ORIGINAL ARTICLE

EXPLORING STUDY HABITS OF MEDICAL STUDENTS IN AN UNDERGRADUATE MEDICAL SCHOOL IN PESHAWAR: A DESCRIPTIVE CROSS-SECTIONAL STUDY

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ABSTRACT

Objectives: To explore the study habits of undergraduate medical students and their study schedule strategies.

Material and Methods: This was a cross-sectional study conducted on medical students at Khyber Medical College, Peshawar, in May 2019. A total of 118 students were invited to participate in the survey using the convenience sampling technique. However, 82 (69%) students returned signed consent forms and were then asked to complete the questionnaire. All respondents provided information about their study schedules and routines.

Results: Most of the students who scored between 80 and 90% in their academics tended to study for about 2-4 hours a day, could concentrate for 1-2 hours at a stretch, and switched places during their studies. Students scoring above 90% reported studying from 9 to more than 12 hours daily, studying from 2 to more than 3 hours in one stretch, and their studies were unaffected by vacations.

Conclusion: The students achieving higher academic scores studied regularly for about 2-4 hours daily, could concentrate for 1-2 hours at a stretch, preferred switching places during their studies, and took breaks that lasted around 30 minutes.

Key Words: medical students, study skills, academic performance.

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INTRODUCTION

Studying medicine can be challenging. Only the best students from high schools and pre-medical studies get into medical schools after passing through a thorough selection process.[1] The medical field can get extremely stressful and tough, which ultimately leads to a fall in academic performance. Students in medical schools face numerous obstacles because of the vast amount of knowledge, and so, even students who have previously excelled academically may need to develop new study strategies.[2] Academic performance and achievements both within and outside of the classroom are determined by effectual study techniques.[3]

Developing effective study approaches is crucial to academic achievement and plays a significant role in medical school achievement. Since students in medical training are adult learners, they are required to use effective methods to accomplish their goals.[4] Often, new college students lack the necessary skills to handle the difficulties of the different learning environments. Their flexibility to adopt the best tactics for a specific learning circumstance will ultimately determine whether they are successful or unsuccessful in their curriculum. [5] A variety of coordinated cognitive abilities and practices that improve students' learning efficacy are referred to as study skills. [6]

Research on the individual study strategies of successful medical students is lacking. This study sought to explore the study schedule strategies that academically successful students make use of, with successful students being defined as those who scored 80% or more on their last professional examination. In particular, we were interested in how these students manage their time efficiently and how they time their study routine. Sharing the results of this study may help future students to guide them in enhancing their learning strategies.

MATERIALS AND METHODS

Khyber Medical College (KMC), Peshawar, has been a pioneer institution in medical education in Khyber Pakhtunkhwa (KP) since 1954. Today, KMC enrolls about 250 students yearly, and a large number of graduates who pass out from KMC are providing healthcare, not only in KP and its merged districts but also in the rest of the country and even abroad. The participants of this study were Year 3 medical students at KMC, who were included in

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the study using the non-probability convenience sampling technique. The research was based on a simple descriptive cross-sectional survey design.

A structured questionnaire that was used in this research consisted of two sections. The first section had 3 questions, which were designed to collect the demographic data of the respondents. The second section consisted of 11 questions and required the students to first give the results for their previous professional examinations and then go on to particular questions like how many study hours their day consisted of, how long they studied in one stretch, etc. The questionnaire was pilot tested on Year 4 students at KMC. Those questions that had ambiguities were refined by the field experts. The questionnaire was then distributed among Year 3 medical students at KMC to collect information on how they manage time for their academic activities. A total of 118 students present at the time of the distribution of the questionnaire were invited to participate in the survey. However, 82 students returned signed consent forms and were then asked to complete the questionnaire. All the students remained anonymous during the data collection.

Once the data was collected, it was analyzed using SPSS-22. Participants self-reported performance in the last year (exhibited in the form of marks obtained; i.e., 60-70%, 70-80%, 80-90%, and above 90%) was used to place students in one of four groups. Successful students were those who scored 80% to 90% or more than 90%. Frequencies of students' study habits; study hours in a day; making use of schedule making; studying in one stretch, etc., were reported for the entire group and separately divided into categories based on average scores during their most recent year of medical school. Incomplete questionnaires were excluded from the analysis.

RESULTS

Data was collected from a total of 82 third-year medical students of KMC, which comprised 61% (n = 50) male and 39% (n = 32) female respondents. Results are shown in Table 1.

In terms of study habits, Figure 1 shows the comparison between hours studied and marks obtained by the students, while Figure 2 shows study duration (in one stretch) and marks obtained by the students.

More than 12 hours of the study was not strongly associated with success, as only 1 student scoring above 90% reported doing so, and none of the students who had made between 80-90% fell into that category, as shown in figure 1.

Analysis showed that studying for a very long time in one stretch does not always result in academic success, as shown in figure 2. Students who had scored between 80 and 90% were found to have studied for only about 1-2 hours in one stretch. Studying for more than 3 hours in one stretch was not associated with success, as only 1 student who had scored above 90% reported doing so.

Two of the students who had scored above 90% reported having the same concentration level even during vacations. On the other hand, 7 (58.3%), i.e., the majority of those who had scored between 80-90%, stated that they studied only if they had an examination approaching after the vacations. This is in contrast to the students who had scored between 70 and 80%, as 19 (35%) students claimed that their concentration level was not like the other working days or, to be precise, they did not study like regular days during vacations.

The data regarding the duration of breaks for successful students and regular students demonstrated interesting trends. It was observed that 1 of the students who had scored above 90% took study breaks lasting less than 30 minutes, while another reported his study breaks lasted between 30 minutes and 1 hour. Similarly, 10 (83.3%) students who had scored between 80 and 90% reported that their study breaks lasted between 30 minutes and 1 hour. Many of the students, i.e., 13 (24%) who had scored between 70-80%, stated that they took breaks of more than 2 hours in length. In the same manner, 3 (29%) students who had scored between 60 and 75% fell under the same category.

The results also demonstrated that switching places during the study might be beneficial. Half of the students who had scored above 90% reported changing places during the study. In the same way, 8 (67%) students between 80-90% also fell into the same category. On the contrary, 24 (44%) students who had scores between 70 and 80% said they did not switch places during studying. The same was the case with the students who fell into the 60–70% group.

Other than the study schedule strategies used by successful students, some other random trends were also observed in the data. There was a significant statistical association between the scores of hostellers and day scholars. Those students who had scored above 90% had 1 (50%) hosteller and 1 (50%) day scholar. Those who had scored between 80-90% consisted of 9 (75%), i.e., the majority of day scholars, while only 3 (25%) were hostellers. On the contrary, the majority of those students who had scored between 60 and 70% were hostellers, i.e., 11 (79%), and the same was the case with the students who had scored between 70 and 80%.

DISCUSSION

The results indicated that some study strategies were linked to success in medical school. One important finding of the analysis was that studying for longer periods does not always lead to academic success. Results indicated that most of those students who performed well

Table 1: Questionnaire along with the responses received.

PARTICIPANT'S DEMOGRAPHIC DATA:				
No. of Participants	82			
Mean age (standard deviation):	21.35 (SD: 0.89)			
Gender (in percentages)	Male: 61%, Female: 39%			
SURVEY QUESTIONS				
1. Academic result in previous professional examination:	60-70%	70-80%	80-90%	Above 90%
Respondents	14	54	12	2
2. Are you a:	Hosteller/ Boarders		Day scholar	
Respondents	53		29	
3. Do you have a study schedule?	Yes		No	
Respondents	28		54	
4. What is your optimal time of the day for studying?	Morning hours		Evening hours	
Respondents	32		50	
5. How much do you tend to study with concentration in one stretch?	30-45 minutes	1-2 hours	2-3 hours	More than 3 hours
Respondents	34	35	9	4
6. How long does your study break last?	5-15 minutes	15-45 minutes	1-2 hours	More than 2 hours
Respondents	14	37	12	19
7. How many study hours does your day consist of?	2-4 hours	4-9 hours	9-12 hours	More than 12 hours
Respondents	52	22	6	2
8. Do you study more on:	Weekends		Weekdays	Equally on both
Respondents	43		18	21
9. Do you study with complete concentration even during vacations?	Depends on when my next examination is		Yes	No
Respondents	26		31	25
10. Does your study capacity and concentration level die down over the week?	Sometimes		Yes	No
Respondents	16		52	14
11. Do you switch places during your study?	Yes		No	
Respondents	47		35	

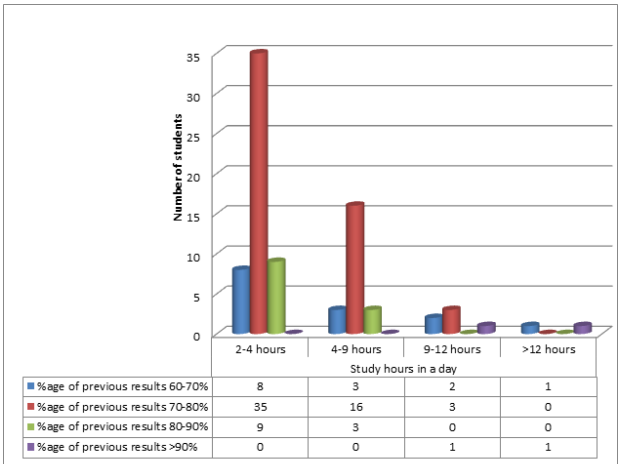

Fig 1: Comparison between hours studied per day and individual scores obtained.

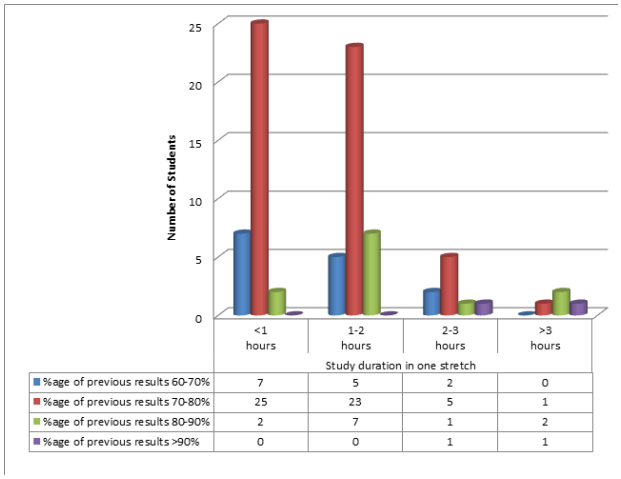

Fig 2: Study duration in one stretch vs. individual score obtained.

on examinations (i.e., scored between 80-90%) studied for about 2-4 hours a day. The results of our study were similar to another study, which stated that the most successful students overall were the ones studying for about 6–8 hours a day outside the classroom. [2] Of note, only 2 students who had scored above 90% said that they studied for more than 9 hours daily. This showed that it is better not to study for longer periods while giving up on other activities. These results were in contrast to another study, which stated that significantly higher scores were associated with more than 15 hours of study per day. [7]

Another observation made was to divide study time across short, multiple sessions of about an hour or less, instead of a massive three-hour binge. Cramming is ineffective because, after a long night of studying, you lose focus and forget most of the information by the following day. The best way to study is to constantly and repeatedly expose yourself to the study material. For increased focus and productivity, taking a break in between study sessions is important.

Another finding after the analysis revealed that the high-achieving students reported having a good concentration level even during vacations. Students might get a lot of benefits from even a little study during vacations. It is easier for them to pick it up after vacations are over. Hence, studying even during your vacations helps keep you connected to your studies.

Our results indicated another trend regarding the duration of breaks taken by the students in between their study times. It is shown that most of the students who had attained high scores (more than 80%) in their previous professional examinations took breaks that were between 30 minutes and an hour long, or even less. A lot of the students with lower academic performance reported taking breaks that were even more than 2 hours long. Short-term deviation from the task might improve concentration levels. The results indicated that the students who had taken breaks of more than 2 hours had just wasted their time, and this had probably resulted in their poor academic performance relative to the high-achieving students. According to a study conducted by Adebayo FA, academic performance seems to increase when time management skills are well-handled.[8]

Another finding of this research was that switching places between studies might benefit you. Repeated studies in the same spot could affect your memory recall adversely. At the time of the examination, the change of location might catch you off guard. A change of surroundings while you study will help in retaining the study material regardless of the environment. Most of the students who had scored highly reported changing places between studies. Our results echo similar results in a study, which stated that studying in different locations can aid in memory recall and learning.[9, 10]

Apart from general study strategies, our research also revealed that day scholars generally score higher than hostellers. This may be because hostellers have to face certain problems like feeling homesick, doing all of their work themselves, and having difficulty with time management, which affect their academic performance. The academics of day scholars and hostellers have been compared in numerous studies by several academic institutes in multiple countries, and the findings have varied. [11] Our results are comparable to a previous study which reported that day scholars to have better study habits as compared to hostellers, and thus, they score higher. [12] In contrast to this, another study was conducted, and the results of the study concluded that hostellers were academically more successful as compared to day scholars. [13] Apart from these, another study indicated that there was no significant difference when it came to the academic achievements of hostellers and day scholars.[11]

This study had some limitations. Even though this study has shown some major trends in study approaches, it is important to note that a study habit for one student may not necessarily work for another. Furthermore, the sample size was insufficient. Other than these, since only survey responses from one institution were used to generate the results, they might not be representative of medical students nationwide.

CONCLUSION

The students achieving higher academic scores studied regularly for about 2-4 hours daily, could concentrate for 1-2 hours at a stretch, preferred switching places during their studies, and took breaks that lasted around 30 minutes. Their study habits were unaffected by vacations. Both medical students and their educators and mentors must consider the results of the study's findings. These findings should ideally be utilized to direct medical students toward productive study skills early in their medical training, enabling them to perform to their greatest potential.

RECOMMENDATIONS

If faculty mentors and instructors have a greater understanding of what study strategies are most beneficial, they will ideally be better able to help students who are having difficulty and even provide students with better suggestions for changing their learning habits to ones that have been proven to be successful.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

Mushtaq H: Conceiving and designing the study, col lection, analysis, interpretation of data, Manuscript writing, Approval of Final draft

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.