

Study habits and academic performance of first year MBBS students

Sreelekha V, Yogananda Reddy Indla, Rameswari Reddy R, Rameswarudu M, Swathi A, Yamini D, Aleem Uddin

Department of Physiology, SVS Medical College, Yenugonda, Mahabubnagar, Telangana, India.
Correspondence to: Rameswarudu M, E-mail: mummadi_45@yahoo.co.in

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Abstract

Background: The goal of education is advancement in personnel, professional, social, and spiritual life.

Objective: To observe the study habits, academic performance, and the relation between these two, among the first-year MBBS students in a medical college from southern part of India.

Materials and Methods: For this study, self-assessment questionnaire developed and standardized by Palsane and Sarma was adopted. Palsane and Sarma Study Habits and Inventory (PSSHI), is a self-assessment questionnaire which is consisting of six domains and each domain is having a set of 5 statements and a total of 30 statements. Academic performance of the students was assessed with the marks they have obtained in the part completion test on hematology. Targeted population is first-year MBBS students, who were participated voluntarily in this study.

Results: The mean PSSHI scores in students with good study habits and poor habits were 227.70 ± 7.81 and 158.01 ± 7.53 ($p = 0.0001$), and the mean academic performance scores were 16.15 ± 2.11 and 8.88 ± 1.96 ($p = 0.0001$), respectively. Correlation coefficient (r) between study habits and academic performance was 0.87 and 0.98 in group I and II, respectively.

Conclusion: Students with fair study habits scored significantly more when compared with those having poor study habits, in the portion completion test.

KEY WORDS: Study habits, self-assessment, academic performance, questionnaire

Introduction

In a competitive society, the desire to excel over others or achieve a higher level than one's peer is called the achievement motivation. Understanding the background of study habits of students is very important for teachers to help them in their studies. However, earlier researches have consistently shown that varying the location of studying actually improves retention of the information. It has been shown time and again that alternating study environments improves grades, and not

the opposite. According to the theories of study habits, there are broadly two types of students; first category is of the students who study for a shorter duration, have good concentration and are able to get good scores without much effort. And the second category includes students who have a rather poor concentration, and need a lot of hard work to get good scores. With a regular study habit, you will find that the student will study at a time that is deemed normal to study that is after doing their assignments. Such students have a routine where they finish their assignments after returning from the college. Practicing study habits is not only for academic achievements but also for creative and critical thinking as well as metacognition which are needed in the development of Higher Order Thinking Skills (HOTS). Excellent medical students do not use social networking for prolonged periods of time, and they have strong motivation and enjoyment in studying.^[1] The learning style preference was not influenced by either sex or previous academic performance.^[2] Decreased nocturnal sleep time, late bedtimes, and increased daytime

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sleepiness are negatively associated with academic performance in medical students.^[3] Significant relationship between sleep disorder and academic performance was observed.^[4] Timing of sleep and wakefulness correlated more closely with academic performance than total sleep time.^[5] A great educational achievement is one design to measure knowledge, understanding to skill on a specified subjects or group of subjects. Governments seek to offer students an education that equips them with skills, knowledge, and wider perspectives so that students can participate in the social, economic, and political lives of their nations (UNESCO, 2009). There are very few studies in literature on study habits and academic performance among the medical students particularly in southern parts of India, and this forms the basis to take this study. This study aimed at;

1. To elucidate the study habits of first-year MBBS students,
2. To assess the academic performance of the students,
3. To observe the relation between the study habits and the
4. academic performance of the students.

Materials and Methods

It is a descriptive normative survey method, which is a scientific method of describing and analyzing the given parameter. Descriptive studies involve measurements, classification, analysis, comparison, and interpretation of the parameters. Study was approved by the institutional ethical committee and the subjects were recruited in the study after obtaining the written informed consent. This study included 80 first-year MBBS students of both the sex in a medical college located in a southern state of India. The subjects were divided in to two groups; group I are with good study habits and group II are with poor study habits, after assessing their study habits with Palsane and Sarma Study Habits and Inventory (PSSHI) tool. Group I subjects are with total PSSHI scores >210 and group II subjects are with <210 scores. Students who were not interested in participating the study or who were absent on the particular day were excluded from the study. Self-assessment skills tool, developed and standardized by Palsane and Sarma, was used in this study for assessing the study habits of the first-year medical students. Self-assessment skills tool consists of six domains, namely: reading text books, taking notes, studying, memorizing, preparing for tests, and managing your time. Each domain is having 5 statements and total of 30 statements in the tool. Options given for each statement are rarely, sometimes, and often; and the respective scores allotted for the options are 0, 5, and 10. Each domain is having a range of scores from 0 to 50 and total score of the tool ranges from 0 to 300. If the obtained results were in-between 35 and 50 in each domain, or >210 in total, their study habits are fairly good and if the scores are <35 in each domain or <210 in total that means students should improve their habits. Students were segregated in the lecture gallery prior to the distribution of the questionnaire to overcome any bias in answering the questionnaire. Necessary instructions were given prior to the

administration of the test and the students were given enough time to mark their responses against each questionnaire. PSSHI is described in Table 1.

Academic performance of the students was assessed based on the marks they have scored in the part completion test, conducted on hematology. Maximum marks were 25 and the scores >12.5 (50%) are considered as good academic performance and scores <12.5 are with poor academic performance. To overcome the bias while evaluating the answer sheets, evaluation is done by four qualified examiners [Table 1].

Statistical Analysis

Analysis of data was done with SPSS statistic version 13 software. Student's *t*-test was calculated and it is considered significant if the obtained *p*-value is <0.05.

Result

[Table 2, Figures 1 and 2].

Discussion

Table 1 shows the 6 domains and 30 statements of PSSHI tool and Table 2 reflects the mean scores of study habits and the academic performances of both the groups. Group I subjects are having fairly good study habits and group II subjects are with poor study habits based on PSSHI scores. Academic performance of the group I subjects in part completion test on hematology is significantly high when compared with that of group II subjects. The study habits and academic performance among the two groups are positively correlated. The correlation coefficient (*r*) for group I is 0.87 and the *p*-value is <0.0001, which is highly significant statistically, that means students with fair study habits scored highly in the part completion test. The correlation coefficient (*r*) for group II is 0.98 and the *p*-value is <0.0001, which is also highly significant statistically, that means students with poor study habits secured less marks in the part completion test.

Based on the obtained results in this study, we can say that fairly good study habits will result in good academic performances. Encouraging the students to procure good study habits will automatically improve their academic performance. Teaching faculty, management, and the parents of the students should focus concretely on the study habits of each student rather being around the student for how many hours they are studying and conducting the extra study hours without proper preparation. Smart work with good study habits will yield good academic performances rather hard work, like increasing the number of teaching, studying hours and conducting weekly, monthly, and quarterly tests. The findings in this study, that is, good study habits results in good academic performance which is in line with the earlier research.^[6] Previous studies also confirm that good academic performances can be ascribed to the motivation.^[7-9] Positive motivation results in higher task performance.^[10]

Table 1: Study skills assessment questionnaire

| Reading text books | | Rarely | Sometimes | Often |
|---------------------|--------------------------------------------------------------------------------------------------------|--------|-----------|-------|
| 1 | I browse the headings, pictures, charts, questions and summaries before I start reading a chapter. | | | |
| 2 | I make questions from a chapter before, during, and after reading it. | | | |
| 3 | I try to get the meaning of new words as I see them for the first time. | | | |
| 4 | I look for familiar concepts as well as ideas that spark my interest as I read. | | | |
| 5 | I look for the main ideas as I read. | | | |
| Taking notes | | Rarely | Sometimes | Often |
| 6 | I take notes as I read my text books. | | | |
| 7 | I take notes during class lectures. | | | |
| 8 | I rework, rewrite, or type up my notes. | | | |
| 9 | I compare my notes with a classmate. | | | |
| 10 | I try to organize main ideas and details into a meaningful method. | | | |
| Studying | | Rarely | Sometimes | Often |
| 11 | I study where it is quiet and has few distractions. | | | |
| 12 | I study for a length of time then take a short break before returning to studying. | | | |
| 13 | I have all my supplies handy when I study, such as pens, paper, and calculator. | | | |
| 14 | I set study goals, such as the number of problems I will do or pages I will read. | | | |
| 15 | I study at least two hours for every hour I am in class each week. | | | |
| Memorizing | | Rarely | Sometimes | Often |
| 16 | I try to study during my personal peak energy time to increase my concentration level. | | | |
| 17 | I quiz myself over material that could appear on future exams and quizzes. | | | |
| 18 | I say difficult concepts out loud in order to understand them better. | | | |
| 19 | I summarize my notes into my own words, for better understanding. | | | |
| 20 | I try to create associations between new material I am trying to learn and information I already know. | | | |
| Preparing for tests | | Rarely | Sometimes | Often |
| 21 | I study with a classmate or group. | | | |
| 22 | When I don't understand something, I get help from tutors, classmates, and my instructors. | | | |
| 23 | I do all homework assignments and turn them in on time. | | | |
| 24 | I can easily identify what I have learned and what I have not yet learned before I take a test. | | | |
| 25 | I anticipate what possible questions may be asked on my tests and make sure I know the answers. | | | |
| Managing your time | | Rarely | Sometimes | Often |
| 26 | I use a planner (or other method) to write down upcoming academic and personal activities. | | | |
| 27 | I use a "to do" list to keep track of completing my academic and personal activities. | | | |
| 28 | I start studying for quizzes and tests at least several days before I take them. | | | |
| 29 | I start papers and projects as soon as they are assigned. | | | |
| 30 | I have enough time for college and fun. | | | |

Table 2: Study skills assessment scores and academic performance (mean with SD)

| Parameter | Group I | Group II | p-value |
|-----------------------------|---------------|---------------|---------|
| PSSHI-scores | 227.70 ± 7.81 | 158.01 ± 7.53 | 0.0001* |
| Part completion test-scores | 16.15 ± 2.11 | 8.88 ± 1.96 | 0.0001* |

*Indicates p-value <0.05, which is significant.

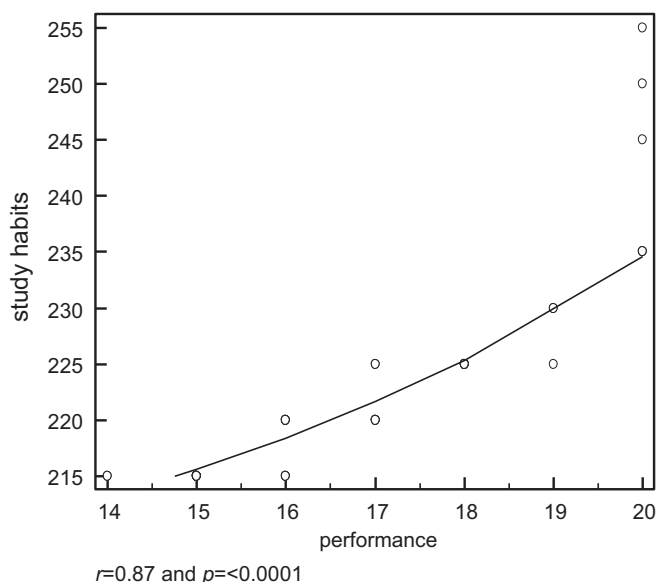


Figure 1: Correlation between study habits and academic performance in Group I.

This study advises all the students to have good study habits. Cohort studies with larger sample size and in different targeted population are further helpful.

Students with fairly good study habits are performed well in the part completion test.

Conclusion

Students with fair study habits scored significantly more when compared with those having poor study habits in the portion completion test.

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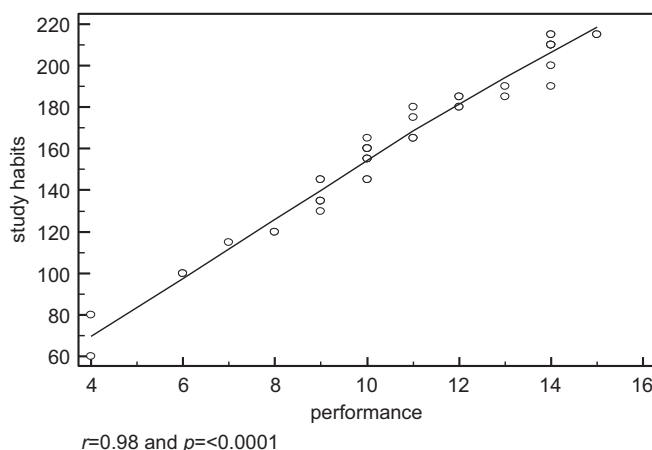


Figure 2: Correlation between study habits and academic performance in Group II.

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