ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 7, Issue – 4, July – 2022 , Page No. : 249 - 254

To assess the effectiveness of Self Directed Learning in Pharmacology among second professional MBBS students: A questionnaire based study

[1]Shamiya Sadiq, Assistant Professor, Department of Pharmacology and Therapeutics, Govt. Medical College, Jammu
[2]Dr. Neelam Rani, Demonstrator, Department of Pharmacology and Therapeutics, Govt. Medical College, Jammu
[3]Himani Gupta, Department of Pharmacology and Therapeutics, Govt. Medical College, Jammu
[4]Seema Gupta, Professor and Head, Department of Pharmacology and Therapeutics, Govt. Medical College, Jammu
Corresponding Author: Dr. Neelam Rani, Demonstrator, Department of Pharmacology and Therapeutics, Govt. Medical College, Jammu

Citation this Article: Shamiya Sadiq, Dr. Neelam Rani, Himani Gupta, Seema Gupta "To assess the effectiveness of Self Directed Learning in Pharmacology among second professional MBBS students: A questionnaire based study", IJMSIR- July - 2022, Vol – 7, Issue - 4, P. No. 249 – 254.
Type of Publication: Original Research Article
Conflicts of Interest: Nil

Abstract

The current study was undertaken to assess the effectiveness of self directed learning in pharmacology students. In the era of COVID-19, the methods of teaching have changed drastically from physical classes to virtual classes. Students have to change their perspective for newer modalities of teaching and learning. They were supposed to come out of their comfort zone of studying. Meanwhile the new CBME curriculum insisted upon adoption of other newer learning modalities like SDL. Students were explained about SDL and a questionnaire pertaining to hypertension with diabetes and hypertension with bronchial asthma was given to them. Results were assessed as high, mild and low depending on their score. Response to SDL Instrument (SDLI) scale was recorded on Likert's scale. Observations suggested that students were comfortably adopting the SDL effectively and many were in opinion of having more SDL sessions.

Keywords: SDL, Learning, Effectiveness, Pharmacology, Students, Questionnaire, CBME, Curriculum

Introduction

Self Directed Learning (SDL) or Auto didacticism has taken an upward threshold in medical curriculum as a point of primary focus on acquiring knowledge by one's own self[1] . Nowadays, SDL has become a preferred tool to prepare students for a life-long learning process and primarily a higher order cognitive skill to increase self-efficacy of studies [2,3]. SDL is learning in which the conceptualization, design, conduct and evaluation of a learning project is directed by the students themselves[4].SDL is a teaching-learning method which is designed to emphasize these skills and to increase the retention of facts and their recall in the clinical situation. The SDL method came into existence keeping in mind the problem-solving skills of physicians and principles of educational psychology and is now being employed by several medical schools and serves as an antidote to the

many educational abuses seen in more traditional approaches [5].

Despite all this, the medical education system in India is sceptical in adapting this change in Pedagogy. SDL is an educational concept that has been receiving increasing attention since the implementation of competency based medical education (CBME)[6]. A prefixed dedicated time has been allotted to SDL in CBME curriculum in each speciality and besides all pros and cons the implementation of SDL has become mandatory.

Objective

The current study was undertaken to assess the efficacy of Self Directed Learning among medical students and their perspective towards it.

Methods

A cross-sectional observational study was conducted among 180 second professional MBBS students in a tertiary care teaching hospital of North India GMC Jammu after IEC approval. A brief description about the study details was explained to the participants. Confidentiality and anonymity of the participants were maintained.

The demographic detail and data in the questionnaire pertaining to SDL on hypertension were collected and analyzed in a specified manner. The response to SDL instrument (SDLI) was evaluated and statements were rated on a 5-point Likert scale rating: “strongly disagree”, “disagree”, “neutral”, “agree”, “strongly agree”. Time allotted to complete the questionnaire in all respects was twenty minutes.

The material for SDL was prepared by framing up three short and specific case sheets of hypertension associated with different conditions. Each case sheet was followed by 3-4 questions answers for which could be found by the students from the standard textbooks.

Out of 180 students 153 were present while 27 were absent. Students were divided into three groups A, B and C which were further subdivided into groups of twenty each. A tutor was allotted to each group.

During the SDL session students were asked to go through each case independently and were encouraged to find answers for each question. The session lasted for 45 minutes which was immediately followed by a test.

Assessment

The test involved five short textual questions which were to be answered within ten minutes, having a maximum of ten marks. The activity covered the hypertension with diabetes and bronchial asthma. This topic was already covered in their theory lectures. The answer sheets were collected and evaluated manually with no negative marking. The scores obtained by students were further grouped into high (score >7), medium (score 4-6.5) and low (score <4).

Statistical Analysis

The responses obtained were tabulated, recorded and data was presented in number (n) and percent (%).

Results

A total of 167 students completed the questionnaire related to Self Directed Learning Instrument (SDLI) in all respects. Thus, the response rate was 92.7%. While for test activity pertaining to SDL only 153 students were present and 27 students were absent. Response rate remained 85%.

Discussion

The present study evaluated the efficacy of SDL among medical students. SDL is a student centered approach which will help students to have better understanding of a topic through their own experience. In our study 48.5% students agree that they were always keen to learn things in their own way and 52.1% students agreed that they

find SDL as a basic tool for overall improvement and future carrier. The recent CBME based curriculum also laid stress upon shift of Indian Medical Education from teacher centred learning to student centred learning. SDL will help students to become a better life long learners (7).

During the COVID-19 pandemic there was paradigam shift in the teaching of students from classroom to online mode. The main onus of learning was on students (3) . In this pandemic SDL was the one of the tools of learning which helped students in the continous process of learning. SDL was very comfortable for students as their was no time constraints and supervision(8).

Like other studies our study was also not free of limitations important one being self reporting bias which could not be ruled out.

Summary & Conclusion

The results of test activity by the mode of SDL (153 students) showed that 96 (62.74%) of students scored high while 59 (38.56%) students were with medium score and no student was there with low score. In case of SDLI most of the students were keen to learn the things on their own (48.5%) about which they didn't have a clarity in class. Students (52.1%) agreed that SDL is the basic tool for overall improvement in their career. Around 55.7% of students collaboratively were of the opinion that they had their own goals set for self-learning and also whether it was beneficial or not for them. A fair number of students (45.5%) felt they need help in finding the correct learning resources to improve their knowledge and skills. Majority of students (62.3%) expressed that they are capable of expressing themselves in writing and more than one-half of them agreed that they are capable of evaluating their learning outcome.

SDL is effective teaching strategy that should be implemented to obviate barriers and equip students for lifelong learning process. Identification of students requiring special guidance by educators and simultaneously students on their own need to make efforts for self improvement. In our study students found SDL acceptable and would like more sessions but still they doubt the efficacy related it.

Reference

1. Madhurima K Nayak, Vijetha Shenoy Belle. Various methods of Self Directed Learning in medical education.J Med Sci 2020;1(1):15-22.
2. Bhandari B, Chopra D, Singh K. Self-directed learning: assessment of students' abilities and their perspective.Adv Physiol Educ 2020;44:383-86.
3. Pai KM, Rao KR, Punja D, Kamath A. The effectiveness of self-directed learning (SDL) for teaching physiology to first-year medical students. The Australasian Medical Journal. 2014;7(11):448.
4. Bahuleyan B, Panchu P, Babu R. SDL- Are our students ready? IJARESM 2020;8(12):471-76
5. Barrows HS. Problem-based, self-directed learning. Jama. 1983;250(22):3077-3080.
6. Ananthakrishanan N. Competancy based undergraduate curriculum for the Indian Medical Graduate,the new MCI curricular document: positives and areas of concern. J Basic Clin Appl Health Sci 2018;1:34-42.
7. Boyer SL, Edmondson DR, Artis AB, Fleming D. Self-directed learning: A tool for lifelong learning. Journal of Marketing Education. 2014 Apr;36(1):20-32.
8. Murad MH, Coto-Yglesias F, Varkey P, Prokop LJ, Murad AL. The effectiveness of self-directed learning in health professions education: a systematic

review. Medical education. 2010 Nov;44(11):1057- 68.

Legend Figures and Tables

Table 1: Demographic profile

Gender	Female n (%)	Male n (%)	Age	19yrs n (%)	20yrs n (%)	21yrs n (%)	22yrs n (%)
	92(51.97)	72(40.67)		6(3.7)	55(33.5)	77(47)	16(9.8)

Figure: 1

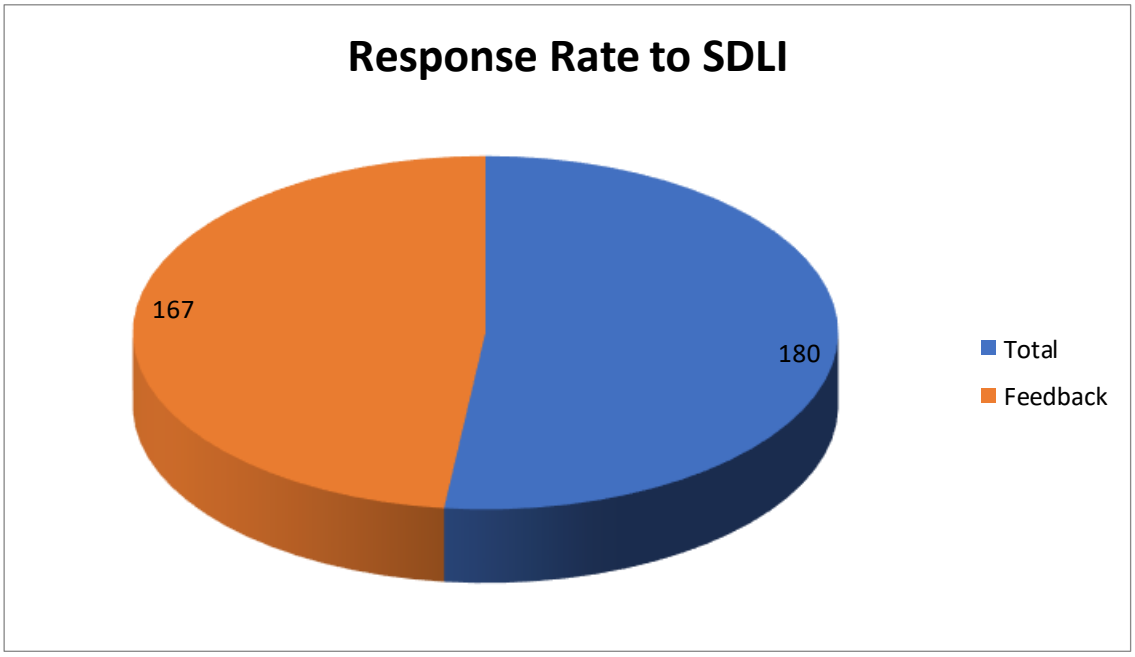

Figure: 2

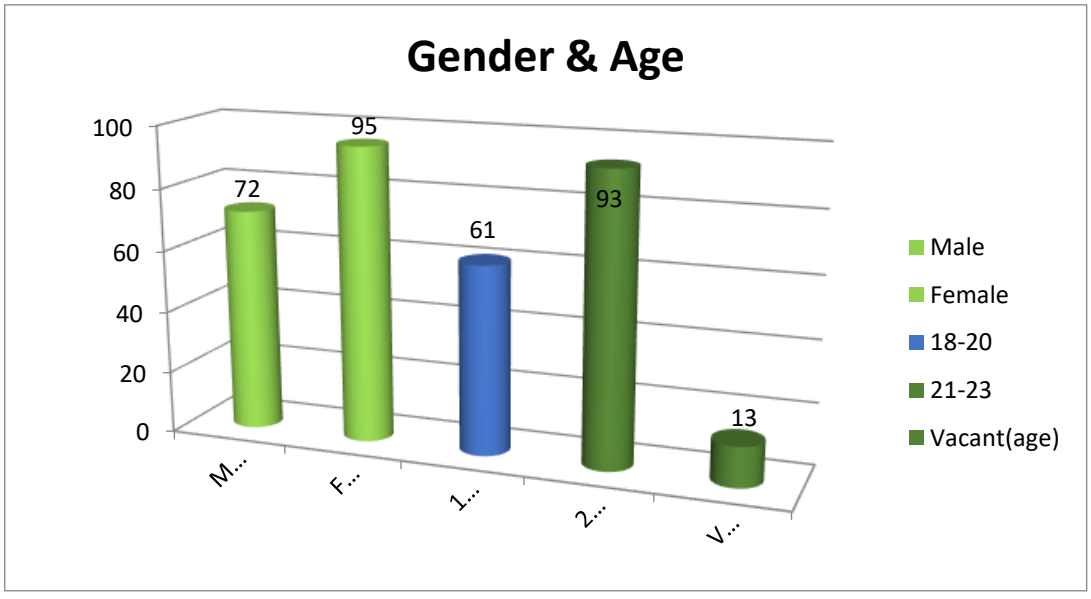

Table 2. Student's responses to self-directed learning instrument.

Sn.	Items	Strongly Disagree n (%)	Disagree n (%)	Neutral n(%)	Agree n (%)	Strongly Agree n(%)
1	I am always keen to learn things in my own way.	4(2.4)	9(5.4)	31(18.6)	81(48.5)	42(25.1)
2	I try to figure out reasons for questions and I don't understand in class.	8(4.8)	17(10.2)	50(29.9)	79(47.3)	13(7.8)
3	I find SDL as a basic tool for overall improvement and future career.	8(4.8)	7(4.2)	46(27.5)	87(52.1)	19(11.4)
4	I like to take the initiative of what I want to learn and when I learn it.	6(3.6)	6(3.6)	38(22.8)	86(51.5)	31(18.6)
5	I always try to find the right resources to help me perform well in school.	1(0.6)	9(5.4)	30(18)	81(48.5)	46(27.5)
6	I am better at learning things on my own than most of my fellow students.	6(3.6)	17(10.2)	83(49.7)	46(27.5)	15(9)
7	I keep myself motivated to learn things on my own rather than relying on others.	3(1.8)	9(5.4)	48(28.7)	76(45.5)	31(18.6)
8	In my learning process, I can tell whether I am learning something well or not.	-	12(7.2)	27(16.2)	93(55.7)	35(21)
9	I set up my own goals for self-learning.	-	7(4.2)	29(17.4)	93(55.7)	38(22.8)
10.	If I discover a need for information that I don't have I know where to retrieve it from.	4(2.4)	15(9)	63(37.7)	64(38.3)	21(12.6)
11.	I am looking forward to learning as a life long process.	4(2.4)	3(1.8)	20(12)	80(47.9)	60(35.9)
12.	I sometimes take time for getting started on my new assignments.	-	12(7.2)	42(25.1)	81(48.5)	32(19.2)

Statements were rated on a 5-point Likert scale, where 1= strongly disagree, 2= disagree, 3=neutral, 4= agree, 5=strongly agree.

Table. 3: Showing the results of test activity

Sn.	Scores	n(%) (153)
1.	High	96(62.74)
2.	Medium	59(38.56)
3.	Low	Zero

Scores were rated high (>7), medium (4-6.5) and low (<4)

Figure 3: Students attitude towards SDL as a basic tool for overall improvement and future career

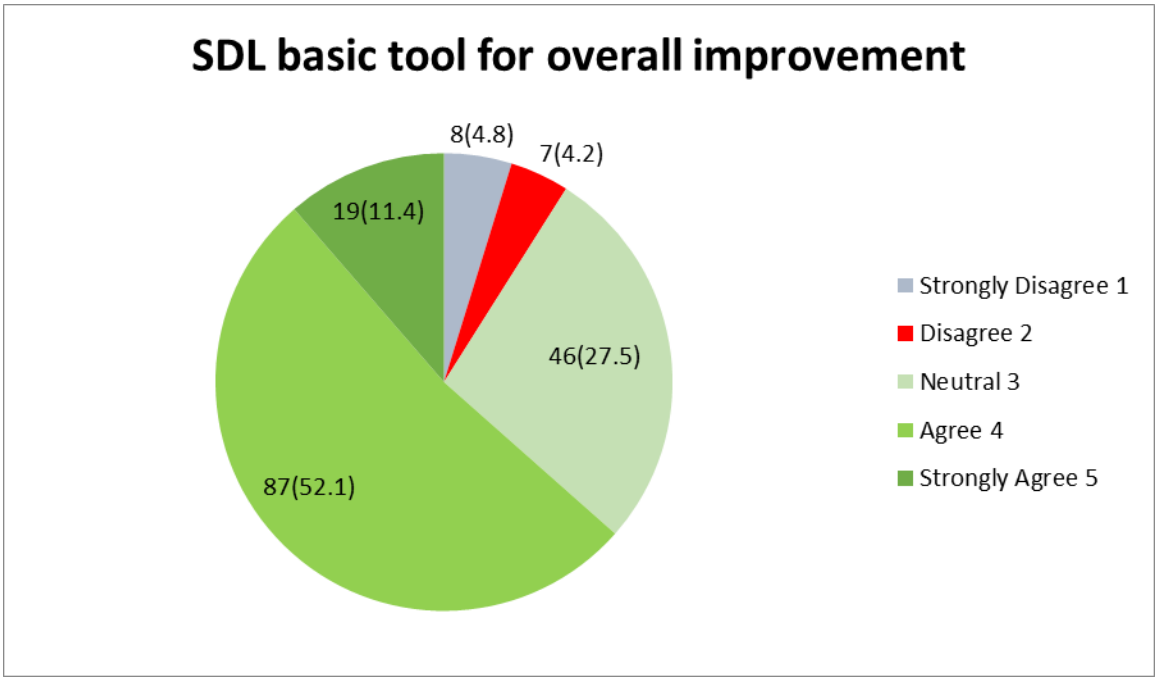

Figure 4: Students attitude towards self learning