

## Factors Affecting Performance of Medical Students – A Cross Sectional Study

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### ABSTRACT

**Aim:** To define and highlight different factors that contributes to the academic performances of the medical students and leading them to failure and success throughout their course in the medical colleges.

**Study Design:** Questionnaire Based Study.

**Place and Time of Study:** Department of Surgery and Medical Education, Khawaja Muhammad Safdar Medical College, Sialkot from 1<sup>st</sup> June 2017 to 15<sup>th</sup> June, 2018.

**Methods:** All subjects of the study belonged to public and private sector medical colleges of Sialkot. Subjects were divided into two groups. Group 1 included those students who have experienced failures once or more in any subject in their past examinations. Group 2 included the students who never had any failure in their medical career so far. Questionnaire devised was handed over to the subjects with the advice to fill it completely within 3 months. Incomplete questionnaires were completed by interviewing the subjects. Unclear questionnaires were excluded. Some queries were also made clear through phone calls.

**Results:** Students participating in the study were 350. out of which students who failed in any subject once or more were 57 & students who didn't have any failures were 293, total medical teachers were 60, faculty from pre-clinical subjects was having 36 members, questionnaires were distributed in 410 subjects, returned questionnaires were 343 and incomplete questionnaires were 28. Complete questionnaires 315 and interviews done were 30. In summarizing the Failure group indicated students factors as 21 (36.84%), teachers factors 17 (29.82%) and institutional environment to be 19 (33.33%) as factors leading to students performance. On the Group – Success, indicated student's factors as 94 (32.08%), teachers factors 149 (50.85%) and institutional environment to be 50 (17.06%) as factors leading to students performance.

**Conclusion:** Medical education being a difficult aim has varied factors which lead to failure of students. Most of the factors may be leveled on capabilities and interest of the students themselves. The environment of the institute and teaching faculty has only complementary role which cannot drastically affect the results.

**Keywords:** Medical school, Failure, Students, Teachers, Teaching Methodology

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### INTRODUCTION

Life in a medical college is full of educational and emotional turmoil where students are subjected to a vast number of educational, academic and scholastic challenges. Medicine is a high demanding field which needs consistency and perseverance of a student throughout his training years. Even students in a public sector medical college, often termed as the cream of nation, find it quite tiresome and difficult to pass all the examinations and do all assignments. They have to face and master such a great volume of information in quite a small time that they have to give their full energy and dedication to this stuff. A number of students who do good at matriculation and Intermediate level fail to enhance their skills to cope with the increasing difficulty level in these preclinical years. It can lead to stress, eventually resulting in alcoholism or drug addiction in majority of students. It results massively in repeated failures<sup>1</sup>.

Failure in a medical college is defined as not getting 50% marks in any academic examination. Every year, a lot

of students fail their professional examinations in first attempt and some of them even don't get to promote to next year even after re-appearing in supplementary examinations. This failure is not an instinctive act of bad luck but a result of chronic misguidance, mismanagement, carelessness and lack of motivation from a student<sup>2</sup>. This issue always must be addressed with open heart keeping in mind different aspects of life a medical student.

Majority of medical students reside in a hostel often located in the vicinity of the college. They are far from their home towns having limited financial resources. They also face some extent of cultural, regional and language barriers. They have to manage their affairs by themselves. They often fall to ill health and bad habits and cannot deliver the maximum output<sup>3</sup>. A category of students fails to foresee the "Monster of Examinations" they will face at the end of their academic year. They find extracurricular activities and sports more interesting than their books and notes. They also lose the spark of success they had once in their undergraduate life<sup>4</sup>. Even in hardworking students, failure is not an unknown thing. Many students can't write properly on examination paper what they know. Some fall

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to anxiety in viva exam when confronted by a panel of highly qualified professors in a tight and strict environment<sup>5</sup>.

The burden of blame should not be thrown to students alone. The importance of a motivational environment with a competent teaching faculty can't be denied in any case. The environment is created by the college administration along with teachers where students don't feel ashamed to question and where they are not distracted by unwanted stuff<sup>6,7</sup>. Teaching faculty is also responsible for improvising their teaching methodologies and indulging students in more advanced ways of learning. Students must be acknowledged with newer clinical advancements through tutorial classes and Internet. A regular feedback is usually not taken from the students about the ways they are learning which leads to the educational negligence<sup>8,9,10</sup>.

The failure rate in a medical college with its causes must be addressed and assessed quantitatively. Since no study of this kind has been done before in setup of Khawaja Muhammad Safdar Medical College, Sialkot, so we are conducting this research.

### SUBJECTS AND METHODS

All subjects of the study belonged to Khawaja Muhammad Safdar Medical College, Sialkot. Subjects were divided into two groups. Group 1 included medical students from 2<sup>nd</sup> year to Final year currently enrolled in Khawaja Muhammad Safdar Medical College, Sialkot. All students, irrespective of their previous academic results, were made part of the study. Group 2 included teaching faculty of all departments, Examination staff and faculty of Department of Medical Education. Questionnaire devised was handed over to the subjects with the advice to fill it completely within 3 months. Data collected was entered and Analysis made using SPSS v 22.

### RESULTS

General variables in the study are depicted in Table I. Table II shows feedbacks expressed in terms of percentages

Table- I: Study to summarize

Students participating in study	350
Students who failed in any subject once or more	57
Students having no failures	293
Total medical teachers	60
Faculty from Pre clinical subjects	24
Faculty from clinical subjects	36
Questionnaires distributed	410
No of Questionnaires Returned	343
No of Incomplete Questionnaires	28
No of Complete Questionnaires	315
No of Interviews/calls Done	30

Table II: Findings of the Questionnaires

Factors expressed as Negative	Total subjects- 350(100%)	
	Group I- Students with failures- 57(100%)	Group II Successful students- 293(100%)
Students Incompetence	15(26.31%)	201(68.60%)
Low attendance of students	19(33.33%)	176(60.06%)
Poor assessment strategies	45(78.94%)	34(11.60%)
False perception of Medical Field	30(52.63%)	26(8.87%)
Bad Habits- Cigarette smoking, Alcoholism, Conviction	6(10.52%)	162(55.29%)
Poor Time Management and lack of self-discipline	10(17.54%)	156(53.24%)
Non-professional Teaching staff	35(61.40%)	35(11.94%)
Low attendance of teachers	50(87.71%)	32(10.92%)
Failure of Modernized Teaching adaptations	34(59.64%)	34(11.60%)
No tutorial and interactive sessions	34(59.64%)	67(22.86%)
Less teacher student interaction	32(56.14%)	89(30.37%)
Sub-Standard Skill Labs	45(78.94%)	110(37.54%)
Unavailability of Dissection Cadavers and other practical equipment	32(56.14%)	209(71.33%)
Over Crowded Classes	12(21.05%)	123(41.97%)
Poor Infra structure	23(40.35%)	45(15.35%)
Energy burnout due to lengthy Syllabus	57(100%)	23(7.84%)
Financial Crisis- unable to provide tuition fees	7(12.28%)	12(4.09%)
Changes in Life Circumstances	8(14.03%)	20(6.82%)

Table III: Final Remarks of the Groups

	Failure Group (57)	Success Group (293)
Students Factors	21 (36.84%)	94 (32.08%)
Teachers Factors	17 (29.82%)	149 (50.85%)
Environment of Institute	19 (33.33%)	50 (17.06%)

### DISCUSSION

Our study showed that 40.35% of Group I & 60.78% of Group II students gave final remarks about students factors, while these were 50.73% according to the study by Hamond et al<sup>11</sup>.

Our data presented that teachers factors were present as final remarks in 71.92% of Group I & 22.86% of Group II students, while the study of Fuller et al<sup>12</sup> showed those to be 33.56%. We had the figures of 29.82% & 17.06% students in Group I & group II respectively, who gave final remarks for environment of institutes, while this figure was 23.06% in the study by Konstantopoulos et al<sup>13</sup>.

The students' incompetence was a negative factor according to 26.31% students from Group I & 68.60% students of group II, low attendance was a negative factor by 33.33% of Group I students & 60.06% of Group II students, poor assessment strategies were responsible according to 78.94% of Group I & 11.60% of Group II students, false perception of medical field was a factor according to 52.63% of group I & 08.87% of Group II students, Bad habits were the reason by 10.52% of Group I & 55.29% of Group II students, poor time management & lack of self discipline were responsible factors by 17.54% of Group I & 53.24% of Group II students, there was non-professional teaching staff according to 61.40% of Group I & 11.94 % of Group II students, failure of modernized teaching adaptations lead to decreased performance by 59.64% of group I & 11.60% of group II members, 59.64% students of Group I & 22.86% students of Group II had the views that no tutorials or interactive sessions were held, less teacher student interaction was the base by 56.14 % of Group I & 30.37% of Group II people, substandard skill labs were the reason in the opinion of 78.94% students in Group I & 37.54% in Group II, unavailability of dissection cadavers and other practical equipment was the cause according to 56.14% Group I & 71.33% Group II persons, 21,05% of Group I 41.97% of Group II students considered over crowded classes as a negative factor, poor infra structure was another negative thing according to 40.35% of Group I & 15.35% of Group II members, in addition, energy burnout due to lengthy syllabus also contributed negatively by 100% of group I & 07.84% of Group II students, financial crisis-unable to provide tuition fees was responsible according to 12.28% of group I & 04.09% of Group II students and changes in life circumstances were negative factors by 14.03 % Group I & 06.82% Group II students.

## CONCLUSION

Medical education being a difficult aim, has varied factors which lead to failure of students. Most of the factors may be leveled on capabilities and interest of the students themselves. The environment of the institute and teaching faculty has only complementary role which cannot drastically effect the results.

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