

A Systematic Review: Correlation of Study Habits and Academic Performance of Medical Students

Shama Khan^{1*}, Javeria Dawar², Palwasha Yasin³, Sumaira Abid⁴, Muhammad Hussain⁵, Huma Balqias⁶ and Syed Alamdar Hussain⁷

¹Teaching Assistant, Rehman College of Rehabilitation Sciences, Peshawar, Pakistan

²Graduated, Rehman College of Rehabilitation Sciences, Peshawar, Pakistan

³Internee at CMH Peshawar, Peshawar, Pakistan

⁴Physiotherapist at Zia Medical Complex, Peshawar, Pakistan

⁵Assistant Professor, Rehman College of Rehabilitation Sciences, Peshawar, Pakistan

⁶Junior Lecturer, Rehman College of Rehabilitation Sciences, Peshawar, Pakistan

⁷Lecturer, Northwest Institute of Health Sciences, Peshawar, Pakistan

***Corresponding Author:** Shama Khan, Teaching Assistant, Rehman College of Rehabilitation Sciences, Peshawar, Pakistan.

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Abstract

Background: Study habits can be defined as the normal routine act of studying which also has an influence on cognitive process. Many activities are included in study habits i.e. management of time, selecting a desired study environment, setting goals, strategies for appropriate note taking and organizing the study routine. There is dependency of study habits on academic performance. A good study pattern has a great contribution towards academic performance of student as it develops a sense of working more effectively, efficiently and ultimately leading to higher scores and experiencing lesser stress in the process. Researchers claimed that study habit is one of the reasons in achieving academic success and that a relationship exist between study habits and academic performance. Therefore, the aim of this review is to find the correlation of study habits and academic performance of medical students.

Materials and Methods: Literature review regarding correlation of study habits and academic performance was conducted using databases i.e. PubMed, Ovid, Cinahl and Google Scholar. In this review only the articles published in English language from 2010 - 2020 were retrieved. Key words included for searching relevant literature were 'study habits' and 'academic performance' or 'academic achievement' and medical students.

Results: The author included a total of 4 studies in this review. Three of the studies showed positive correlation between study habits and academic performance of medical students. One of the studies showed negative correlation between study habit and academic performance. The score for learning motivation was highest while the score for wellbeing was lowest with r value ranging from 0.229 - 0.37. Factors affecting the academic performance of students are probation, study source, resident and gender.

Conclusion: From this study the author concluded that correlation between study habits and academic performance exists. Good study habits result in good performance of student's this is favored by the positive correlation of three of the studies that the author retrieved while one study showed negative correlation.

Keywords: Academic Performance; Medical Students and Study Habits

Introduction

Education is of great importance not only in polishing the human being but also enabling him to attain his target goals and making the individual a better person [1]. Education plays an essential role in the development of any country and it is quite obvious that without education human could not succeed and remain as another animal race [2]. In human history each decade has experienced life changing modification and has great change in the field of education [3]. In order to improve the standards of education, there are different processes and strategies that are important although hard work is mandatory for learning purpose [4].

Academic performance is the key in accessing the quality of education [5]. Academic performance is a convoluted process that is determined by many factors, one of them being study habit [4].

Study habits can be defined as the normal routine act of studying which also has an influence on cognitive process. Many activities are included in study habits i.e. management of time, selecting a desired study environment, setting goals, strategies for appropriate note taking and organizing the study routine [6].

Study habit is the highest learning factor that influenced academic performance of a student [7]. A good study pattern has a great contribution towards academic performance of student as it develops a sense of working more effectively, efficiently and ultimately leading to higher scores and experiencing lesser stress in the process of learning [8]. Proper study habit enables an individual to excel well in their academic performances [7]. If learning strategies are not design efficiently it will eventually effect the learning process and the student may not succeed well in their academic performance [9].

There is dependency of study habits on academic achievement. As many students belong from different localities and environment so this accounts for differences in academic achievement. Best academic achievement is directly related to better study habits [10]. Researchers claimed that study habit is one of the reasons in achieving academic success and that a relationship exist between study habits and academic performance. This is the reason of increasing number of researches on this topic. In highlighting its importance, they said that students fails to achieve good academic performance not because of lacking the ability of learning but due to absence of study habits [11]. Study habits or habit are the ways utilized when preparing for a test or learning new topics from a given course. Students who wait until the very last night before an exam and then drain their energy to memorize topics without having a clear understanding of them is an example of a bad study habit. Study habits are basically the ways you study which may prove to be either beneficial or completely ineffective, depends upon the plan the student has set for him [12].

Some students study all day, some only for a few hours. Some students cram topics, some simply understand them conceptually. Some students study a few days before exam having not even touched or looked inside of a book during their entire semester or class year. Some students might study alone in solace and tranquility. Some might find it easier to study attentively in a group setting or where there are a lot of people doing the same thing as a library. So, there is no clear way of studying that would have effective outcomes. Because every student is different from another. These habits can be either inherited or acquired. There is no strict and fixed method to determine which habits are beneficial and which are not. Study habits are an essential part of achieving success in all aspects of life. They may either be good or bad [13].

Good study habits include: Attending all of your classes on time, meticulously listening to the teacher and at the same time taking notes when presented with the opportunity, carrying out the given homework or assignments on time and learning from them instead of simply completing them as a formality, participating in class projects, research, setting a proper schedule for yourself in which you can study effectively while also sparing time for yourself to relax to allow what you've learnt to properly spread and be processed by your mind [14].

Bad study habits on the other hand are ones that prove to be ineffective in you achieving success such as studying in places where there are a lot of distractions, not paying attention in class, not taking notes, not completing assignments on time, not having a sound study schedule, being lazy and disorganized, not getting enough sleep, staying up late, spending a lot of useful time on unnecessary and secondary activities. So, for the academic performance of students to improve, they must adopt good study habits and remain clear of bad habits. Good habits reduce the wastage of time and energy whereas bad habits waste a lot of your valuable time [15].

All parents want from their children is to excel in their academic life. They want them to be at the top of their class. Score better than others, so that they can enroll in prestigious institutions, all to attain a successful life ahead. This is quite understandable. But the one negative impact which is often overlooked is that it creates pressure upon students, peers, teachers and the entire education system for the students to excel. This ironically leads to poor study habits, depression, habituation to drugs, poor scores and academic achievements. Parents often wonder why one student scores more than the other [16].

Learning is a lifelong process: One always comes across different things to learn, new experiences. Now learning can be enticing but when it comes to studying and knowing that there will be a lot of hard work involved, then the person/student starts to lose interest. It is perfectly natural to not be inclined to study but once you accept the reality of studying, then you will be able to form an organized schedule that if you follow, you can become successful. And once you get into the rhythm of studying, over the course of time you automatically come across different learning strategies, different ways of studying smartly which then also allow you to enjoy the process of learning and keep things fresh [17].

As students play the primary role in the development of the society and their success and progress is linked to their academic progress which is being influenced by their study habits. The improvement of the academic performance is one of the main objectives of educational centers. By determining students study habits and its relation with their academic performance will improve their academic achievement, strengthen and modify their study habits. The reason of underachievement among students is lack of time in their studies. A low self-concept and unsatisfactory habits have a negative impact at micro and macro level. Good study habits have a role in achieving good grades as compared to poor study habits. Good study habits, following an organized schedule will allow the student to climb the ladders of success easily. And one also monitors their academic progress, work out the pros and cons and shape their study habits accordingly in order to stay updated and on track. For career actualization and better academic performance good study habits must be cultivated. Modifying study habits can bring a massive change in accomplishing goals and organizing one's life. Moreover, study habits highly determine one's success. Education is the true reflection of one's innate perfection and this perfection is brought by study habits. This study will be of immense importance not only for students but also for the teachers and course writers as students would identify the bad study factors leading to poor academic performance furthermore counselling can be done to eradicate such habits responsible for poor outcomes.

Materials and Methods

The author has searched on PubMed, Ovid, Cinahl and Google Scholar. However, these 4 databases were searched individually to come up with the appropriate number of articles. Articles from 2010 - 2020 were taken by the author. Studies in which the students have undertaken previous examinations, who had used PSSHI questionnaire and whose outcome was academic performance. Only cross sectional studies were added by the author. The results of databases after a comprehensive search by the author using key words are shown in the table below.

Results

The author applied the designed search strategy to individual databases (Google scholar, Ovid, PubMed and Cinahl) till 28th August 2020 that yielded relevant research articles as shown in figure 1. The total number of articles retrieved on these databases was 50 within the set time frame of 10 years by the author i.e. 2010-20. Secondly, there were 4 duplicates identified in the results of the search on the

Data Bases	Search terms	Results
Google Scholar	Study habits	1840
	Academic performance	1360
	Study habits and academic performance	38
PUB MED	Study habits	265
	Academic Performance or Academic achievement	202
	Medical Students	239
	Study habits and academic performance or academic achievement and medical students	4
Ovid	Study habits	311
	Academic achievement and academic performance or medical achievement	1479
	Medical students	1390
	Study habits and Academic achievement and academic performance or medical achievement and medical students	1
Cinahl	Study habits	891
	Academic achievement or medical achievement	14,134
	Medical students	16,251
	Study habits and academic achievement or medical achievement and medical students	7
Total		50

Table: Showing results of searches.

aforementioned databases which were excluded by the researcher. Hence, leaving the total count of the articles to 46. Moreover, the researcher screened the title and abstract of those 46 articles from which 40 were removed due to their irrelevance and not accomplishing the aim and objective of the current review. As, the researcher came to such a low number of articles therefore the author examined the full text of these articles. Furthermore, 2 articles were removed by the author as their assessment tool wasn't the one researcher was looking for. As a result, 4 articles were included in this systematic review by the researcher.

The outcome of studies the author retrieved in this review was academic achievement. The main aims of these studies were to find the correlation between study habits and academic performance. The findings of all the studies included in the current review were based on correlation coefficient of greater than 0 and was considered positive with p value of less than 0.05. The r and p value of each individual article is given in the table. The studies included in our review were based on the Pulsane and Sharma Study habit Inventory tool which is standard questionnaire and has a reliability of 0.889 [18]. The PSSHI include 8 areas i.e. time management, physical condition, learning ability, reading ability, note making, memory, exams and health of study. According to PSSHI questionnaire used by the author for the current review the maximum obtainable score is 90 and minimum is 0. Score below 30 is considered undesirable. A score between 31 to 59 is considered relatively desirable. Score greater than 60 is considered as desirable study habits [18].

The study habits of the students according to the 4 studies retrieved by the author mostly lie between 45 - 56 which are relatively desirable study habits. Academic performance of students lies in average range. Factors affecting the academic performance of students are probation, study source, resident, learning motivation, time management and well-being [19]. Probation is considered as one of the major causes of student's poor academic performance. The students without history of probation had better study habits and achieve better performance in the coming examination. Students using electronic sources also had good study habits and gain better academic performance.

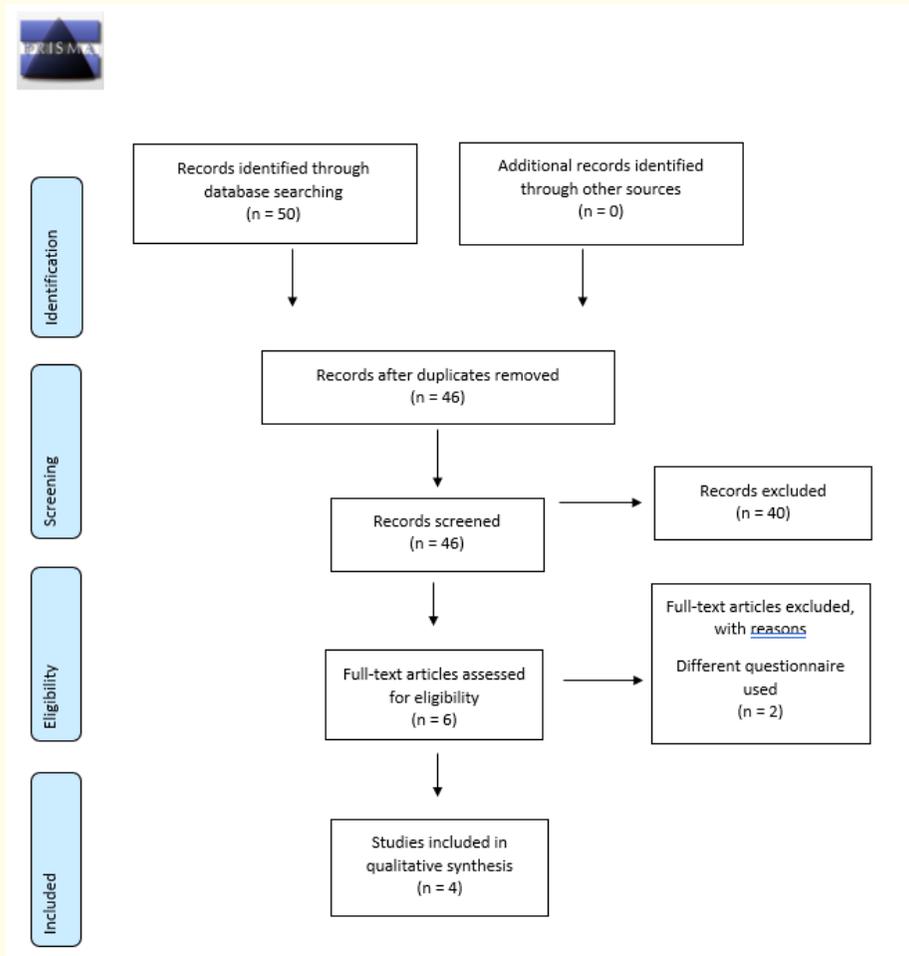


Figure 1: Prisma flow diagram.

The academic performance of students was explained by the studies included based on gender variation. All the studies stated that the study habits of female are better than the study habits of male. This leads the author to the point that due to better study habits female excels more in the academics as compared to males. However, this shows that study habits do have effect on academic performance.

All the three studies showed positive correlation between study habits and academic performance with r value ranging from 0.229 - 0.37 [18-20]. The score for learning motivation was highest while the score for wellbeing was lowest in all the studies retrieved by the author. Wellbeing was considered as undesirable study habits while time and learning motivation was considered as desirable study habits. One study showed negative correlation of study habits with academic performance with r value of -0.05 [21].

Discussion

Author added four studies after a detailed search of all the databases based on inclusion and exclusion criteria. Total of 1545 questionnaires were distributed among the medical students in these four studies included by author. Out of these 1545 questionnaires 1358

students responded. 187 questionnaires were not properly answered by the students and were excluded. So, the total number of students included in this review from these four studies were 1358 with average response rate of 88.65%.

The main aim of current review was to determine the correlation of study habits and academic performance of medical students. For accomplishing the aim and objectives of this review four studies were included by the author. According to these studies study habits of students ranges between 45 - 56 which are relatively desired study habits. Academic performance lies in the average range according to these four studies. Contrary to this another study stated that the academic performance of only those students lies in the average range who study prior to their examination [22].

The academic performance of students was explained by the studies included based on gender variation. These studies explained that the study habits of females are better than the study habits of male which leads the females for achieving good academic performance. Female students spend most of their time reading their textbooks whereas the male students tends to consume their time in watching TV, playing games and get along with their friends to take pleasure inn [22]. Equivalent results have been shown in another study that reported girls spend most of the time in home and have much more time for studying while boys are much more involve in outdoor activities which ultimately affected the academic performance [15]. Another study exhibits no significant relationship between study habits and gender while other factors like study timing, study materials, study interpretations and gratification during study break had significant effect study habits [23].

According to the studies included in this review the domain learning motivation and time management of study habits was highly related to academic performance while according to another study the factor affecting academic performance was only time management. Students should be encouraged in such environments where they can utilize their time effectively and efficiently [23].

A good study habit depends upon the following factors e.g. studying on daily basis, sitting in a quiet place while studying, making notes of important content, taking rests and breaks between study sessions. All these factors lead to good academic outcome. It means that a good study habit ultimately leads to good academic performance [19]. The foremost mentioned statement is supported by the study that bad study habits leads to poor academic performance [24].

Study habit is one of the reasons in achieving academic success and that a relationship exists between study habits and academic performance. Moreover, the results of current review support this statement that good study habit has high impact on academic performance.

Three of our studies showed positive correlation between study habits and academic performance [18-20]. The reason for significant relationship is in order to gain good academic outcomes. Peer help also had a role in addition to learning, memorizing and mental rehearsals of important points [25]. On the other hand, one of the studies showed negative correlation between study habits and academic performance [21]. The reason for non-significant relationship is that the negative expectation of the student from the outcome of their study fields and decline in job opportunities as a result of mismatch present between admissions of students and requirements of community [26].

The studies included in this review showed that there is dependency of academic performance on study habits. The study habits of medical students in this review were at average level which is not acceptable considering the demand of medical students in their upcoming future. Improvements in the study habits of the medical students should be encouraged by their teachers in order to achieve good academic performance. Different educational workshops and seminars should be added to the curriculum every year for compelling the students to gain motivation for improving their study skills.

Conclusion

In the current systematic review, the correlation between study habits and academic performance were discussed. Three of the studies included in this review favored positive correlation between study habits and academic performance. One of the studies showed negative correlation of study habits and academic performance. Good study habits enhances good academic performance of the students as compared to bad study habits. Students should be encouraged to make proper study plan, utilize their time properly, develop the habit of note making ability for achieving higher academic performance.

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