

Effect of parental relationships on stress levels of students in a medical college

Ashraf Hussain¹, Hamza Mustufa Khan², Hania Ahmer³, Shahmeer Zafar⁴, Saad bin Altaf⁵, Sajjeel Ahmed⁶, Safura Awais⁷

¹ Professor, Department of Anatomy, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan

²⁻⁷ Student, Department of Medicine, Shifa College of Medicine, Shifa Tameer-e-Millat University, Islamabad, Pakistan

Author's Contribution

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³ Article writing, data collection

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Correspondence

Ashraf Hussain

ashraf.scm@stmu.edu.pk

A B S T R A C T

Introduction: Multiple studies have been conducted on the theme of stress faced by medical students due to the load of medical education and lack of adequate stress coping skills which may affect the students variedly.

Objective: To critically assess stress levels in medical students of Shifa College of Medicine (a private medical college in Islamabad, Pakistan) and the quality of relationship between students and parents, thereby studying a relationship between the two.

Methodology: A cross-sectional study was conducted among the students of Shifa College of Medicine. A sample size of 315 students filled a pretested student stress questionnaire, which was made using the student life stress inventory survey consisting of 34 questions. Data was then analyzed using SPSS version 23.

Results: Increased levels of stress were found to be common among medical students with a prevalence of 53.3% among our study group. A total of 65.7% students face stress due to the increased expectations of their parents. There was a positive correlation ($p < 0.05$) between stress faced by medical students and their relationship with parents. Academics, lack of recreational time and high self-expectations were also major contributors to student stress.

Conclusion: It can be concluded that there is a positive relationship between parental involvement and medical student stress at Shifa College of Medicine, which manifested in the form of excessively high parental aspirations, leading to adverse effects on the academic, social and personal life of a medical student.

Keywords: Stress, medical students, parental involvement

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Introduction

Stress is defined as the body's non-specific response to any demand or change in the environment.¹ Various studies^{2,3} have been performed to show incidence of stress among students in different medical colleges. Each showed a different level of stress among the participants.

In some analyses,^{4,5} albeit intuitively, parental involvement has been operationally defined as parental aspirations for their children's academic achievement and parents' their conveyance of such aspirations to their children. Parental involvement plays a pivotal role in the academic and personal life of a student.⁶ A huge

workload⁷ coupled with high parental expectations can put a lot of burden on the mental health of a student.

The degree of parental attachment of the student also determines the effect parental expectations have on a students' mental well-being.⁸ Adolescent-parent attachment has special effects on reasoning, social and emotional life of the student.⁹ Secure attachment is linked with fewer psychological health difficulties, and improved societal skills and coping strategies. Insecure attachment is related to anxiety, stress, depression and personality disorders. So, one of the factors to decrease stress is attachment.¹⁰

However, while such researches have been conducted in Pakistan and specifically, Islamabad, we noticed that not many linked the amount of stress to the relationship of a participant with his/her parents. Henceforth, the reasoning of this research is to appraise the relationship between parental attachment and stress in students of Shifa College of Medicine.

We aimed to critically assess stress levels in medical students at Shifa College of Medicine and to examine the different areas of stress faced by student, comprised of four categories. These categories consisted of stress faced due to academic factors, stress faced due to social factors, stress attributed to personality traits and a category to determine the quality of the student/parental relationship. This would help determine any correlation between stress faced in three of these categories with the trait assessed in the final category, namely, the relationship between participant and guardian.

Through this study we hope to raise awareness to the problem presented as stress, and how parents can work with their children to reduce this, making life better for both parties and ensuring a brighter future for the children involved. This would enable the university to have a better understanding of the problem and they would be in a better position to develop action plans to help their students to manage their stress, paving the path to ultimately achieving the university's goal of producing excellent and high-quality medical graduates.

Methodology

A cross sectional study was conducted among the students from years 1-5 studying in Shifa College of Medicine, Islamabad, Pakistan.

A pretested student stress questionnaire was used to assess the effect of parental relationships on student stress. Some questionnaire items were borrowed from a validated student life stress inventory questionnaire developed by Gadzella BM in 1994¹¹ which was also later adapted in 2012.¹² Our questionnaire consists of 34 questions with answers based on a 5-point Likert scale, as well as two (Yes/No) questions asking about the current state of the participant's parents.

For the Likert scale questions, the students responded by making a choice from the five possibilities

provided. These possibilities were divided into two as follows: the statements portraying positive feelings were scored in the following ways: Strongly agree – scored five points, agree – scored four points, Neutral – scored three points, disagree – scored two points, strongly disagree – scored one point. On the other hand, statements portraying negative feelings were scored in the following manner: Strongly Agree – scored one point, agree – scored two points, Neutral – scored three points, Disagree – scored four points, strongly disagree – scored five points.

A sample size of 315 students was calculated using the WHO sample size calculator. Simple random sampling was employed as the selection technique of the subjects ensuring that every student from each of the years (First – Fifth) had an equal chance of selection.

To ensure content validity, the questionnaire was given to the head of Department of Psychology in Shifa Tameer e Millat University (STMU) who examined the questions critically, based on which the researcher then modified the items and necessary adjustments were made. Data was analyzed using SPSS version 23.

Research Ethics Committee (IRB) approval was obtained before starting the data collection and debriefing done. A consent form was signed by the participants before filling the questionnaire who were allowed to ask any questions regarding the research and had the autonomy to withdraw from the research if they had to. The respondents were assured of their anonymity and confidentiality by asking not to write their names on the questionnaire. The only personal information retained were the participant's gender, age and the year they currently study in.

Results

During the study 315 students completed the questionnaire. From these, 138 were females and 154 were males. However, no significant difference was found in the results from each gender.

We discovered that, among these students, a total of 212 out of 315 (67.3%) participants felt a significant amount of stress. Around 168 (53.3%) of the total sample size attributed high stress levels to have some sort of correlation with the quality of relationships with the parents and guardians. Another aspect of this research

consisted of determining major stressors felt across the most students. Frequencies for the highest felt stressors across all four categories are shown in Figure 1.

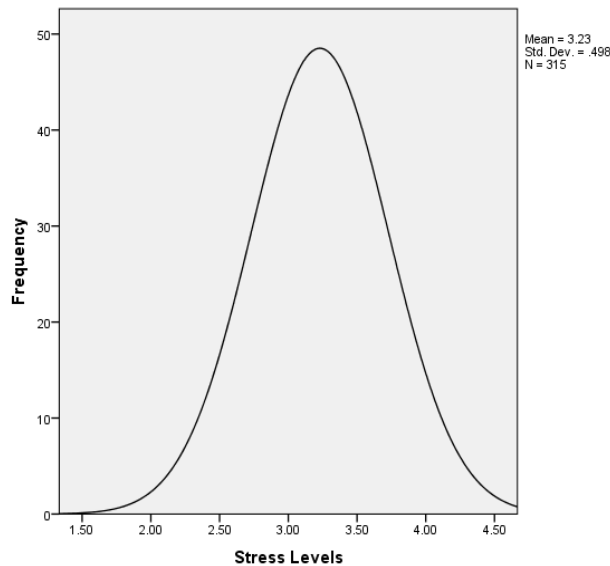


Figure 1: Frequency of average stress levels faced by students plotted along a scale of 1-5 (with 1 being the least stress and 5 being the most)

Through our survey, we realized that most students face stress due to the increased expectations of their parents to achieve good grades in their tests (65.7%) as shown in Figure 2. In the realm of personality traits, we discovered that many students possessed a tendency to procrastinate (74.9%). It was also discovered that students face most academic stress due to the overload from attempting too many things at once (76.5%). Major contributions to social stress were supplied primarily by the lack of holidays given to students (73.3%).

A Pearson correlation test (significance was valued at the 0.05) showed multiple correlations between stress levels in three different aspects of a student's life (Academics, Social and Personality) and stressors due to strained relationships between participants and their parents, as shown in Table 1. A negative correlation was obtained between good parental relationship and academic stressors with a p value of 0.733 and another negative correlation with personality traits ($p = 0.23$) was also found. It is worth noting that stress faced due to social aspects of a student's life is independent of their relationships with their parents, as shown in Table.1

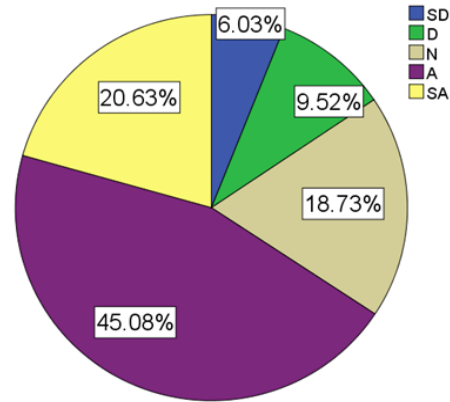


Figure 2: Frequencies of stress faced by students due to parental expectations. (SD – Strongly Disagree, D – Disagree, N – Neutral, A – Agree, SA – Strongly Agree.

A significant relationship between the students' inability to achieve desired grades and the amount of time parents could allow for the student to study was not found ($p=0.679$). Another study related stressor, that stemmed from the difficulty of the syllabus itself was not related to the decision of parents to force the students to join the medical field ($p=0.340$)

Table 1: Significance level of bad parental relationship.

Bad relationship with parents	p value
Stress due to academic reasons	0.002
Stress due to social reasons	0.000
Stress due to personality traits	0.003

In the students who had the tendency to worry a lot, there was no association of this trait with the parents listening and talking about their problems ($p=0.300$). However, this same parental stressor had a significant correlation with the students who underwent verbal or physical abuse by their peers ($p=0.015$). There were also significant correlations between various student and parental stressors which are shown in Table 2.

Table 2: Significance level of different stressors

Student and parental stressors	p value
My parents allow me enough time to study properly	0.000
Difficulties in covering a large syllabus	0.000
My parents expect me to excel in my exams	0.021
Inability to achieve desired grades	0.021
Small arguments with parents	0.000
Feeling incompetent	0.000
Provision of basic necessities by parents	0.013
Social unacceptance	0.013

Discussion

The present study confirmed the general impression that stress is common among medical students with a prevalence of 53.3% among our study group in the four categories: stress faced due to academic factors, social factors, personality traits and the quality of the student/parental relationship. Various studies have been done to approximate the number of students who feel a certain amount of stress, with some research listing it as being up to 78.19% of students.^{2,13}

There was a significant relationship between student stress and parental expectations, which were found to be the major stressor in 65.7% of the students. These results are consistent with research carried out in Nepal¹⁴ and United Arab Emirates.¹⁵ A significant association between family problems and psychological morbidity has also been reported in similar researches.¹⁶

This study examined the effect of parental pressure on a medical student's academic activities, social life and personality traits. As mentioned previously, we have found that students who have better relationships with their parents' face decreasing stress in both academic and personal categories, as opposed to students who have a worse relationship with their parents. These students faced a significant amount of stress throughout all categories, Academic, Social and Personality traits. We also discovered that social stress faced by students was not affected even in students who had good relations with their parents. A few researches have related social stress to other factors, disregarding parental influence.

A p value of .021 was found in the correlation of students who face stress due to inability to achieve their desired grades, and also experience stress due to high parental aspirations, which coincides with the results of a study conducted in India.¹⁷ The reason might be that students perceive their parental aspirations to be stressful, making them want to achieve the maximum, within a limited time period, which often causes stress among them.

Conclusion

From our study it can be concluded that there is a positive relationship between parental involvement and medical student stress at Shifa College of Medicine. In this study it manifested in the form of excessively high parental aspirations from their children to excel in their exams, which causes the student to feel a significant additional burden to the already high stress levels caused by the strenuous activities of a medical institution, leading to adverse effects on the academic, social and personal life of a medical student. This student distress, if not corrected or managed properly and within a proper time frame may lead to negative influences on the professional development of the student and will further have an adverse impact on their mental health.

Recommendations

Our study and its results highlight the need for prompt interventions in this regard due to the negative effects on the lives of medical students, as mentioned previously. Not only should parents be made aware of the aforementioned issue, but they should also be informed on how to alleviate some of the overall stress levels faced by a student. Well trained counselors should also be made available for the students to train them on various techniques for coping and management of stress and anxiety, as according to the student in question.

Limitations

The study was limited to a sample of students in Shifa College of Medicine. This is due to financial and time constraints. Consequently, the results of this study will not be generalized to all medical schools in Islamabad. Only students studying MBBS were considered, therefore, the

results cannot be applied to other fields pertaining to medicine.

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