

## ORIGINAL ARTICLE

**Counselling of Medical Students a Supportive Tool**FAUZIA QURESHI<sup>1</sup>, ZAINUL ABIDEEN<sup>2</sup>, NADIA MAJEED<sup>3</sup>, TAHRIM ANSAR<sup>4</sup>, UZMA WASEEM<sup>5</sup>, SHAMSA<sup>6</sup>.<sup>1</sup>Associate Professor Anatomy Akhtar Saeed Medical & Dental College Lahore<sup>2</sup>Data Scientist, Student in Software Engineering NUST Islamabad,<sup>3</sup>Associate Professor Anatomy Amna Inayat Medical College Sheikhpura,<sup>4</sup>Professor Anatomy Abu Umara Medical & Dental College Lahore,<sup>5</sup>Assistant Professor Anatomy Shalamar Medical College Lahore,<sup>6</sup>Professor Anatomy Sialkot Medical College.Correspondence to Fauzia Qureshi, Email [fauziaimran77@gmail.com](mailto:fauziaimran77@gmail.com) Cell No.03224180531**ABSTRACT****Background:** Medical education is one of the toughest courses worldwide in the education system. Medical students have academic and non-academic problems that can influence their academic performance,**Aim:** To study the effect of counselling and guidance on the academic performance of medical students through students' perceptions.**Study design:** Cross sectional**Method:** The study was conducted on 3<sup>rd</sup> year MBBS students of Azra Naheed Medical College Lahore, medical students were divided into two groups (A&B) on the basis of their academic performance during the year 2021-2022 in professional and module examination. A Google form was developed by the authors of this study which consisted of 13 questions regarding the perception of students about the effect of counselling and guidance on multiple factors affecting their academic performance. The form was posted in two official WhatsApp groups (A&B) of the class. In group A, students with good performance and high achievers were included and in group B average and failed students were included.**Results:** The findings show that the 40 students from group A and 42 students from group B responded to the questionnaire. A higher percentage of students belonging to both groups responded positively regarding the role of faculty counselling and guidance in hectic medical study schedules, preparation of professional exams, time management, social, domestic, attendance issues and overall academic performance. 97.5% of students from group A & 100% of students from group B responded positively to question 12 about Career Counselling of medical students in medical colleges, 97.50% correlation was found in both groups. The result showed that students belonging to good academic performance and students who were average & with low academic performance responded positively to support the role of faculty members.**Practical implication:** Student counselling plays an important role in medical education. This study showed that positive response of medical students towards student counselling and academic guidance. Need of career counselling is also highlighted by students which raises the question of development of student counselling department in every medical institute.**Conclusion:** It has been found that there is an important role of faculty members in solving the academic & non-academic problems of students. In a recent study, students have recognised the supportive role of faculty members in the improvement of their academic performance through their guidance and counselling.**Keywords:** Academic performance, counselling, guidance, faculty members, medical education, student perception**INTRODUCTION**

Learning outcomes of medical students are affected by various academic and non-academic factors. Not only well-trained competent faculty members, adequate infrastructure and a well-established learning system are mandatory for student's success but the guidance and counselling of students play a vital role in helping students to achieve their goals. Some academic problems are short attendance of students in classes, Lack of interest in a subject and poor performance in examinations while non-academic problems include financial, socioeconomic, family background and adjustment issues. But all these problems can be solved by proper guidance & counselling of students. The interest of medical students in studies can be enhanced by using emotional intelligence and motivation<sup>1</sup>.

MBBS students faced problems like language, financial, social, adjustment, psychological and food issues which adversely affect academic performance. Because of emotional instability suicidal tendency is increasing among medical students<sup>2</sup>. Ineffective time management, huge syllabus, competition among students for academic grades, long study hours, continuous evaluations and personal problems are major factors resulting in stress & depression in medical students. Physical, emotional and medical health is badly affected by stress which directly declines the academic performance & life of medical students. Lack of proper guidance and counselling are a predisposing factor of stress & depression in M.B.B.S students<sup>3</sup>.

Medical students of 1<sup>st</sup> and 2<sup>nd</sup> year usually have adjustment and emotional challenges which results in poor performances in professional exam. Research has proved that medical students leave university in 1<sup>st</sup> and 2<sup>nd</sup> year of M.B.B.S<sup>4</sup>. These challenges can be resolved by motivation of students, guiding them about time-management about study hours and personal commitments. Also by counselling them regarding prioritising items and managing study schedule<sup>5</sup>.

Counselling is applied psychology, which aims at bringing out the best attributes of the individual learner. Guidance can be defined as assistance given to the student by a faculty member in order to facilitate success in the learning process and academic performance. Guidance enables the individual to make adjustments in life and acquire the capacity for self-direction and self-guidance<sup>6</sup>. Academic guidance and counselling of students are an important educational tool.

Counselling by faculty members affects the mental, spiritual, moral and social aspects of the personality development of students. It is supposed to inculcate moral values and harmonize their abilities which help in developing the learner's balanced personality and enabling them to achieve goals of life<sup>7</sup>.

**Significance of study:** Recent research showed the significant role of faculty members in counselling and academic guidance of medical students.

**Research Gap:** Medical students are future doctors but no importance is given to counselling and guidance of medical students. As lots of research is required to determine the effects of

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academic guidance and counselling on the performance and personality of medical students.

This study was conducted to study the effect of counselling and guidance on the academic performance of medical students through students' perceptions .

**MATERIAL METHOD**

This cross sectional was conducted on 3<sup>rd</sup> year MBBS students of Azra Naheed Medical College, Lahore. Sample size was 82 medical students. Non probability convenience sampling technique was used.

**Development of instrument:** Electronic questionnaire google form with 13 questions

**Validity and reliability:** Validity and reliability of questionnaire was checked pilot study

**Data collection procedure:** Google form was posted in the two official WhatsApp groups

**Data analysis plan:** Python programming language (Version: 3.10), Pandas and Scikit-learn

Medical students were divided into two groups (A&B) on the basis of their academic performance during the year 2021-2022 in professional and module examinations. A Google form was developed by the authors of this study which consisted of 13 questions regarding the perception of students about the effect of counselling and guidance on multiple factors affecting their academic performance. The form was posted in the two official WhatsApp groups (A & B) of class. In group A, students with good performance and high achievers were included and in group B average and failed students were included. Confidentiality of the data was ensured and anonymity of the participants was maintained at all stages. The study was formally approved by the Institutional review board of Azra Naheed Medical College, Lahore.

For data preprocessing we have used Python programming language (Version: 3.10), Pandas and Scikit-learn. First of all, we have label encoded the values of the categorical variables, yes and no, into 1 and 0 respectively. Then we divided the number of responses having our characteristic of interest (Yes) by the total number of responses for each question and each group independently to get the proportion of 1's. To calculate the correlation percentage between groups A's and B's responses for each question, we subtracted the proportion of 1's of group A from the proportion of 1's of group B and then multiplied the absolute difference by 100%.

The questionnaire was framed by faculty members in which following the questions were asked:

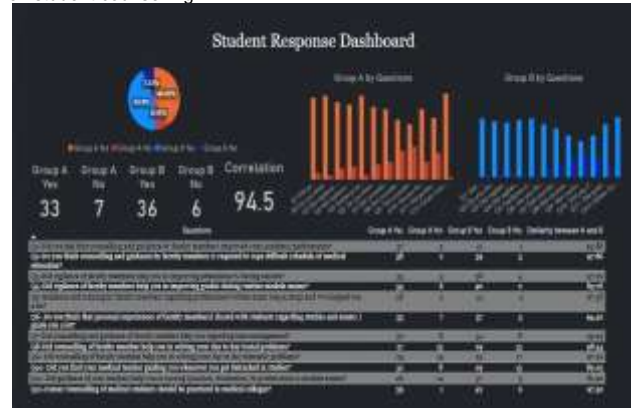
- Q1-Did you feel that counselling and guidance by faculty members improved your academic Performance?
- Q2-Do you think counselling and guidance by faculty members is required to cope difficult schedule of medical education?
- Q3 Did the vigilance of faculty members help you in improving attendance % during session?
- Q4 Did the vigilance of faculty members help you in improving grades during routine module exams?
- Q5-Guidance and training by faculty members regarding professional written exam (seq&mcq) and viva helped you a lot?
- Q6- Do you think that personal experiences of faculty members (shared with students regarding studies and exams) guide you a lot?
- Q7-Did counselling and guidance of faculty members help you regarding time management?
- Q8-Did counselling of faculty members help you in solving your day to day social problems?
- Q9- Did counselling of faculty members help you in solving your day to day domestic problems?
- Q10- Did you find your medical teacher guiding you whenever you get detracted from studies?
- Q11 Did the guidance of your teachers help you in scoring (position, distinction) in professional or module exams?

Q12-Career Counselling of medical students should be practised in medical colleges?

Q13- Give your comments about your perception regarding student counselling as a supportive tool.

**RESULTS**

Figure1: Student's responses of both groups (A&B) about the questionnaire on student counselling

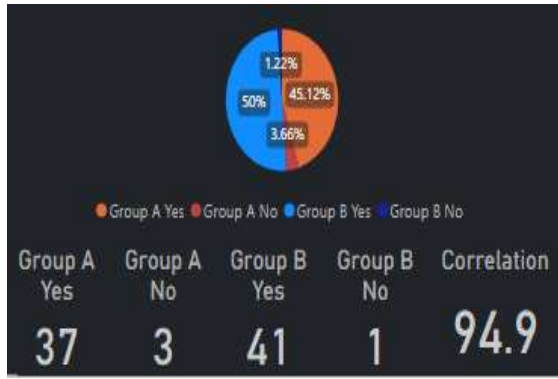


The graph shown in Figure 1 is about the response of 3<sup>rd</sup> year MBBS students to questions regarding the role of guidance and counselling in their academic performance. We have given two options yes /no for 12 questions and the 13th question was open-ended, students had to give comments about their experience. 40 students in group A and 42 students in group B responded to the questionnaire, 92.5% of students from group A & 97.6% of students from group B responded positively regarding question 1 in which perception was asked regarding counselling and guidance by faculty members in the improvement of academic performance. As shown in Figure 2, A 94.88% correlation was found in both groups. 95% of students from group A & 92.8% of students from group B responded positively regarding Question 2 about the role of faculty members in managing difficult schedule of medical education. A 97.86% correlation was found in both groups as shown in Figure 2.

87.5% of students from group A and 90.4% of students from group B responded positively regarding Question 3 regarding the vigilance of faculty members in improving attendance % during session. A 97.02% correlation was found in both groups as shown in Figure 3. It was found that 85% students from group A and 95.2% of students from group B responded positively to Question 4 regarding the vigilance of faculty members in improving grades during routine module exams. Group A 89.76% correlation was found in both groups as shown in Figure 3.

Figure 2: Question 1&2 with respective responses and correlation between Group A&B

Question 1



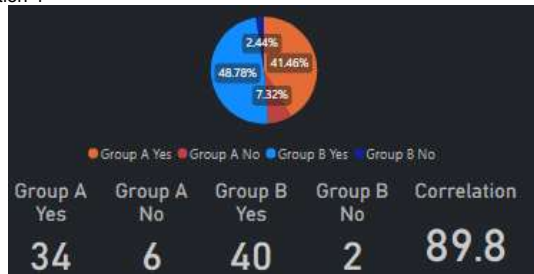
Question 2



Figure3: Question 3&4 with respective responses and correlation between Group A&B  
Question 3



Question 4



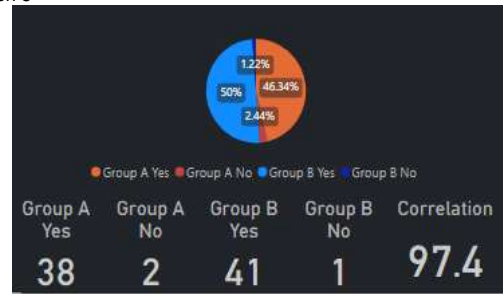
Ninety five percent of students from group A and 97.6% of students from group B responded positively to Question 5 regarding guidance and training by faculty members in preparation of professional written exam (seq & mcq) and viva. 97.38 % correlation was found in both groups as shown in Figure 4. 82.5% of students from group A and 88% of students from group B responded positively to Question 6 about the guidance of faculty members by sharing their personal experiences with students. 94.40 % correlation was found in both groups as shown in Figure 4.

Eighty percent of students from group A and 80% of students from group B responded positively to Question 7 regarding counselling and guidance of faculty members regarding time management. A 99.05 % correlation was found in both groups as shown in Figure 5. It was found 67.5% students from group A & 69% of students from group B responded positively to Question 8 regarding the counselling of faculty members in solving your day to

day social problems. A 98.45% correlation was found (as shown in Figure 5) in both groups. 62.5% of students from group A & 59.5% of students from group B responded positively to Question 9 about the role of counselling of faculty members in solving day to day domestic problems of students. A 97.02% correlation was found in both groups (Figure 5). 80% of students from group A & 69% of students from group B responded positively to Question 10 about role of medical teachers in guiding students whenever they get detracted in their studies. 89.05% correlation was found in both groups (Figure 6). 70% of students from group A & 88% of students from group B responded positively to Question 11 regarding guidance of teachers in scoring (position, distinction) in professional or module exams. 81.90% correlation was found in both groups as shown in Figure 6.

Ninety seven and half percent (97.5%) of students from group A & 100 % of students from group B responded positively to question 12 about the career counselling of medical students that should be practised in medical colleges. A 97.50% correlation was found in both groups as shown in Figure 6. Regarding comments of students in the last open-ended question, the majority students of both groups have admired the role of faculty members in the enhancement of academic and professional skills also in personality development. Administrators of medical institutes should develop a student counselling department for the welfare of medical students.

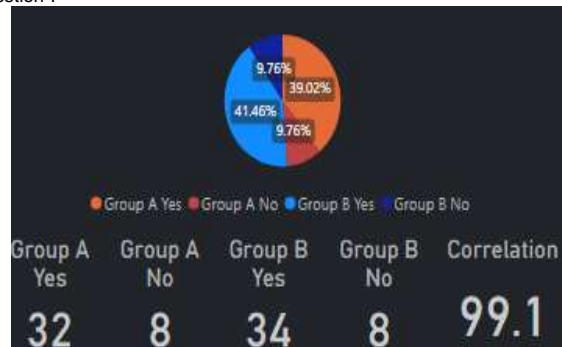
Figure 4: Question 5&6 with respective responses and correlation between Group A&B  
Question 5



Question 6



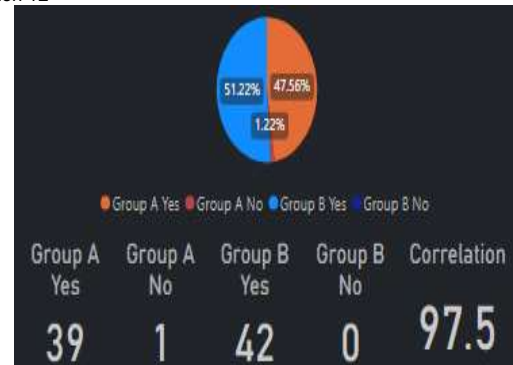
Figure 5: Question 7,8 & 9 with respective responses and correlation between Group A&B  
Question 7



Question 8



Question 12



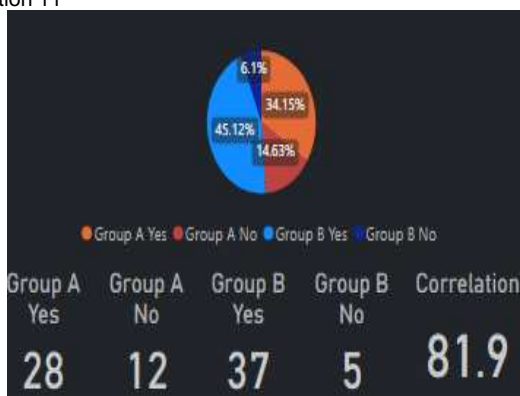
Question 9



Figure 6: Question 10, 11 & 12 with respective responses and correlation between Group A&B



Question 11



## DISCUSSION

Globally medical education is one of the CORE and toughest course in the education system. Medical institutes have been recognized as the stressful environment during the tenure of an undergraduate medical student. The learning ability of students is hampered by socioeconomic, emotional, domestic and academic issues. To enhance the medical knowledge and professional skills of medical graduates so many efforts have been taken by administrations of medical colleges & universities but hardly any step is taken for counselling and guidance of real stakeholders (medical students) in medical institutes.

The present study was an attempt to analyze the role of faculty members in the guidance and counselling of medical students regarding multiple factors affecting their academic performance.

Mentoring & communication skills in faculty members of medical institutes are valuable assets that help shape the professionalism of upcoming doctors. Faculty members are role models who play a vital role in the personal and professional development of medical students over time. Although faculty members are involved in imparting academic knowledge and skills to medical students regarding the relevant subject, knowledge about the "hidden curriculum" of professionalism, ethics, moral values and the art of medicine are also taught by them which is not in textbooks. Mentors also provide emotional support and motivation<sup>8</sup>.

Umbach et al compared national data to investigate the relationship between faculty activities and student engagement. Their result showed that high level of engagement and active learning of students at medical schools where faculty members were involved in high cognitive interactive sessions. Students have engaged academically and value enriching educational experiences. It is reported that faculty members play a key role in student active learning because faculty personalities and attitudes affect students profoundly<sup>9</sup>. A present study also proved the supportive role of faculty members in the improvement of academic performance of students as a 94.25% correlation between both groups was seen regarding Question 1.

Another study was conducted in India by Ovhal AG et al, to study the relationship and the effect of the counselling method on the academic performance of first year M.B.B.S. students. It is reported that 97% of students claimed that counselling and guidance helped to increase their confidence level. 98% of students' opinion was that counselling is very much helpful for forthcoming batches. 95% of students agreed that the role of faculty members as counsellors is very crucial for them<sup>2</sup>. A present study also showed 89.76% correlation between both groups about question 4 regarding the vigilance of faculty members in improving grades during routine module exams. 89.05% correlation to question 10 about the role of medical teachers in guiding students whenever they get detracked in studies. 81.90% correction of both groups to question 11 regarding guidance of

teachers in scoring (position, distinction) in professional or module exams.

Renuka Devi et al conducted research to explore the relationship and the effect of counselling guidance on the academic performance of college students. Individual counselling has a positive impact on academic performance. counselling service in colleges is effective in easing and facilitating the students' personal difficulties. They concluded that constructive support by faculty members through individual counselling had a dramatic effect on the personality and academics of students and the number of counselling sessions directly correlated with improvement in academic performance<sup>10</sup>.

Recent research also showed that 98.45%, and 97.02% correlation between both groups regarding the perception of students with the role of faculty members in solving social, and domestic problems of students through individual counselling. Another study was conducted at a medical school in South Africa to determine undergraduate medical students' perceptions of factors affecting their academic performance. Research showed that first and second year medical students reported more academic challenges (41%.47%) respectively<sup>4</sup>.

Another research showed 43.89% prevalence of anxiety and depression among medical students at Nishtar Medical College, Multan. Prevalence of depression among female students was found more as compared to male students, when prevalence depression & anxiety was analyzed among students of first, second, third, fourth and final years, 45.86%, 52.58%, 47.14%, 28.75% and 45.10% was found respectively<sup>11</sup>. Studies showed that 58% of graduates experienced stress-related problems which significantly affected their academic performance and their personality. The prevalence of mental health needs among graduate students is high. Graduate mental health issues are an important and understudied area in majority of institutes. There should be coordination between medical and mental health units of universities<sup>12</sup>.

Anne Marie Delaney conducted a study to assess the impact of interaction with faculty on student outcomes. A significant impact of counselling and guidance on student performance with satisfactory interaction between students and faculties<sup>13</sup>. Language problems, vast and difficult subjects with poor understanding of theory and practical and time management are grey areas of medical education to be addressed. A present study also showed that 95%, 92.8% (group A&B) students acknowledged the importance of academic counselling by the faculty members in coping difficult schedule of medical education, 80% (both groups) in time management, 95%, 97.6% (group A&B) in solving seqs, mcqs and giving viva in examination. Medical education is a highly competitive field, the majority of students getting admission in medical colleges, don't make their career preferences because of the lack of career counselling in medical colleges. A recent study showed that 100% of students agreed with the importance of career counselling in medical college. Medical students make a decision regarding specialization depending on various factors such as role models, job opportunities, financial rewards, interest in clinical subjects and teaching basic medical sciences but a proper career counselling department is need of the day<sup>14</sup>.

The faculty's role in facilitating the academic and professional development of students in a medical college is proved by research conducted in 2013. Greater than 50% of faculty & 50% of students support the need of academic counselling and professional development of students<sup>15</sup>. In recent study, students agreed with the supportive role of faculty members in the academic and professional development of students. 97.5% of students from group A & 100% of students from group B responded positively to question 12 about whether career counselling of medical students should be practised in medical colleges. A 97.50% correlation was found in both groups. Results showed that students belonging to good academic performance and students who were average & with low academic

In a study conducted by Sayer M et al discussed different factors responsible for academic failure medical students. Most common were non academic such as socioeconomical, domestic and emotional problems. Financial costs of academic failure is extremely high among medical students it was reported that with faculty support, academic guidance and motivation helped students to overcome these problems & academic difficulties<sup>16</sup>.

Recent research also showed that students who were poor performer in professional exams previously improved their academic performance after counselling and academic guidance by faculty members. Students comments:

"It's really important & crucial part of education, it should be implemented more".

"It really helps students to improve in term of grades and perception about life".

"Yes it is too much important especially for students having no medical background their maximum

time is wasted in understanding how to utilize full potential while performing in medical school."

Career guidance is important for medical students. Support and guidance of students are always required. Academic problems are just the tip of the iceberg; developmental student support requires an organizational culture in which student support is considered the responsibility of the institution<sup>17</sup>.

## CONCLUSION

It has been found that there is an important role of faculty members in solving the academic & non-academic problems of students. Students have recognised the supportive role of faculty members in the improvement of their academic performance through their guidance and counselling. Still, lots of work is required for student counselling and support systems in medical institutes.

**Ethical approval:** Recent research was formally approved by the Ethical Review Board of Azra Naheed Medical College, Lahore.

**Conflict of interest:** Nil

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