

Study Habits of Undergraduate Medical Students in Bangladesh

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Abstract

The study habits of students are the most important factors that influence the performance of students. Poor study habits are considered one of the main causes of students' academic failure and can have an important impact on their education and their occupational prospect. Currently, no time bound and elaborative research is found to identify the study habits of undergraduate medical students in Bangladesh. This descriptive-type of cross-sectional study was conducted in different medical colleges with the objective to find out the study habits of undergraduate medical students of Bangladesh. It also aimed to find out if there is any difference in study habits between the students with high, average and below-average grade achievers in professional examinations. Data were collected from 586 conveniently selected students from 10 government and 9 private medical colleges of Bangladesh within the period of one year. A pretested semi-structured, self-administered questionnaire was used for data collection. Study habits were assessed in seven domains namely textbook reading, note-taking, memorizing lessons, paying concentration, exam /test preparation, time management, and classroom-related activities. With regards to study habits, it was revealed that undergraduate medical students have an average study habit score in textbook reading (3.54 ± 1.14), note taking (3.33 ± 1.17), memorizing lessons (3.35 ± 1.17), preparation for the test (3.53 ± 1.18), time management (3.40 ± 1.18) and classroom related activities (3.22 ± 1.2) domains. There is a significant difference in study habit score of high grades and below-average grade achievers in professional examinations. This average score of study habits was below our expectations. This study recommended that teachers should make an effort to develop or improve the study habits of medical students by acquainting them with good and poor/bad study habits. So that students can identify their poor study habits and can take the appropriate remedial measure. Teachers can guide weak students to develop effective study habits so that students' learning can be enhanced.

Keywords: Study habits, Domain of study habits, Medical students

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Introduction:

"Study effectively" should be a student's motto. Study habits are defined by Business Dictionary.com as "the actions used when preparing for tests or learning academic information." Study habits are defined as a well-articulated and purposeful study plan that has become a standard among students for learning academic subjects and passing exams.¹

Study habits are made up of two words: study and habit. 'Habit' is defined as a

settled or regular habit or practice, especially one that is difficult to break, and 'Study' is defined as devoting time and effort to learning an academic subject.¹ The basic goal of the study is to gain knowledge and achieve success in any academic endeavor. On the contrary, Thus, 'Study habits' are the behaviors and activities used for learning activities. These are learning techniques and behaviors that enable students to work individually and which differ from individual to individual.²

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Students study habits are extremely significant in their lives. A student's success or failure is determined by how he/she organizes his/her study habits. Studying is a form of art that necessitates practice. Some students study more, but they fall short of their academic goals. Others, on the other hand, study less yet achieve more. Each student's ability, insight, and effort will all play a role in his or her success. There is no doubt that well-planned and accomplished study habits aid a student in achieving personal achievement and rewards.³

There are two types of study habits: good study habits and bad or inefficient study habits. Positive or productive study habits that have the potential to improve students' academic performance or appear to deliver good results are referred to as good study habits.⁴ After being developed the good study habit and applied throughout the academic year, help students to succeed in their academic performance. When a student understands which study methods are most successful for them, good study habits emerge. Attending classes regularly, taking orderly notes during lectures, concentrating on the study, and studying to comprehend rather than merely passing the course are all examples of good study habits that pave the way for academic success.^{1,5} Being organized, taking and revising notes, reading a textbook, listening and actively engaging in class, studying a little every day, efficiently employing group study, avoiding distractions when studying, and avoiding procrastination are all good study habits.

On the other hand, bad study habits are unfavorable, unpleasant, and ineffective study habits. When created and used by students, they tend to hinder the users' academic development and performance. Procrastination, truancy, cramming, multitasking, skipping class, using social

media while studying, and being disorganized all are bad study habits. Students suffer greatly as a result of this at varying stages along their educational route.

The development of a good study habits is critical to a student's academic success.^{1,2,4,6,7} Academic accomplishment is very important in determining a students' capability and potential in today's society. It is critical to his academic achievement as well as his future professional prospects. It is one of the criteria used to assess a student's overall potential and achievement levels. Students' self-confidence, buoyancy, capacity, and amour propre all improve as a result of good study habits.⁸

The goal of this study was to identify various "study habits" among undergraduate medical students in Bangladesh so that the findings might be used to help students with poor study habits.

Materials and Methods:

This descriptive type of cross-sectional study was carried out from January 2021 to December 2021, among 586 students of 10 government and 9 private medical colleges of Bangladesh. A convenience sampling technique was adopted for selecting the respondents among the presenting student who were willing to participate in this study. Data were collected by a pretested self-administered questionnaire which was developed through a review of the literature and modified according to the present country's context.⁹⁻¹⁴

According to the objective, collected data were processed and analyzed using SPSS software (version 26), and interpretations were made accordingly. A five-point scoring scale was used to measure the responses of the respondents to each item. A score was given to each scale as: always = 5, most of

the time = 4, sometimes = 3, rarely = 2, never =

1. For numerical variables, the data were expressed as mean and standard deviation, while categorical variables were expressed as frequency and percentage. Reverse scoring was done for negative statements. The following calculation was done to divide the mean score of each domain of study habit into three different levels, namely poor, average, and good study habits:

$$\text{Class interval} = \frac{(\text{Maximum} - \text{Minimum}) \text{cale}}{\text{Level}}$$

$$\frac{5-1}{3} = 1.33$$

Poor/low level study Habit Score = 1 to 2.33
Average/medium level study habits Score = 2.34 to 3.67
Good/high level study habits score = 3.68 to 5.00

The academic performance of the students was divided into high-grade, average-grade, and below-average grade achievers depending on their results in previous 1st, 2nd, 3rd professional examinations.

High-grade achievers: Students who pass all the exams regularly.

Average-grade achievers: Students who failed only one professional examination or only in one subject.

Below average grade achiever: Students who failed more than one subject or two/three professional examinations.

Results:

Out of 586 students who participated in the study 397(67%) were female and 189(33%) were males. Students' academic performance shows that 84% of students are high achievers and it shows that the failure rate in professional examinations is 16%(9.2%+6.8%) which is quite high. Female students have significantly better

academic results than their counterparts. It also shows that the percentage of high achievers is higher in female students than in male students and that the failure rate is higher in male students. (Table-1).

The level of students' scores in all 7 domains of study habits (textbook reading 5 questions, note-taking 4 questions, memorizing lessons 7 questions, concentration 5 questions, examination preparation 7 questions, time management 4 questions, class-related activity 5 questions) was average except for 'paying concentration' domain which scored high level (Table-2).

This study also revealed that the mean score of high-grade achievers is not different from the mean score of average-grade achievers ($P > 0.05$), but high-grade achievers have significantly more scores ($p < 0.05$) in study habits than below-average-grade achievers (Table-3).

This study also revealed that female students secured better scores than males in textbook reading, memorization, exam preparation, and note-taking domains. Male students performed better than females in the domain of paying concentration (Table-4).

There is a significant difference in note-taking ($p < 0.00001$), memorization lessons ($p < 0.00001$), and paying concentration ($p < 0.0003$) domains between high, average, and below-average achievers where high-grade achievers secured better scores (Table-5). This research also revealed that students of non-government medical colleges have better study habits scores (Table-6).

Table-1: Distribution of students according to the level of their academic performance and Genders (n= 586)

Statements	High-grade achiever f (%)	Average-grade achiever f (%)	Below average grade achiever f (%)	Statistical Inference
Male (n=189)	144(76.19)	24(12.70)	21(11.11)	$\chi^2 = 13.18$ df = 2 p = 0.0013
Female (n=397)	348(87.66)	30(7.56)	19(4.78)	
Total(n=586)	492(84%)	54 (9.2%)	40(6.8%)	

P value <0.05 is considered a significant

Table-2: Score obtained by medical students in different domains of study habits n=586

The domain of Study habit	Mean	S.D
Textbook reading	3.54	1.14
Notes taking	3.33	1.17
Memorization lessons	3.35	1.17
Paying Concentration	3.69	1.07
Test preparation	3.53	1.18
Time management	3.40	1.18
Classroom activities	3.22	1.20

Table 3 Comparison of Study Habits score among High grade, Average grade, below average grade achievers n=586

Academic Performance	Mean ±SD	Variance	df	T Statistics	t-critical value (One tail)	p-value
High grade	3.46±1.16	0.231				
(n=492)			54	1.370	1.67	0.1679
Average grade	3.30±1.15	0.264	4			
(n=54)						
High grade (n=492)	3.46±1.16	0.231				
Below average grade (n=40)	3.10±1.18	0.337	0	2.821	1.67	0.0236
Average grade (n=54)	3.30±1.15	0.264				
Below Average grade (n=40)	3.11±1.18	0.337	92	1.4994	1.67	0.21

The p-value is obtained by a two-sample independent t-Test assuming equal variance at a 95% level of significance, p-value < .05 considered significant.

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Table 4 Domain-wise comparison of study habits means between male and female students

Study habit	Male (n=189) Mean± SD	Female (n=397) Mean ± SD	Statistical Inference p-Value
Textbook reading	3.04±1.88	3.53±0.77	<0.001**
Notes taking	3.01±1.02	3.65±0.83	<0.001 **
Memorization	3.17±1.16	3.49±1.07	0.001*
Exam preparation	3.23±0.93	3.77±1.13	<0.0001**
Concentration	3.92±1.11	3.81±1.16	0.026*
Time management	3.02±0.89	3.17±1.22	0.062**
Classroom activities	4.01±0.94	3.88±1.17	0.149**

* p value is obtained by a two-sample independent t-test at a 95% level of significance.

** p value obtained by Welch test
 p value < 0.05 is considered as significant

Table 5 Comparison of students' study habit score in different domain based on Students' academic performance

Study habit	Result			p-value*
	High grade n=492 Mean ± SD	Average grade n=54 Mean ± SD	Below average grade n= 40 Mean ± SD	
Textbook reading	3.59 ± 0.62	3.59 ± 0.62	3.56 ± 0.83	0.9470
Notes taking	3.34 ± 0.84	4.37 ± 1.82	3.31 ± 1.08	<0.00001
Memorization lessons	3.35 ± 0.60	4.35 ± 1.73	3.28 ± 0.62	<0.00001
Test preparation	3.71 ± 0.67	3.60 ± 0.76	3.60 ± 0.66	0.3546
Paying Concentration	3.56 ± 0.47	3.51 ± 0.56	3.24 ± 0.52	0.0003
Time management	3.39 ± 0.90	3.37 ± 0.82	3.48 ± 0.94	0.8118
Classroom activities	3.26 ± 0.78	3.28 ± 0.66	3.06 ± 0.88	0.2802

* p-value is obtained by one-way ANOVA test at a 95% level of significance.

Table 6 Comparison of Study habits scores between students of Government and Non-government medical colleges (n=586)

Study habit	Government (n=334) (Mean±SD)	Non- government.(n =252) (Mean±SD)	Statistical inference
Textbook reading	3.47±1.02	3.70±1.57	p=0.043**
Notes taking	3.12±1.29	3.62±0.88	p < 0.0001 **
Memorization	3.31±1.11	3.39±0.96	p= 0.351**
Exam preparation	3.66±0.63	3.74±0.85	p = 0.209**
Concentration	3.49±1.06	3.59±1.39	p= 0.323**
Time management	3.26±1.24	3.57±1.33	p = 0.003*
Classroom activities	3.04±0.77	3.53±1.14	p <0.0001*

* p-value is obtained by two samples independent t-test at 95% level of significance,

** P-value obtained by Welch t-test,
p-value <0.05 considered assignificant

Discussion:

Educationist

heprocessofenhancinganindividual'sabilitiesandpotentialtoprepare the for success in a particular society or culture. Academic accomplishment is a fundamental measure for evaluating one's educational aptitude and capabilities in the current culture. As a result, academic accomplishment is extremely crucial in both education and the learning process. One of the fundamental purposes of education has always been to improve student's achievements. The development of students' success is one of the key goals of every academic institute.⁹

The academic performance of a medical student draws the attention of everyone involved in medical education. Many stakeholders in medical education are concerned about student performance. Not just faculty members, but also medical college selection committees, curriculum

developers, instructional designers, and society are among the stakeholders.¹⁵

Students learning processes are influence d by a variety of circumstances. Study habits, self-concept, socioeconomic status, level of intelligence, motivation, personality, opportunities and training are only a few examples. "Study habits" is the only one of these elements that are dependent on students.

Students' study habits built from high school and college may not apply well to medical colleges and universities. In our country, guardians, home tutors, and private coaching facilities closely monitor students' activities throughout school and college (SSC, HSC and equivalent) periods. Medical colleges, on the other hand, have a very different educational atmosphere than undergraduate schools and colleges because their students are adults who are more self-sufficient and responsible for their studies. Students must acclimate to their new surroundings. To keep up with the wide syllabus and

ever-changing medical science, students must create new tactics and abilities and put them into practice in their everyday studies. Numerous aspects influence students' capacity to develop efficient and productive study habits. Students should be aware of these elements so that they can create acceptable study habits and can influence their academic performance. The primary goal of this study was to determine the study habits of undergraduate medical students in Bangladesh. In our study, we attempted to determine students' study habits in several domains as well as their academic achievement. This will allow researchers to uncover any flaws in medical students' study habits and investigate aspects that may influence their academic success.

Academic performance

Academic achievement, often known as academic performance, is a subset of educational advancement. It refers to a student's accomplishments in a variety of disciplines throughout an academic year. In today's educational climate, teachers, students, and parents are all worried about academic achievement. Academic success is used to select and distinguish pupils for various positions and career paths in many professions. Academic success is a fundamental criterion for assessing one's total academic aptitude and capabilities in modern society. According to our current research, the majority of students' academic achievement is of good quality. This finding differs dramatically from that of Looyeh et al.¹⁶ This is because our grading of academic performance was not done on any test or marks obtained in professional examinations. According

to Jahan¹⁷ students securing 60% and above marks in an examination were identified as high achievers and those securing 55% and below were identified as low achievers. The failure rate in professional examinations of our students is quite high; it is 16%.

Level of Study Habits

The current study found that undergraduate medical students in Bangladesh had average study habits in all dimensions except in the domain of paying concentration. This research backs up Lawrence's¹⁸ findings, which found that upper secondary school pupils' study habits are average, and their academic achievement was average as well. Gilavand¹⁹ looked into the state of study habits among Iranian medical students in a review article, he concluded that students' study habits and skills are moderate after analyzing all relevant studies.

Study habits and academic achievement

Many researchers have examined the relationship between study habits and academic achievement. The majority of them showed that there presents a significant positive relationship.^{1,6,12,16,20} Others show that there is no meaningful relationship between these two variables.^{18,21} The current study discovered that high-achieving students had much better study habits than students with below-average grades. There were no variations in study habits ratings between high-grade achievers and average-grade achievers, according to the current research findings. These discrepancies could be due to the fact that, in the current study, students' academic accomplishment was based solely on

pass/fail results in professional examinations, rather than on actual marks obtained in various professional examinations or any test.

Study habits of study male and female

In many nations, including Bangladesh, the proportion of women attending medical colleges has gradually increased over the last 30 years. It's fascinating to see that females consistently outperform males in practically all competitive examinations.²² According to another study, the gender ratio among medical students is 68 percent female to 32 percent male, with the ratio increasing by the day.²³ Despite many hurdles, this is a wonderful development that reflects women's empowerment in society.

Male-to-female student ratio in this study was around 1:2, and the female group performed better on professional exams. Females have higher academic accomplishments than males, according to Illahiet al.² Female students show much better meanscores in textbook reading, note-taking, memorizing, and exam preparation practices than male students, according to the current study. Females had a superior score in textbook reading, note-taking, and study habits than males, according to Nuthana and Yenagi⁸, while Kanmani et al²⁴ found that female students had higher note-taking, exam preparation, and time management scores than males. According to Madhavi et al²⁵, female students scored higher on note-taking, memory, test preparation, and time management than male students. Females perform better because they are more serious about studying, more dedicated to their families, and more home-bound due to cultural

considerations. They would have been influenced to establish better study habits as a result of this. Gender is a significant determinant in studies of student learning, according to research.²⁶ The majority of studies appear to suggest that female students have better study habits than male students, saying that women take better notes and recall more information from lectures, spend more time on homework, and are more serious about goal setting and planning.²⁶

Comparison of Study habits between students of Government and Non-Government medical college

The present study showed students at non-government medical colleges have better study habits than government students in the domains of textbook reading, note-taking, memorization, concentration, time management, and classroom activities. This finding supports the study of Pareek.²⁷ In contrast, the study of Lawrence¹⁸ revealed that government school students have a higher level of study habits than other school students. This difference is due to the more accountable nature of faculty to college authorities regarding students' academic performance in professional examinations. In government medical colleges, students are free and more involved in politics, and there is less pressure from teachers. Non-government medical colleges are free of politics. Families of students of non-government medical colleges are also putting more pressure on their children to succeed in examinations since parents are under a lot of financial strain. Students in public schools, according to Hussain²⁸ come from low- and middle-income backgrounds. These families are dealing with a

variety of issues that are producing emotional distress in their children, resulting in poor academic achievement.

Conclusion

The finding of the current research highlights that undergraduate medical students of Bangladesh have an average level of study habits. The findings also suggest that students with better performance in the professional examination have better study habits than poor performers. These mediocre level study habits are unacceptable for the students who have the highest GPA and got admission to medical colleges. There is a lot of scope for improvement in the overall study habit so undergraduate medical students. It is essential to inculcate good and effective study habits among students. The formation of effective study habits will increase the likelihood of regular and steady learning. Both teachers and students need to have a clear understanding of what benefits or hinder one's educational achievements.

Recommendations

Teachers should motivate students to acquire good study habits. They should guide and teach students how to inculcate good study habits among students. Students can be trained on certain study habits and strategies by arranging a short training program or workshop on study habits. Teachers should accurately identify the study habits of struggling students and guide them to develop effective study habits.

Declaration of interest

The author reports no conflicts of interest. The author alone is responsible for the content writings

of this article.

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