

ORIGINAL RESEARCH

Perspective towards Self Directed Learning among undergraduate medical students and teaching faculties: A Qualitative Research

Dr. Vaishali Praful Bansod¹, Dr. Hemant Subhashrao Golhar², Dr. Prasad Vijay Bhatanglikar³, Dr. Shraddha S. Kulkarni⁴

¹Assistant Professor, ⁴Associate Professor, Department of Community Medicine, Bharatratna Atal Bihari Vajpayee Medical College, Mangalwar Peth, Pune, Maharashtra, India

^{2,3}Prthima Relief Institute of Medical Sciences A Division of Sahasra Educational Society H.NO. 51-3-626 Sahasra Nagar Near Ayyappa Swamy and Isckon Temple Mulugu Road Hanamkonda, India

Corresponding author

Dr. Shraddha S. Kulkarni

Associate Professor, Department of Community Medicine, Bharatratna Atal Bihari Vajpayee Medical College, Mangalwar Peth, Pune, Maharashtra, India

Email: drshraddha3008@gmail.com

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ABSTRACT

Background- Self-Directed Learning (SDL) is considered as one of the methods for teaching learning for medical students as per new Competency Based Medical Education Curriculum (CBME). Considering different individual interpretation about conduction of SDL, this study aimed to understand perspective of teaching faculties and students regarding Self-Directed Learning as a teaching learning method and its implementation. **Methods-** Qualitative study was conducted among undergraduate medical students of MBBS and teaching faculties of Medical College using purposive sampling by conducting In Depth Interview and Focus Group Discussion (FGD) for (IDI) of teaching faculties and undergraduate medical students. IDIs and FGDs were analysed by co-authors doing content analysis. **Result-** Seminar, case study discussion, group discussion, quiz competition, Rangoli were different methods identified to conduct SDL with teacher as motivator and requires authenticated guidelines for its conduction. **Conclusion-** SDL should be taken regularly with active participation of students and faculties required tool guide to elicit outcome and to enable medical undergraduate a lifelong learner.

Keywords- Perspective, Self-Directed Learning, medical students

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INTRODUCTION

As per new Competency Based Medical Education Curriculum (CBME) 2019, teaching learning methods have been shifted from teacher centric to students centric and different methods are put forward in medical education to achieve the goal of physician of first contact of community acquiring requisites like knowledge, skills, attitude, values and responsiveness. Self-Directed Learning (SDL) is one of the methods considered as teaching learning method. (1)(2)(3)The author Knowles coined the term SDL as “a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.”(4)

Although National Medical Commission (NMC) is conducting faculty development program which includes training about SDL, all the faculties and students are not familiar with SDL planning and its implementation. There is different individual interpretation about conduction of SDL. Its effectiveness is dependent on its proper implementation using thorough guidelines. As faculties and students are stakeholders for its conduction their perspective is essential for acceptance of SDL as newer teaching learning method to help students to become lifelong learner. Thus, the present study was conducted to explore the perspective of teaching faculties and students regarding Self-Directed Learning as a teaching learning method and its implementation.

METHODS

Ethical approval was taken from institutional research committee reference number BAVMC/IEC/Pharmac-0002 dated 20/04/2024 before conducting the study. Qualitative study was conducted among undergraduate medical students of MBBS and teaching faculties of Medical College using purposive sampling. Tool guide was prepared by expert faculty members of department for conducting In Depth Interview (IDI) of teaching faculties and Focus Group Discussion (FGD) of undergraduate medical students. To extract information in detail, FGD were conducted among undergraduate students of all professional years and they were selected on the basis of their attendance to SDL conducted by the department till beginning of the study. Students were selected from two groups, with less than 50% attendance and more than 50% attendance for the SDL. Faculties for IDI were selected from different groups like those involved in teaching learning with varied experience from one year to ten years; members of College

curriculum committee; members of Medical Education Unit; faculties of preclinical, and para-clinical subjects to get perception from representative of different departments. Faculties and undergraduate students those gave informed consent to be part of study were included in study. Date, time and place of IDI and FGD were finalized with prior discussion with participants. Numbers of IDIs and FGDs were conducted till satisfaction level was achieved. All IDIs and FGDs were tape recorded with prior permission of participants and then were transcribed and coded. IDIs and FGDs were analyzed by co-authors and content analysis was done to understand their perspective regarding Self Directed Learning as a teaching learning method.

RESULTS

Satisfaction level was achieved after conducting 8 IDI and 6 FGD. Content analysis was done and results were described under different themes as follows. (refer table 1)

Table 1: Content analysis- faculty and student's perspective about SDL

Themes	Faculty's perspective	Student's perspective
Perception about SDL	Open book examination, seminar, case discussion, interactive session, case scenario question	Confusion regarding self-study and SDL
Conduction of SDL and experience	Conceptual, application based, allotment of mentor, student's efforts, guidelines for SDL	Regular, creative, interactive and compulsory, time management
Selection of topic for SDL	Conceptual and core competency not to be considered	Difficult to understand and application-based topics can be covered
Strategies or ways to promote SDL	Seminar, flip classroom, case discussion	Role play, quiz, seminar, as ice breaking session, case studies, body painting, and Rangoli
Changes in teaching learning style	Use of different small group teaching methods	Active participation of students
Role of teacher in SDL	Facilitator's role	Motivator, mentor, assessor
Role of students in SDL	Active learner	Active participation by each student
Advantages of SDL	Stimulates critical thinking, thorough knowledge of topic, long term memory, sense of responsibility, self-reliant	Pictorial memory, active learning, comprehensive learning, practical application of knowledge, soft skill development, interaction with peers, time management, realization of student's own abilities
Disadvantages of SDL	Limited topics can be taught, gap in knowledge due to lack interest from students	Lack of adequate time, lack of knowledge about what to learn from given topic, some concepts may remain understood, not suitable for every student
Difficulties in conducting SDL	Student teacher ratio	Scope of topic of SDL
Assessment of SDL	MCQ, SAQ, reflections	Assessment of participation and role of student throughout the process of SDL

Perception about SDL

Many faculties heard the word SDL when it was considered as teaching learning method in CBME

curriculum. Different faculties had variety of views about it like it can be open book examination after preparation of topic; students can be guided for topic

to present in seminar, case discussion, interactive session to check knowledge how much they have understood; students need to learn by themselves beforehand or in teaching hour.

Some students had doubt is self- study different from SDL? Some students explained that “we go through multiple books, journals, publication for preparation of SDL” “We read a lot of materials that are not related to topic of SDL.” “We can take our own time to understand the concept.”

Conduction of SDL and experience

Faculty members had conducted SDL in different manner like topic was allotted to students prior, and given resources and instructions for preparation and on scheduled date they were assessed by MCQ test through google form. Some faculty members expressed the experience as “It was good experience as it was self-analyzing method, able to know their score immediately, we could also download the sheet, almost 100% students attended the SDL, response from students was positive.”

Some faculty members planned SDL in two parts conceptual understanding and application based. Some faculty members mentioned that SDL can be conducted by case based learning and flip classroom and feedback from students was taken at the end of session.

Most faculties felt that authenticated guidelines are required to conduct SDL and its assessment. One faculty member expressed that “SDL was just introduced in workshop taken under faculty development program in MET (Medical Education Training) workshop.”

Some students expressed that “it should be regular, creative, interactive and compulsory for all students.” Some students expressed that “teacher guided us personally at any time of the day till the concepts get clear, also corrected us at the time of presentation if get wrong.” Other students wanted SDL to occur less frequently and they quoted that “all departments take SDL at the same time and difficult for us to do it and it becomes burden and boring.”

Selection of topic for SDL

All faculties had similar opinion on selection of topic for SDL. Some faculty member mentioned that planned SDL can be planned for topics which are introduced in previous year. They thought that topics should not be conceptual topic not to be considered as faculty role is minor. But some faculty were of opinion that in SDL, small and concept-oriented topics can be focused and covered.

Students expressed their views about topic selection for SDL as “topics difficult to understand in first reading, clinically based topics, topics applicable in daily life, more application in exam should be selected as topic learnt in creative way we remember more.”

Strategies or ways to promote SDL

Faculties conducted SDL in different formats like seminar activity, flip classroom, case discussion. Students told that many departments had conducted SDL using different methods like role play, seminar, as ice breaking session, case studies, body painting, and Rangoli. Students expressed that “we wish to take SDL in different formats like group discussion, charts, debates, library session, quiz competition.”

Changes in teaching learning style

Faculty gave opinions like traditional method was exhaustive for faculty. One faculty said that “in SDL faculty needs to facilitate students and prepare them for self-learning with understanding of concepts through interactive session.” “We need to think for topic and need to make changes in teaching learning style as per need of sequence of SDL.”

Role of teacher in SDL

Faculties gave varied opinion on role of teacher in SDL. Some faculty felt that faculty has minor role in SDL as compared to traditional teaching and only to show the direction to students to prepare for topic by themselves. But others felt that teacher plays major role as students need to be guided at each step like from where to read, how to present and how to explain more important part and need to facilitate learning. Faculty need to ensure that students should not lose focus on topic and understand the concept of given topic at the end of SDL.

Students felt that teacher has dominant role in didactic lecture but in SDL teacher has specific roles like guiding students, increase curiosity among students, motivate them to read from resources other than books, need to tell students about SDL prior so that it will be easy for students to come prepare for it, increase participation of students. Teacher need to do analysis how much knowledge is gained by students and give feedback at the end of SDL.

Role of students in SDL

Some faculty members felt that student plays major role as need to search information from different reference book, prepare topic by themselves. Some faculty members felt that students need to take interest in SDL and follow the instruction of teacher. One of the faculty mentioned that student need confidence, self-motivation for SDL and active participation.

Some students also agree that students play dominant role in SDL but some opined that “it differs from person to person. only some students take it seriously. One student said that “we need to actively participate, to meet teacher whenever asked.” Some students also think that it is task given by teacher and need to complete it in time.” Students felt that they should focus on collective learning and use different methods to learn. They should also focus on concept that is not understood.”

Advantages of SDL

Some faculty members felt that SDL does not involve passive learning, it stimulates thinking and learning among students. Teacher expressed thought “it is not just scoring marks, students get thorough knowledge of topic, understanding is good, remember for longer duration and can apply knowledge during clinical posting.” Other faculty expressed that students feel sense of responsibility as they need to learn topic entirely and present it in front of whole class so there is active participation from student’s side. SDL make students more self-reliant for study, so more important and relevant.

Students also expressed their thought that “SDL enhance participation of students, it gives freedom to students in preparation, it creates pictorial memory, it helps in better understanding of topic to students and improves learning ability. SDL also helpful for exam preparation, it saves time, help to develop soft skills. It teaches us time management.”

Some students quoted that “we read the topic thoroughly and in depth.” “if teacher gives us case scenario then we can solve the case by understanding its pathophysiology, microbiology that helps us in medicine posting and those students who do not take part at first SDL, feel bad and try to solve the case.”

Some students expressed importance of SDL in developing soft skills like “in viva we get short of terms, words but SDL help us to get use to different medical terms. When we teach, explain, we tend to remember the most.” Some students quoted that “only reading is passive but peer group teaching is active learning and SDL enhance active learning. It improves visual memory and cognitive memory. Integration of SDL and lecture help learning process.” Some students expressed that “it improves creativity, body language, way to speak, depth of knowledge, interaction with peers, get to know different ways/views to learn one specific topic, give direction to us.” They felt that it helps in improving memory and abilities. “SDL helps to convert short term memory into long term memory by revising topic many times.” “gets to know our own abilities in which we are good.” All faculties and students want to continue SDL as one of the teaching learning method regularly in combination with lecture.

Disadvantages of SDL

Some faculty members expressed that “students will not understand the topic completely if conceptual part of topic is not explained by faculty.” Some faculty members said that “students not interested in SDL will not be benefited.”

Students expressed their thought like “SDL is not suitable for every student; few students underestimate themselves and there is lack of participation and it creates gap in knowledge.” Some students also said that “time given is to be decided based on the importance and relevance of topic.” Some students felt that SDL should be taken frequently with participation

and interaction of all the students. While some students felt that number of SDL should not be too many. Students from one FGD mentioned that “it is time consuming if not properly planned”

Difficulties in conducting SDL

Some faculty members said that Considering student teacher ratio, it is difficult to take SDL in current MBBS scenario. Some students told that “framework of SDL and scope of topic covered in SDL need to be defined as we don’t understand where to stop as medical knowledge is vast.”

Assessment of SDL

Most of faculties prefer MCQ, SAQ, reflections. Some faculties gave different opinion about assessment. “assessment depends on type of SDL taken and what students have gained from SDL.” “we can have one to one interaction with students by asking their perception and what they have understood if cases are given in the form of SDL.”

Some students said that assessment should be throughout the process of SDL. They expressed that “it should be based on preparation by individual student, understanding of soft skill, efficiency, leadership, communication with teacher, efforts put in by students in preparation, presentation, interest shown by student.”

DISCUSSION

Our study explores the perspective of teaching faculties and students regarding Self-Directed Learning as a teaching learning method and its implementation. Students had confusion regarding self-study and SDL. Literature review done by Linkous said that learning occurs in SDL by internal characteristics of learner with primary responsibility and external control whereas in self-study individual has focus on goal attainment with control over emotions and thoughts.(5)

In our study, faculties used different ways to conduct SDL like seminar, case study discussion based on problems identification, group discussion, quiz competition, Rangoli. Anshu et al gave various strategies to promote SDL as knowledge maps, flip classroom, group projects, reflective portfolios, problem-based learning, reciprocal teaching, student doctor concept.(6) Scoping review done by Trullas et al concluded that problem-based learning is an effective method for medical students to acquire knowledge and become competent.(7) Study done by Lu et al recommended that blended learning is better than conventional didactic lecture to inculcate medical student’s SDL ability.(8)

In our study, students and faculties gave different views regarding topic to be selected for SDL. Students reported that SDL as useful learning method, difficult to understand and application-based topics can be covered under SDL. Faculty thought that conceptual topics should not be considered for it. Study

conducted by Muraleedharan et al also found that SDL is very useful method but difficult to understand topics should not be considered under SDL.(9)

In our study, there was varied thinking between students and faculties about role of teacher in SDL. As per students, role of teacher is facilitator and assessor. As per faculties, students need to be guided at every step. Study conducted by Angadi et al described role of teacher as motivator, mentor, evaluator.(10)

In our study faculties reported that students have major role but they need to be motivated for SDL and interest of students is required during learning process in SDL. Similar findings were reported by study done by Wong.(11) Students reported that SDL should be regular, compulsory and interactive. Study done by Bhandari also found similar result that it is to be organized at regular interval to encourage students for their active participation.(12) Study done by Premkumar et al concluded that strategies need to be considered to change learning environment to facilitate SDL among medical students.(13) Study done by Deepak et al reported that SDL helps students to engage themselves in learning process.(14)

In our study, many benefits of SDL were reported by students and faculties. As per students, SDL affect their learning ability, stimulates active learning, gets through knowledge about topic, knowledge remain for longer duration and can be applied in clinical posting, helps to develop soft skill, interaction with peers and helps to do time management. Similar results were reported in other studies. Study conducted by Liu concluded that it helps students to become lifelong learner.(15) Study conducted by Menon reported that 69% respondents reported that SDL reinforce their learning and 66% agreed that it helped them to become lifelong learners.(16) Study conducted by Anil et al also reported similar findings like SDL improved participant's comprehension of subject matter, improved their cognitive skills and team work.(17) Study done by Kemp also reported that students experienced increased confidence and appreciate collaboration with peers.(18) Towle et al concluded in his report that SDL is key link between undergraduate education, postgraduate training and continuing professional development.(19) Study done by Zia reported that students who attended additional SDL classes scored higher marks as compared to students who attended only lectures and result was statistically significant.(20)

In our study, students reported some demerits of SDL like some concepts may remain understood, collective growth may be challenging, poor interest if time bound, some students may feel it difficult. Systematic review done by Buch et al found similar challenges of SDL like time constraints, faculty guidance, difficult to learn complex topic.(21) Study done by Siraja et al found challenges like students found difficulty in planning and implementation of SDL.(22)

In our study, most faculties felt MCQ, SAQ, descriptive method are different methods for assessment of SDL topics. These methods are also reported as assessment methods by other similar studies.(23) Study done by Shrivastava reported that it can be carried out as self-assessment or peer assessment or by involvement of teachers.(24)

In our study faculties felt that guidelines are required to understand the process of SDL conduction and assessment methods. With review of literature we found faculty guide for SDL conduction.(25)

CONCLUSION

SDL was perceived as effective tool as learning method by students as well as faculties but it should be taken regularly with active participation of students and faculties required tool guide to elicit outcome and to enable medical undergraduate a lifelong learner.

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