

Original Research Article

Study habits of undergraduate medical students

Padmavathi V. Dyavarishetty*, Asha A. Pol

Department of Community Medicine, K. J. Somaiya Medical and Research Centre, Mumbai, Maharashtra, India

Received: 15 May 2025

Revised: 05 July 2025

Accepted: 08 July 2025

*Correspondence:

Dr. Padmavathi V. Dyavarishetty,

E-mail: padmavathi@somaiya.edu

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Academic performance of medical students largely depends on their study habits. Students adopt different modalities of learning. Teachers need to know what is the current pattern of learning so as to ensure an effective and useful teaching learning environment. The aim of the present study was to understand the various learning methods adopted by undergraduate medical students in the city of Mumbai.

Methods: A descriptive cross-sectional study amongst 111 undergraduate medical students. Google form was sent to students of MBBS phase 1, 2, 3 and 4 for voluntary anonymous participation. The questionnaire was validated by a faculty trained in medical education technology. The questionnaire elicited information on study hours, method used for studying, regularity of studying and time management skills.

Results: A total of 111 students participated in the study. 17.1% of students responded that they studied only when examinations were around. Students studied from standard textbooks (80%), 60% made notes, 76% watched video lectures, 39% listened to audio lectures and 33% referred to question banks and read only relevant topics. To assess their own understanding, 48% practiced MCQs, 46% solved previous papers and 49% taught their friends. When a concept was not understood, only 30% discussed it with their teachers. 14% students had the habit of reading the topic after attending lectures. 33% had a study time table.

Conclusions: Students need to familiarize themselves with the various study techniques, understand their own learning preferences and adopt the proven scientific techniques of studying and time management skills.

Keywords: MBBS Students, Mumbai, Study habits

INTRODUCTION

Study habit is an action such as reading, taking notes, holding study groups which the students perform regularly and habitually in order to accomplish the task of learning.¹

Securing a medical seat in India is very competitive. Students in the medical field are already into the habit of rigorously studying for extended periods having to compete in the entrance examination for admission to the MBBS course. Even then, a vast curriculum, long hours of teaching, multiple subjects and a focus on acquiring skills, makes even the best of students struggle and falter

after entering medicine. Research has shown that study habits do matter in academic performance. A study conducted in Saudi Arabia by Abdulrahman showed considerable correlation between study habits and academic performance.²

A study by Rajendran stated that the medical students are talented and fare better in memory and concentration skills, but there is a glaring lack of attitudinal skills like notes taking, time management, test preparation and textbook reading skills.³

A study by Liew in Kuala Lumpur revealed that a vast majority of the students (81.9%) had a unimodal learning

style, while the remaining (18.1%) used a multimodal learning style.⁴ A study in India by Kumar found that students had multinodal modality of learning.⁵ Study by Rajendran in India showed that students lack note taking skills, time management skills, and reading skills.³

Every student has a different learning style. It has been shown that possessing a scheduled plan, profound study along with concentration can improve learning in medical students.⁶ Time management skills will teach students to utilize and prioritize their time for better academic performance.

Dissemination of effective learning strategies will in turn benefit average and low performers, while in the long term, this will help in building their self-confidence.⁷

The teachers can ensure an effective teaching learning environment that meets the student's needs when they are aware of their student's learning and study habits. Teachers can provide resources to the students according to their hearing styles.

The aim of the present study was to understand the various learning methods adopted by undergraduate medical students in the city of Mumbai. The objectives of the study were to assess the pattern of studying (hours and regularity), methods and types of resources used for learning, methods used for self-evaluation, scheduling pattern of learning hours and suggestions for improving teaching learning experience.

METHODS

A descriptive cross-sectional study was conducted in a private medical college of a metropolitan city. The study population comprised all undergraduate medical students of the institute studying in phase 1,2,3 and 4. Inclusion criteria for the study was undergraduate medical students of phase 1 to 4, who voluntarily completed the questionnaire. Interns were excluded from the study. Sample size was calculated as 96 using the formula of Z^2pq/l^2 where:

p = considered as 50% of students adopt regular pattern of studying

$q = 100 - p$

l = allowable error at 10%

An anonymous questionnaire prepared as google form was sent to undergraduate medical students on WhatsApp group. The questionnaire prepared in English had a mix of closed ended and open-ended questions. A respondent could submit the response only once. Identifying information was not asked from the students so as to allow free responses. Once the desired number of responses, i.e. sample size achieved, the google form was disabled for further data collection. The duration of the

study was two months from August 2023 to September 2023.

After obtaining institutional ethics committee approval, data was collected on habits like frequency of study, the hours of study and the resources used for studying. Questions were asked on how they test their understanding, whom they approach when they have queries, whether they read a topic prior to attending the class, and after attending the class, awareness of their own learning style and technique. Questions on time management included whether they make a time table for studying, what they do to avoid distractions or interruptions while studying. Students' perception on the benefits of attending the lecture/practical was also elicited through the questionnaire. The questionnaire was validated by a faculty trained in MET.

This being a descriptive cross-sectional study, only descriptive analysis of the data has been done with frequency count with percentages. The open-ended questions on suggestion for improving learning experience at the institute were analyzed and presented under thematic areas like attendance, assessment, teaching methods, reading material etc.

RESULTS

Profile of study participants

A total of 111 students participated in the study - MBBS phase 1- 37 (33.4%); MBBS phase 2- 38 (34.2%); MBBS phase 3- 18 (16.2%); MBBS phase 4- 18 (16.2%). Sex-wise distribution of the participant was 35.1% (39) males and 62.2% (69) females while one was transgender and two chose not to respond to the question.

Amongst the 111 students, 39.6% (44) had relocated to Mumbai for studies, of whom 33 were staying in hostel, 6 had rented an apartment, while 5 were residing in their second home in Mumbai with their parents or siblings.

Students (60.4%) reported that they were familiar with their style of learning and had tried to gather information on the various techniques of learning.

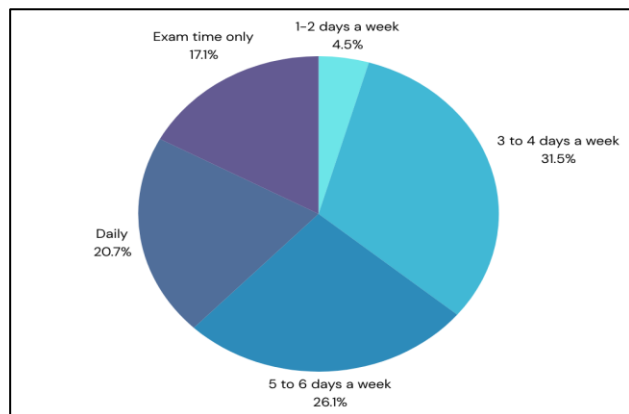
Pattern of Studying

Only 20.7% said they studied daily while 17.1% of students responded that they studied only when examinations were around (Figure 1).

On the days they studied 71.2% studied for a duration of 3-6 hours, while 7.2% studied 7 or more hours and another 19.8% reported studying 1 to 2 hours. Amongst the 8 students who were studying for 7 or more hours, 4 of them studied extensive hours during exams. Of the 111 students, 23 studied 3 to 6 hours on 3 to 4 days in a week while 41 students studied 3 to 6 hours at least 5 days a week (Table 1).

Table 1: Frequency and hours of study.

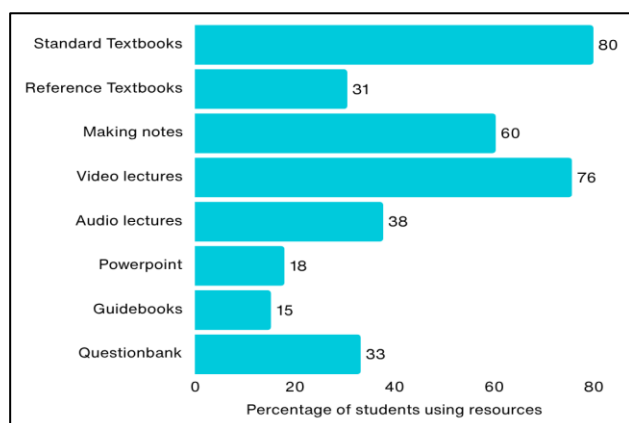
Frequency of studying	Number of hours of study on the day of studying				Total
	< 2 hours	3 to 4 hours	5 to 6 hours	≥7 hours	
1-2 days a week	1	2	1	1	5
3 to 4 days a week	12	22	1		35
5 to 6 days a week	4	22	3		29
Every day	4	12	4	3	23
Only when exams are around	3	4	8	4	19
Total	24	62	17	8	111

**Figure 1: Frequency of studying in a week.**

Only 1.8% students said that they read the topic prior to attending the class while 45% said that they sometimes read before attending the lecture. After attending lectures, 13.5 students had the habit of reading the topic while 54.1% of the students said that they sometimes read after attending the class.

Methods and types of resources used for learning

Students mainly studied from standard textbooks (80.2%) while 30.6% also referred to other text books. Other resources referred to were video lectures and audio lectures. About 60.4% made notes and 33.3% read only relevant topics by referring to question banks (Figure 2).

**Figure 2: Resources used for learning.**

When a concept was not understood, 83.8% (93) searched for online resources, 79.3% (88) discussed it with friends while only 29.7% felt comfortable to discuss it with their teachers. When faced with difficulty in comprehending the topic, 23.4% students just tried to memorize it while 16.2% just skipped the topic.

Methods used for self-evaluation

To assess their own understanding, 47.7% practiced multiple choice questions (MCQs), 45.9% solved previous papers and 48.6% taught their friends.

Time management- scheduling of learning hours

Thirty seven (33.3%) students were in the habit of making timetable. Another 30.6% (34) of the students sometimes made a time table for studying. Proportion of students who ensured that there were no distractions was 64% (71).

Suggestions for improving teaching learning experience

Attending lectures was perceived as beneficial by 50.5% (56) of the students. However, 44.1% (49) felt that attending classes was somewhat useful and 5.4% (6) students felt attending lectures and practicals are not useful.

Students suggested that the college should give time for self-study, conduct more revision classes and remove the mandate to attend classes. Teaching should focus on concepts, simplifying concepts, making it an interactive session, practically oriented, case-based teaching and sharing of ppts with students. Students also opined that there should be less journal writing. Students also felt that assessments should be conducted in the form of MCQs, applied MCQS, case-based scenario questions, and more mini-tests should be conducted, maybe at the end of each chapter.

DISCUSSION

Medical students need to understand that study habits are essential for academic success. Since academic performance is a highly prized parameter for academic excellence, Focused efforts are required in understanding

the effective learning strategies that would help in enhancing it.³

About four-fifth of the students were in the habit of studying 3 to 7 days in a week. Almost 50% of the students were studying at least for 3 to 4 hours on a daily basis. One-fifth of students chose to study only during examination time or occasionally. Such a practice of occasionally studying seems inappropriate considering the vastness of the syllabus and academic excellence required in the field of medicine. A study by Abdulrahman et al and Mushtaq et al showed that high performing students studied on an average 2-4 hours daily.^{2,8}

Apart from reading the standard recommended textbooks, students also referred to other textbooks. A huge proportion of students (75%) also said that they referred to online videos and audio as a learning tool. In the study by Abdulrahman et al, 76% students referred to online videos, a finding similar to the present study.²

In the present study, it was found that also three-fifth of the students had the habit of making notes. A study by Nagraj et al found that note-taking skills was significantly associated with academic performance.⁹ The study by Nagraj et al found taking notes while reading, rewriting lecture notes and reviewing lecture notes were associated with good performance.⁹

Almost one-third of students referred to question banks to identify topic for study whereas the study by Abdulrahman et al found 75% referred to previous exam's papers.² A study by Rajendran et al stated that the medical students are talented and fare better in memory and concentration skills, but there is a glaring lack of attitudinal skills like notes taking, time management, test preparation and textbook reading skills.³

Online resources were most searched for when a concept was not understood, followed by discussion with friends. Surprisingly only 30% of students said that they discussed it with their teachers.

Students practiced multiple choice questions, previous questions papers and also taught their friends as a method to gauge their own understanding. A study by Abdulrahman et al found that peer tutoring was adopted by 26%, whereas in our present study it was found to be 49%.²

Many of the students (60%) were acquainted with various techniques of learning. One third of the students were in the habit of making a timetable and 64% of the students ensured that there were no distractions while studying. A study by Nourian showed that time management skills were poor in medical students.¹⁰

Half of the students reported that attending lectures was useful. Teaching should focus on concepts, making it an

interactive session without a ppt as opined by students of our study. The study by Rajendran et al found that the only learning strategy or the study habit that showed significant difference across the high, medium and low achievers was the ability to pay attention in the class.³ This emphasizes the fact that students not only need to attend classes and pay attention but as teachers we need to be innovative in our methods of teaching and engaging the class actively.

The study reports only the findings of the students who had access to the WhatsApp group and were studying in a private medical college of a metropolitan city. The study habits of the slow and advanced learner vary significantly which has not been captured in the present study.

CONCLUSION

The medical students need to acquaint themselves with the proven strategies of learning. They need to identify their own learning style, and make an active effort to learn the art of studying, which is based on scientific evidence. As teachers, we need to familiarise the students with the various studying techniques, and provide access to resources to support effective and useful learning.

ACKNOWLEDGEMENTS

We would like to thank students who participated in the study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Jato M, Ogunniyi SO, Olubiyo PO. Study habits, use of school libraries and students' academic performance in selected secondary schools in Ondo West Local Government Area of Ondo State. *Int J Lib Inform Sci*. 2014;6(4):57-64.
2. Bin Abdulrahman KA, Khalaf AM, Bin Abbas FB, Alanazi OT. Study habits of highly effective medical students. *Adv Med Educ Pract*. 2021;8(12):627-33.
3. Rajendran R, Asokan S, Thangaraj SS. An analysis on the study habits among undergraduate medical students. *Int J Med Res Rev*. 2019;7(5):404-10.
4. Liew SC, Sidhu J, Barua A. The relationship between learning preferences (styles and approaches) and learning outcomes among pre-clinical undergraduate medical students. *BMC Med Educ*. 2015;15(44):1-7.
5. Prithishkumar IJ, Michael SA. Understanding your student: using the VARK model. *J Postgrad Med*. 2014;60(2):183-6.

6. Reid WA, Duvall E, Evans P. Can we influence medical students' approaches to learning? *Med Teach*. 2005;27(5):401-7.
7. Joshi AS, Ganjiwale JD, Varma J, Singh P, Modi JN, Singh T. Qualitative assessment of learning strategies among medical students using focus group discussions and in-depth interviews. *Int J Appl Basic Med Res*. 2017;7(1):S33-7.
8. Mushtaq H. Exploring study habits of medical students in an undergraduate medical school in Peshawar: a descriptive cross-sectional study. *J Med Sci*. 2022;30(3):207-11.
9. Nagaraj C, Pradeep BS. Why do medical students under-perform? A cross-sectional study from Kempe Gowda Institute of Medical Sciences, Bangalore. *J Dr. NTR Univ Health Sci*. 2014;3(2):92-6.
10. Nourian A, Mousavinasab S, Fehri A, Mohammadzadeh A, Mohammadi J. Evaluation of study skills and habits in medical students. *South East Asian J Med Educ*. 2008;2(1):61-4.

Cite this article as: Dyavarishetty PV, Pol AA. Study habits of undergraduate medical students. *Int J Community Med Public Health* 2025;12:3609-13.