

Relationship between Past and Present Academic Performance among Undergraduate Medical Students of Bangladesh

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Abstract

Background: Education is one of the most essential factors in producing a human resource & the academic performance becomes important since it is commonly used as a reflection of education. To find out the relationship between past and present academic performance among medical students of Bangladesh.

Methodology: This cross-sectional study was conducted to assess the relationship between past and present academic performances of the medical students of Bangladesh. A total of 436 student respondents participated in this study from eight purposively selected of Bangladesh those are located at Dhaka and outside Dhaka) from January to December 2022 using a pretested semi-structured self-administered questionnaire.

Results: This study find that out of 436 medical students' majority i. e. 416 (95.4%) students got GPA score 5 and very few i.e. 20 (4.5%) got GPA score <5 in the Secondary School Certificate examination. In Higher School Certificate examination majority i.e. 386 (88.5%) students got GPA score 5 and 50 (11.5%) students got GPA score <5. This study also find that out of 130 responses about the result of first MBBS Professional examination, most of them (92.3%) passed regularly and 7.6% passed irregularly. Out of 83 responses about the result of second MBBS Professional examination, most of them (96.3%) passed regularly and 3.6% passed irregularly. Out of 30 responses about the result of third MBBS Professional examination 100% passed regularly and no irregularly passed was found. In the fourth MBBS Professional examination 50% passed regularly. There was an inverse relationship between the combined scores of Secondary School Certificate examination and Higher School Certificate examination with the result of professional examinations.

Conclusion: Academic performance at the secondary education or pre-university college level is generally considered the strongest indicator of academic merit in tertiary education.

Keywords: Past Academic performance, Present Academic performance.

Introduction

The role of education plays and contributes to the intellectual growth and development of a society which becomes a common concern in both developed and developing countries¹. The objective of education is to help each individual in society attain their potential and enhance their capabilities. It paves the way for the holistic development of the individual, society, and nation².

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Moreover, it helps individuals participate in society's basic functions and acquire an essential educational foundation for their development into productive versatile citizens³. One of the indicators of students' success is academic performance. The academic performance is defined by students' reporting of past semester CGPA/GPA and their expected GPA for the current semester. The grade point average or GPA is now used by most of the tertiary institutions as a convenient summary measure of the academic performance of their students. The GPA is a better measurement because it provides a greater insight into the relative level of performance of individuals and different group of students⁴.

Academic performance is the measurement of student achievement across various academic subjects. Teachers and education officials typically measure achievement using classroom performance, graduation rates and results from standardized tests⁵. A medical student's academic performance attracts the attention of all those involved in medical education. Many medical education stakeholders are concerned about students' performances as it reflects their various areas of interest.

According to Alfayez et al (1990)⁶, those stakeholders are not only faculty members but also medical school selection committees, curriculum planners, and instructional designers.

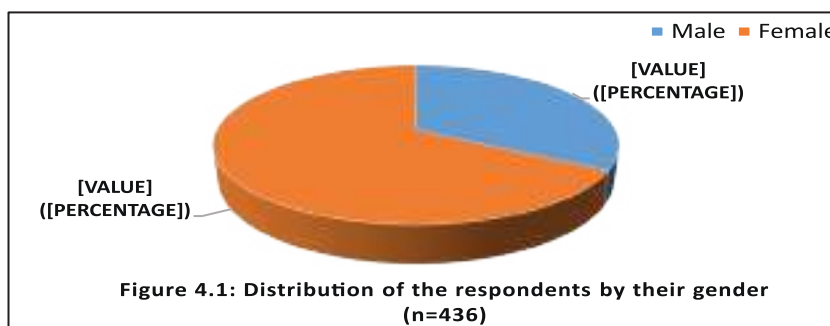
Many studies have stated that the most important predictor of performance in medical school is both prior academic ability and English language^{6,7}. In another study, socioeconomic status is one of the factors that affect learning; the author states that students learn better if they are from an above-average or average-income family⁸.

The number of determinants or factors other than university entrance results may significantly affect the academic performance of students. The factors might be the type and location of secondary school performance, type of admission, quality of teaching, study habit, economic and educational background of parents, references and textbook availability, student’s placement by their first choice, etc.⁹.

Methodology:

This cross-sectional descriptive study was conducted to assess the relationship between past and present academic performances of the medical students of Bangladesh. A total of 436 student respondents participated in this study from eight purposively selected medical colleges of Bangladesh of the colleges four had public and four had private ownership; of these institutes three located at Dhaka and five located outside Dhaka. The study was conducted from January 2022 to December 2022 using a pretested semi-structured self-administered questionnaire. Informed written consent was taken before taking administering the questionnaires. After collection of the questionnaires were checked for any inconsistency of data and corrected manually if possible. Then the data were entered into SPSS version 19. A P-value of < 0.05 consider as statistically significant. The data were presented by figures and tables with necessary descriptions and statistical analysis for easy understanding and comparisons.

Results



Among the 436 medical students 144 (33%) were males and 292 (67%) were females (Figure1).

Table 1: Distribution of the medical students by their past academic performances

Past academic examinations	Frequencies and percentages of past academic results		
	GPA =5	GPA<5	Total
Secondary School Certificate (SSC)	416(95.4%)	20 (4.5%)	436(100%)
Higher Secondary School Certificate (HSC)	386(88.5%)	50(11.5%)	436(100%)

Table 1 shows the distribution of the 436 medical students by their past academic performance. In the SSC examination majority i. e. 416 (95.4%) students got GPA score 5 and very few got GPA score <5. In HSC examination 386 (88.5%) students got GPA score 5 and 50 (11.5%) students got GPA score <5.

Table 2: Distribution of the medical students by their academic performance in professional examinations

Present (professional examinations) academic examinations	Frequencies and percentages of present academic results		
	Passed regularly	Passed irregularly	Total response
First MBBS Professional examination	120 (92.3%)	10 (7.6%)	130(100%)
Second MBBS Professional examination	80 (96.3%)	3(3.6%)	83(100%)
Third MBBS Professional examination	30(100%)	0 (0%)	30 (100%)
Fourth MBBS Professional examination	1(50%)	1 (50%)	2 (100%)

Table 2 shows the distribution of the 436 medical students by their present academic performance. Out of 130 responses about the result of first MBBS Professional examination, most of them (92.3%) passed regularly and 7.6% passed irregularly. Out of 83 responses about the result of second MBBS Professional examination, most of them (96.3%) passed regularly and 3.6% passed irregularly. Out of 30 responses about the result of third MBBS Professional examination 100% passed regularly and no irregularly of passing was found. In the fourth MBBS Professional examination 50% passed regularly.

Table 3: Distribution of the medical students by their past and present academic performances (n=131)

Past academic result	Present academic result in professional examinations		Statistical inference
	Regular Y	Irregular Z	
CGPA [®] <5 (n=44)	43(97.7%)	1(2.3%)	Pearson Chi -Square value , $\chi^2 = 4.339, df = 1$
CGPA [®] =5 (n=87)	75 (86.2%)	12 (13.8%)	P value (one sided) = .0185

[®] = CGPA= 40% of SSC score + 60% of HSC score, Y = Was never irregular, Z = Was at least once or more times irregular. Table 3 shows the distribution of the medical students by their present and past academic performance based on CGPA (40% of SSC score + 60% of HSC score) and regularity in the MBBS professional examinations. It was found that the students who had CGPA less than 5 they were more regular (97.7%) in passing the professional examinations than the students who had CGPA 5 (86.2%) and this finding was statistically significant.

Discussion

Study findings (Fig1) showed that among all (436) respondents, males were 144 (33%) and females were 292 (67%). In a report, similar findings were found that female students performed much better than male students on average in both admission tests and previous academic results¹⁰.

The results of this research demonstrate (Table 1) that in the SSC examination majority i. e. 416 (95.4%) students got GPA score 5 and very few got GPA score <5. On other hand in HSC examination 386 (88.5%) students got GPA score 5 and 50 (11.5%) students got GPA score <5. The result of HSC examination was relatively poor than the SSC examination result. This may be due to the curriculum of HSC is drastically different and difficult from SSC¹¹.

It was found that (Table 2) out of the 436 medical students only 130 (29.8%) have mentioned the results of their first MBBS Professional examinations; reasons behind that the students of first phases either did not appear the examination or did not yet get the result of the examination, but the student of other phase either could not remember or nor willing to mention the results. Same things might be happened for other phases also.

This study showed that among 131 students, who had CGPA (40% of SSC score + 60% of HSC score) less than 5 were more regular (97.7%) in passing the professional examinations than the students who had CGPA 5 (86.2%). and this finding was statistically significant. This finding was quite opposite from the past academic performance with present academic performance. Most probably, this was due to the student with lower score might be more sincere for professional examinations in this study. This finding contradicts with Leinster¹² study result, who concluded 'A' levels were the best predictor of future performance at medical schools and it account for 65% of the performances. From a systemic review¹³ concluded that there is moderate positive correlation between past academic performance and academic performance in the medical courses but it limits admission of socially disadvantaged groups.

Conclusion

This study found that very few of the students pass irregularly in the professional examinations and most of them had high past academic grades. Finally, it was found that female students performed slightly better than male students in the professional examinations. Other factors like past academic result had negative significant relation with the professional examinations.

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