

# Relationship Between Study Habits and Academic Achievements in Undergraduate Medical Students

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## ABSTRACT

**Objective:** To relate the study habits of medical students in Muhammad Medical College (MMC). To analyse the difference in study habits and academic achievements in male and female medical students in MMC.

**Study Design:** Correlational comparative study design

**Place and Duration of Study:** This study was conducted at Muhammad Medical College, Mirpurkhas from February 2018 to April 2018.

**Materials and Methods:** Medical students of 2<sup>nd</sup> and final year were asked to fill a questionnaire regarding their study habits and academic performance after obtaining written consent from them. After fulfilling the inclusion and exclusion criteria a total of 109 students (50 from 2<sup>nd</sup> year and 59 from final year) entered the study.

**Results:** A strong association amongst study habits and academic achievements (94.3%) was seen.

There was a significant difference (p-value 0.003) among the study habits and academic achievements of male/female medical students. Female students have significantly better (p-value 0.003) study habits than their male counterparts.

**Conclusion:** Student's study habits are likely to affect their academic achievement. The findings of the study identified that good study habits of students contribute as learning guidelines for them leading academic achievement.

**Key Words:** Study habits, questionnaire, academic achievement.

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## INTRODUCTION

Study habits of a student are the preferential way in which a student absorbs, comprehends, and retains information. It is the tendency of a student to undertake regular learning activities regarding academic tasks. Habits are reflected in the study routines of students (such as revising study material, number and frequency of study sessions, self-study, combined study choices)<sup>1,2</sup>. Study habits are the ways in which students plan studies after lecture hours<sup>3</sup>.

This study has been carried out particularly for the purpose of analysing the role of study habits in the context of academic achievement.

Medical student often enter in medical schools without sufficient skills needed in order to overcome challenges that they are about to face.

Academic growth of medical students is linked with adequate learning habits as well as with discussion and cooperation with peers and teachers<sup>4</sup>. Students need to develop various skills to succeed in modern healthcare environment which include being self-directed, critical thinkers working with teams<sup>3,5</sup>. These skills are often linked with study habits of medical students<sup>5</sup>. Student's success is dependent upon their study habits and how academic tasks are approached<sup>6</sup>.

Studies also show differences in study habits according to gender that can influence academic achievement hence it can be said that there are certain prominent differences in the study habits of male/female students when it comes to studying<sup>7,8</sup>.

## MATERIALS AND METHODS

This was a correlational comparative study conducted at MMC. The study is survey based on a questionnaire inquiring about the study habits of the students and then to associate study habits with academic achievements.

**Study Population:** All 2<sup>nd</sup> and final year medical students. A total of 109 medical (59 - final year, 50 - 2<sup>nd</sup> year) students of Muhammad Medical College completed the forms. Total female students were 55 while male were 54.

**Inclusion Criteria:** Second year and final year students who successfully passed the first year and 4<sup>th</sup> year examinations respectively.

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- All students who gave written consent and filled the questionnaire.

**Exclusion Criteria**

- Students who did not reveal their enrolment number/identity.
- All students who had migrated to the college in 2<sup>nd</sup>/final year or with results withheld.

**Sample Size Estimation:** At MMC, the researcher was able to distribute and collect 200 questionnaires. However, 40 respondents did not sign the consent form and 51 respondents did not complete the questionnaire. After discarding them, results and conclusions were based on 109 questionnaires.

**Methodology:** Data was analyzed for percentages of baseline characteristics. Mean scores were calculated after comparing the study habits of students with respect to gender and examination results. Relationship of study habits with gender and academic achievements was analyzed.

**Research Instruments:** Data was collected through a questionnaire consisting of two sections, first consisting of the demographic data: student’s name, roll number, gender, academic year they are currently in. Next section in the questionnaire is related to study habits of respondents. 14 questions centred on study habits were asked with 5 options - strongly agree (3 points), agree (2 points), neutral (0 points), disagree (-2 points) and strongly disagree (-1 points) as answers. The students choose the answer they most approved of.

**Data Collection:** This study focused on collecting data from 2<sup>nd</sup> and 5<sup>th</sup> year M.B.B.S. students. The researcher obtained permission from the ethical review board of Muhammad Medical College to conduct the research process. Consent from all participants was obtained. Permission was obtained to acquire results of the students participating in the study from the examination department to relate their study habits with their academic achievements.

The questionnaire was developed in consultation with heads of departments of Physiology, Anatomy and Pathology. The researcher also conducted a pilot study on 30, 4<sup>th</sup> year medical students. Changes in the questionnaire were made in accordance with student’s requirements.

**Statistical Analysis:** The data was stored and analyzed using SPSS –IBM version 23.0. All values were checked twice for any error. All p-values less than 0.05 were considered significant.

**RESULTS**

The relationship between study habits and academic achievements of 109 students was assessed. The results in table 1 show the value of Pearson Correlation coefficient and the significance value. The value of Pearson Correlation in the above table is 0.943 showing that there is strong association among both the

variables. This can be re-phrased that among study habits and academic achievement there is 94.3% strong relationship. The sig value in the above table is 0.000 which is less than 0.05 hence there is a strong association amongst study habits and academic achievements.

**Table No.1: relationship b/w study habits and academic achievements - Correlations**

		Study Habits	Academic Achievements
Study Habits	Pearson Correlation	1	.943**
	Sig. (2 tailed)		.000
	N	109	109
Academic Achievements	Pearson Correlation	.943*	1
	Sig. (2 tailed)	.000	
	N	109	109

\*\*Correlation is significant at the 0.01 level (2-tailed).

**Table No.2: Comparison b/w Study habits & Academic achievements in total number of male and female students - Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Study Habits	Female	55	1.7614	.81411	.10977
	Male	54	1.3009	.78590	.10695
Academic Achievements	Female	55	1.4515	.87057	.11739
	Male	54	.9198	.92414	.12576

Table 2 shows the group statistics for comparison of gender with the studying habits and academic achievements. The first variable which is compared against male and female students is studying habits of the students. The mean value for the studying habits for female is 1.76 with 0.814 standard deviation. The mean value for the studying habits for male is 1.30 with 0.784 standard deviation. The mean value for females is greater than the mean value of males. The second variable compared against male and female students is academic achievement of the students. The mean value for the academic achievements for female is 1.45 with 0.87 standard deviation. The mean value for the academic achievement for male is 0.919 with 0.924 standard deviation. From the comparison of both male and female respondents it can be said that the mean value for females is greater than the mean value of males and the deviation in the mean is greater for males in terms of academic achievements. Thus it shows that in terms of academic achievement females tend to perform more efficiently as compared to their male counterparts.

**Table No.3: Difference in Study habits and Academic achievements of male & female medical students – Independence Sample Test.**

		Levene's Test for Equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	St. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Study Habits	Equal Variances assumed	.224	.637	3.003	107	.003	.46044	.15331	.15652	.76435
	Equal Variances not assumed			3.004	106.970	.003	.46044	.15326	.15662	.76426
Academic Achievements	Equal Variances assumed	.022	.882	3.093	107	.003	.53176	.17194	.19092	.87261
	Equal Variances not assumed			3.091	106.351	.003	.53176	.17203	.19070	.87282

Table 3 shows the differences in mean values where the two genders (male and female) are compared against the study habits and their academic achievement and shows if there is any difference among the study habits and academic achievement of male and female medical students. The T-test for the first variable clearly shows that the p-value is 0.003 hence there is a significant difference among the studying habits of male and female students. The second variable which is tested against the gender of the respondents is academic achievement. We wanted to analyze if there is a difference among both the groups. Here the p-value is 0.003. Hence, there is a significant difference among the academic achievements of male and female students. The results of the correlation analysis shows that there is a strong association amongst study habits and academic achievements and there is a significant difference among the study habits and academic achievements of male and female students.

## DISCUSSION

The findings of the study identified that study habits of the student in order to complete their studies contributes as learning guideline for them and results in their academic achievement. Most of the respondents responded that effective learning habits are likely to play essential role in the improvement of academic performance within medical education. It has been identified that there is a significant relationship between study habits, learning strategies and academic success, particularly in the field of medical education. Academic achievement is an important aspect in the entire educational process and aimed by all students at every stage of the learning process<sup>9,10,11</sup>.

There have been several factors that are considered to be influencing the academic achievements and learning outcomes of a student<sup>12,13</sup>. The responses of the

respondents claimed that if a student has good study habits such as studying regularly, making and reviewing notes, listening attentively in class, working on a planned and organised basis, and reading textbooks, then the student is likely to succeed and achieve academic achievement successfully in the learning process<sup>12,13</sup>. On the other hand, it has also been identified through findings of the study<sup>9</sup> in 2010 that if a student has bad study habits such as not completing work on time, being excessively involved in extracurricular activities, low attendance, and not studying regularly enable students to perform incompetently in the education and learning process and not able to achieve desirable academic success in his/her academic life<sup>10</sup>.

While considering the study habits and academic achievements, it is essential to assess and discuss the gender differences and how gender differences are perceived to act upon these factors. The study of Farooqi<sup>11</sup> supports this and found that female students perform better than male students within the medical field. Few researchers have indicated differences in attitude, behaviour, and values of female and male students towards the academic performance and hence both of the gender develop different learning habits and styles<sup>12</sup>. Educational attainment of student is much more dependent upon attitude, interest, and motivation of students. However, one study found that gender difference has no impact on study habits and academic achievement within the context of medical students<sup>13</sup> probably because the number of female students in the study was much lower than the male students.

The findings of the study emphasised that student's study habits are likely to prepare students for their assessment and examination tasks, their level of understanding and intellectual ability. Most of the

respondents also agreed with the statement that medical students are required to adopt new study habits for attaining their set academic goals and higher grades in their courses<sup>13</sup>.

The responses of the respondents identified that high attendance in lectures and classes is a significant factor that impacts on the student performance to work at their optimum level of efficiency<sup>13,14</sup>. Student habits like attending classes regularly and staying updated with the course work provided by the institute enable students in staying up to date and also influence directly on their performance level. This asserts that attendance is one of the major factors that has direct influence on their study habits and academic achievement<sup>15</sup>.

Giving extra hours to the study is also an essential aspect that has impact on learning outcomes.

Moreover, students who have high intellectual abilities evaluate and sustain their study habits, and cautiously evaluate the factors that impact on their learning and achievement and they always look for guidance from their peers and teachers. High performing students are also self-motivated and have good time management skills<sup>16</sup>.

Characteristics of low performing students have also been identified and respondents of the study stated that bad study habits, low socio-economic status, bad social integration, poor family culture, low self-esteem are factors that contribute in low performance of the students unable to achieve desirable academic success in their educational efforts.

Our study has identified that interest influences the study habits and learning behaviour of a student and interest enables students to acquire good study habits for in-depth insight and knowledge regarding courses and syllabus that assist them to achieve higher grades and academic achievement in the medical field. The findings of research determined that undergraduate medical students have a positive relation of study habits and gender differences. Male students are observed as lower performance students and have lack of ability for taking notes of the lecture and have poor reading skills. This study also proves that the students of both the genders are likely to spend more time on reading the non-academic material and extra-curricular activities that result in bad performance and failure in exams and thus affects the overall academic achievements<sup>13,14</sup>.

On the other hand, there is a significant relationship between the studying habits of male students and female students. This study<sup>15</sup> supports the findings of our study and determined that the study habits are likely to change the academic performance of the medical students. Our study has been carried out effectively and revealed that the students are likely to have better academic performance and exhibit effective study attitude through which the students can attain better academic results if they can divide efficient time for learning and indulge in effective study habits<sup>16</sup>.

## CONCLUSION

On the whole, the study proved that student's study habits are likely to affect their academic achievement. The findings of the study identified that study habits of the student and their effort in order to complete the studies contribute as learning guidelines for them and leads to academic achievement.

### Author's Contribution:

Concept & Design of Study:	Nighat Kafil
Drafting:	Nighat Kafil
Data Analysis:	Nighat Kafil
Revisiting Critically:	Nighat Kafil
Final Approval of version:	Nighat Kafil

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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