlighted such as congested hostel rooms (M=1.89), difference in lifestyle among hostel fellows (M=1.71), skirmishes among various groups in the hostel (M=1.67), tasteless food (M=1.62) least highlighting environmental factors were, accessibility of electricity, difference in the cultures of home town and hostel. Pressure to do the things which are out of their comfort zone (M=1.61) and strict hostel rules (M=1.50).

The data further represented that the major emotional factors contributing to stress were disloyalty of hostel fellows and unwelcomed indulgence in activities (2.9), lack of financial assistance, and difficulty in building relationships with hostel fellows were also a cause of stress among hostellers. The presentation of emotional factors was stressful for both emotional factors (M=76.1 for males, 75.6 for females). The comparison of the data further depicted that emotional factors (M=6.1 for initial year, 7.56 for final year) was causing more stress as compared to the environmental factors (M=24.1 for initial year, 23.1 for final year). The data also showed that initial-year hostellers faced more environmental stress (M=24.1 for initial year, 23.1 for final year) as well as more emotional stress (M=76.1 for initial year, 75.6 for final year) as compared to the final year students. Furthermore, initial-year hostellers experienced more environmental and emotional stress than final-year students.

DISCUSSION

This study was conducted to highlight the factors causing stress among medical students residing in hostels. There are many factors that may cause stress. This study focused on environmental and emotional stress. Data was collected from initial-year and final-year students to compare their stress levels. The collected data was analyzed by applying different statistics. The data of responses on factors that caused environmental stress were analyzed and presented in Table 1. Table 2 presented the data collected from responses that dealt with emotional factors responsible for causing stress among hostellers. The comparison of the data further depicted that emotional factors (M=76.1 for males, 75.6 for females) caused more stress as compared to the environmental factors. The analysis was also made on a comparison of environmental stress and emotional stress between initial year and final year hostel residents. The analysis highlighted that emotional factors (M= 6.1 for initial year, 7.56 for final year) was causing more stress as compared to the environmental factors (M=24.1 for initial year, 23.1 for final year). The data analysis further highlighted the comparison between responses of senior and junior medical hostel students regarding their experience with various emotional or environmental stress situations.
for initial year, 75.6 for final year) caused more stress as compared to the environmental factors. The results are presented in Table 3.

Table 1: Environmental factors causing the stress

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility of electricity for a lesser duration</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.6167</td>
<td>.75546</td>
</tr>
<tr>
<td>A difference taste of drinking water than in hometown</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>2.4863</td>
<td>.51033</td>
</tr>
<tr>
<td>The size of the hostel room is small to facilitate learning</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.8917</td>
<td>.77564</td>
</tr>
<tr>
<td>Tasteless food</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.6250</td>
<td>.64901</td>
</tr>
<tr>
<td>Skirmishes among various groups in the hostel</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.6750</td>
<td>.66310</td>
</tr>
<tr>
<td>Strict hostel discipline</td>
<td>120</td>
<td>1.00</td>
<td>2.00</td>
<td>1.5083</td>
<td>.52030</td>
</tr>
<tr>
<td>Variance in the hometown and hostel culture</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.6167</td>
<td>.66337</td>
</tr>
<tr>
<td>Inadequate hostel freedom</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>2.3167</td>
<td>.85978</td>
</tr>
<tr>
<td>Unavailability of medical facilities in the hostel</td>
<td>120</td>
<td>2.00</td>
<td>3.00</td>
<td>2.8667</td>
<td>.34136</td>
</tr>
<tr>
<td>Differences in the lifestyle of myself and other hostel fellows</td>
<td>120</td>
<td>1.00</td>
<td>3.00</td>
<td>1.7167</td>
<td>.74680</td>
</tr>
<tr>
<td>The difference in eating habits of oneself and fellows</td>
<td>120</td>
<td>2.00</td>
<td>3.00</td>
<td>2.5083</td>
<td>.50203</td>
</tr>
</tbody>
</table>

Valid N (listwise) = 120

Further, the data was also analyzed to compare the male and female stress levels and it highlighted that females experienced more environmental and emotional stress than males. Initial-year students experienced more environmental and emotional stress than final-year students.

The environmental highlighted factors: The data represented that the major environmental factor was lack of medical facilities (M=2.86), then hostellers responded that different eating habits among the hostel fellows were also a serious cause of their stress (M=2.50), the change of taste in water is also creating stress (M=2.40), and lack of freedom in hostel life as well (M=2.31), some other factors were also highlighted such as the congested size of rooms (M=1.89), the difference in the lifestyle among hostelers (M=1.71), skirmishes among various groups (M=1.67), tasteless food of the hostel mess (M=1.62) least highlighting environmental factors were, accessibility of electricity, the difference in the cultures in home town and hostel and strict hostel rules (1.50).

The highlighted emotional factors: The data represented that the major environmental factors were disloyalty of hostel fellows and unwelcomed indulgence in activities (2.9), lack of financial assistance, and difficulty in building relationships with hostel fellows (M=2.6), then highlighted factors were the non-cooperative attitude of hostel fellows furthermore hostellers responded that insensitive attitude of hostel warden and lack of care during sickness also causes stress (M=2.2, M=1.9 respectively), homesickness also cause great stress (M=2.0) negligence in support from hostel friends (M=1.9), the least highlighted factors were disturbance by hostel fellows during exams (M=1.7), and doing all work by their own (M=1.1).

CONCLUSION AND RECOMMENDATIONS

The study undertaken investigated two kinds of stress, environmental and emotional, among initial and final-year medical students residing in hostels. It is concluded that the students were more affected by emotional factors causing stress. It was also found that stress level was higher among initial-year students than final-year students. The initial year students were more prone to facing and had less capacity to cope and handle the surprising or routine events and factors that cause stress. However, with the passage of time, they were used to these situations with more tactics and capacities to face and handle unpleasant events. The study also concluded that female students were more sensitive to stress-causing situations as compared to male medical students.

The results of the study highly recommend that as students from farfetched areas live in hostels to pursue higher and better educational facilities, it is integral for the institution to assure a high level of comfort zone in accord with the nature of each student. It was vital to ensure medical assistance inside the hostel with medical availability. Improving the quality of food could be an answer to many discomforts too.

REFERENCES


6. Adrados AR, Martinez SF, Pascual BM, Gonzalez-de-Ramos C,


