

Assessment of Study Skills of Medical Undergraduates in a Medical College in South India

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Abstract:-

➤ *Introduction:*

Proper education of medical students is of vital importance as the knowledge they acquire deals with saving the lives of human beings. All kinds of efforts must be made to groom them properly so that they can provide the best treatment to the society. Analysis of their strong and weak areas plays a major role in such a matter.

➤ *Aim:*

Assessment of study skills of MBBS students.

➤ *Objectives :*

Assessment of Textbook Reading Skills, Note Taking Skills, Memory Skills, Test Preparation Skills, Concentration Skills and Time Management Skills of Medical Undergraduates.

➤ *Material and Methods:*

It is a descriptive cross sectional study. Denis Congo Study Skills Inventory Questionnaire was distributed to medical undergraduates of Saveetha Medical College and Hospital who were willing to participate in the study. A total of 400 questionnaires were collected from across all four years of MBBS. The data was analysed using SPSS software and ANOVA and student t-test was applied. p value of less than 0.05 was taken as statistically significant.

➤ *Results:*

The study revealed that the students had problems in Note Taking Skills (14.83 ± 4.80 , p value=0.000) and Test preparation skills (38.08 ± 8.28 , p value=0.022). It appears that students had better status in Textbook Reading (26.14 ± 4.85 , p value=0.070), Memory (29.97 ± 6.16 , p value=0.478), Concentration (33.74 ± 6.11 , p value=0.628) and Time Management (16.77 ± 5.54 , p value=0.313) as compared to other areas. Females were found to be better note takers than males in comparison.

➤ *Conclusion:*

Developing all the study skills of students is an essential stepping stone to unleash the full potential of the students. Workshops should be conducted to teach the students about how to learn efficiently, before exposing them to the subjects.

Keywords:- Medical Students, Study Skills, Denis Congo Study Skills Inventory, MBBS Students.

I. INTRODUCTION:

Proper education of medical students is of vital importance as the knowledge they acquire deals with saving the lives of human beings. Therefore all kinds of efforts must be made to groom them properly so that they can provide the best treatment to the society. Analysis of their strong and weak areas plays a major role in such a matter. Assessment of their study skills is one way to approach the matter. Different students have different levels of development of study skills, some have good reading skills, some have good memory, and some can predict important questions to be covered for tests. These differences lead to variations in the academic achievements of students. Some researches indicate that in spite of good resources and teachers available to students, their performance seems to be declining.^[1] This study was conducted in Saveetha Medical College and Hospital to assess the study skills of medical undergraduates and determine the areas in which the students need help.

II. MATERIAL AND METHODS:

This descriptive cross sectional study was conducted among the medical undergraduates of Saveetha Medical College and Hospital between January and March 2019. The study was started only after obtaining approval from the Institutional Ethics Committee.

A questionnaire containing questions about general details of the student, year of study, residence (hostel or day scholars) and Denis Congo Study Skills Inventory (DCSSI) was used to collect data.

The questionnaire was distributed simultaneously to all the students of a particular batch after obtaining permission from faculties at the end of a lecture.

Those who were willing to participate were asked to fill out the questionnaire and return it on the same day. The process was repeated across all four years of MBBS.

Only the questionnaires which were filled out completely and correctly were included in the study. A total of 400 questionnaires were collected from across all four years of MBBS. Interns and students of other paramedical courses were not included in the study.

The DCSSI is a validated questionnaire for assessing the study skills of students. It mainly focuses on assessment of Textbook Reading Skills, Note Taking Skills, Memory Skills, Test Preparation Skills, Concentration Skills and Time Management Skills. A set of 5 to 13 questions were used to assess each of these skills using a five point Likert scale.

The responses were recorded as:

- Almost always = 5
- More than half of the time = 4
- About half the time = 3
- Less than half the time = 2
- Almost never = 1

Microsoft Excel 2010 software database was used to store the data. The data was analysed using SPSS software and ANOVA and student t-test was applied. Association between gender and study skills and association between residence (hostel or day scholar) was also done. p value of less than 0.05 was taken as statistically significant.

III. RESULT

Out of the 400 students whose questionnaires were included in the study, 176 (44%) were males and 224 (56%) were females. 100 (25%) students questionnaire was included from each year of study making a total of 400 questionnaires (100%). 197 (49.3%) students were hostellers and 203(50.7%) students were day scholars.

Variable	First Year Mean±SD	Second Year Mean±SD	Third Year Mean±SD	Fourth Year Mean±SD	p Value
Textbook Reading Skills	25.53±5.01	26.50±5.33	27.02±3.94	25.52±4.92	0.070
Note Taking Skills	16.58±4.56	15.12±5.00	13.70±4.55	13.62±4.60	0.000*
Memory Skills	30.75±6.59	29.53±6.68	30.03±5.66	29.59±5.67	0.478
Test Preparation Skills	39.95±8.09	37.96±9.09	38.10±7.39	36.33±8.18	0.022*
Concentration Skills	34.10±6.11	33.09±6.44	33.72±5.93	34.06±6.01	0.628
Time Management Skills	16.76±5.16	17.54±6.01	16.74±5.50	16.06±5.47	0.313

Table 1:- Comparison of Study skills and Year of Study

*p value < 0.05

Variable	Mean ± SD
Textbook Reading Skills	26.14±4.85
Note Taking Skills	14.83±4.80
Memory Skills	29.97±6.16
Test Preparation Skills	38.08±8.28
Concentration Skills	33.74±6.11
Time Management Skills	16.77±5.54

Table 2:- In general

When the study skills were assessed according to year of study, it was found that the mean score of fourth years for note taking and test preparation was lower than that of other years and this difference was significant (p<0.05). It seems that students were taking notes and preparing for tests properly during the beginning of the course and seem to lose the habit as years progress. It may be due to vastness of the subjects and influence of seniors, cultural programmes and other extra-curricular activities occurring during the course.

It was found that most of the students don't have the habit of taking notes during lectures or as they read textbook assignments. Even those who do take notes don't have the habit of reviewing them or comparing their notes with other students to check whether they missed anything, very few students had the habit of rewriting their scribbled notes into a proper format.

It was discovered that most of the students don't start preparing for the test till the last week before the exam, and then they cram as much as possible at the last moment. Many of them do not keep up to date on assignments and homework. Only few students review notes for tests regularly and read assigned material before entering the class.

No significant difference was found in other study skills.

Variable	Male (n=176) Mean±SD	Female (n=224) Mean±SD	p Value
Textbook Reading Skills	25.86±4.96	26.35±4.77	0.319
Note Taking Skills	14.22±5.15	15.30±4.46	0.026*
Memory Skills	29.59±6.35	30.27±6.01	0.270
Test Preparation Skills	38.26±9.21	37.94±7.49	0.697
Concentration Skills	33.52±6.70	33.91±5.62	0.525
Time Management Skills	16.76±5.86	16.78±5.30	0.965

Table 3:- Comparison of Study skills and Gender

*p value < 0.05

When the study skills were assessed according to gender, it was found that the mean score of note taking of males was lower than females and this difference was

significant ($p < 0.05$). No significant difference was found between males and females in other study skills.

Variable	Hosteller (n=197) Mean±SD	Day Scholar (n=203) Mean±SD	p Value
Textbook Reading Skills	25.80±4.92	26.46±4.77	0.174
Note Taking Skills	15.02±4.42	14.64±5.16	0.424
Memory Skills	29.44±5.92	30.49±6.36	0.089
Test Preparation Skills	38.22±8.30	37.95±8.28	0.743
Concentration Skills	33.31±5.73	34.15±6.45	0.169
Time Management Skills	16.84±5.31	16.70±5.78	0.811

Table 4:- Comparison of Study skills and Residence (Hosteller or Day Scholar)

No significant difference was found in Comparison of study skills and place of living.

IV. DISCUSSION

The main focus of this research was to assess the study skills of medical undergraduates. From the results, it was evident that note taking and test preparation are the areas where the students are facing problems. Similar results were reported by Nourian^[2], Stark^[3], Nagaraj and Pradeep^[4], Madhavi^[5] in their assessment of study skills and habits of students.

It appears that students had better status in Textbook Reading, Memory, Concentration and Time Management when compared to Note taking and Test Preparation in Saveetha Medical College and Hospital.

From the results, we found that many students do not take notes during lecture and while reading books and they do not have the habit of reviewing and comparing notes with other students for accuracy and completion. The root cause for all these problems is the fact that the portions are very vast, students are not able to transcribe verbal lectures efficiently and stop taking notes halfway and give up, the students find it difficult to determine what all facts are important while reading books to take down notes and end up breezing through the whole thing like reading a newspaper and have difficulty in remembering what they have read. Girls were found to be better note takers than boys in comparison, but even among them, they don't have the habit

of regularly reviewing their notes before next class. Most students know that the notes which they take are incomplete but they don't make the effort to compare them with that of their classmates due to difficulty in understanding others handwriting.

Students can take better notes if they follow a good note taking system like the Cornell method. An alternate solution is to use mind map methods to take notes during lectures and textbook reading as the main aim to grasp the general idea and support them with facts rather than noting down the whole thing.^[6] Proper note taking has many benefits – it promotes active learning, improves focus and attention to detail, boosts comprehension and retention, increases attention span and teaches us how to prioritize and organize data efficiently.

In the aspect of test preparation skills, the students were found to be severely lacking, many students do not start studying from exam point of view till the last week before the exams and start cramming at the last moment, most of them submit their homework and assignment after the deadline, only very few students participate in inter college quizzes and competitions seriously.

Development of test preparation skill is very important as the main focus of the exams is to determine if the students have grasped the general ideas of topics and if students are not able to reproduce what they have learnt properly, then it's the same as if they have not prepared for it at all. Students should make a habit of studying with their classmate or

group, in this way they will have the opportunity to ask for help if they don't understand anything, they can get an idea of how others understand the subject and consolidate their own learning. Students should pay special attention to the assignment topics and home works and prioritize them first as they are most likely to be asked in tests. It will be beneficial for the students if they read the assigned materials and notes before and after the class as it will improve their understanding of the subjects. They should begin to study from exam point of view from the first week the material is assigned or covered in a lecture, in this way they have plenty of time to keep on revising on later dates. Spaced repetition over a period of time improves active recall and retaining information for long term. Students should strive to improve their test preparation skills as soon as possible to showcase their academic achievements in undergraduate level and at the same time prepare the foundation for post graduate entrance examinations.

The students should take care of their health in addition to learning. They should eat well balanced foods, exercise regularly, have a normal sleep pattern, a good social interaction with their peer, faculty and family to reduce stress, depression, burn-out and improve their academic achievements.

Researches indicate that students can be mentored about the importance of utilizing study skills and that their way of learning and applying their knowledge can be changed.^{[7][8]}

V. CONCLUSION

Improving the note taking skills and test preparation skills will enhance the academic performance of the students in our college. Developing all the study skills of students is an essential stepping stone to unleash the full potential of the students. Workshops should be conducted to teach the students about how to learn efficiently, before exposing them to the subjects.

REFERENCES

- [1]. Mandal A, Ghosh A, Sengupta G, Bera T, Das N, Mukherjee S. Factors affecting the performance of undergraduate medical students: A perspective. *Indian J Community Med* 2012;37:126-9.
- [2]. Nourian A, Mousavinasab SN, Fehri A, Mohammadzadeh A, Mohammadi J. Evaluation of study skills and habits in medical students. *S East Asian J Med Educ* 2008;2-1:61-4.
- [3]. Stark, Mary C. (2008) Retention, Bonding, and academic Achievements: Effectiveness of the college's seminar in promoting college success, Ninth Annual National Conference on Retention, New York.
- [4]. Nagaraj C, Pradeep BS. Why do medical students under-perform? A cross-sectional study from Kempe Gowda Institute of Medical Sciences, Bangalore. *J NTR Univ Health Sci* 2014;3:92-6.
- [5]. Madhavi S, Naidu AS, Krishnaveni A, Kiran P. Study Skills assessment among Medical Undergraduates – Where they stand? *IOSR-JDMS*. 2014;13(10):16-9.
- [6]. [6]. Abdel-Hamid GA. Mind maps as a new teaching strategy for medical students. *MOJ Anat Physiol*. 2017;3(3):76–77.
- [7]. [7]. Reid WA, Duvall E, Evans P. (2005) Can we influence medical students' approaches to learning? *Medical Teacher*. 2005;27(5):401-7.
- [8]. [8]. Frank PM. The effects of a study skills workshop upon study techniques, study organization and study motivation for resident freshmen a practicum presented to Nova University in partial fulfillment of the requirements for Degree of Doctor of Education. 1977.