

# Students' perception of self-directed learning in dermatology: A survey

Sir,

Learning/understanding with one's own efforts is self-directed learning.<sup>1</sup> There are various methods of teaching/learning in undergraduate/postgraduate education like lectures, group discussions, journal clubs, seminars, pedagogy and case presentations which incorporate components of self-directed learning in them.<sup>2</sup> A well-planned activity with good practical implementation and evaluation are the key factors for the success of self-directed learning.<sup>3</sup>

Self-directed learning was introduced by National Medical Council into medical undergraduate (MBBS) curriculum in 2019.<sup>3,4</sup> As per Competency-Based Medical Education, the National Medical Council has allotted five hours for self-directed learning in dermatology for the undergraduate curriculum.<sup>4</sup> As it is a recently introduced modality, the advantages and disadvantages are not well understood. The importance of self-directed learning in the undergraduate curriculum has been highlighted in many studies.<sup>1,3</sup> However, students' perception of self-directed learning needs to be investigated. Two decades ago, we shared our experience in group discussion<sup>2</sup> and journal club<sup>5</sup> in the postgraduate curriculum. In our centre, we have recently drafted self-directed learning so as to make it a student-friendly academic exercise.

Our aim was to conduct a survey on students' opinion with respect to content, conduct and usefulness of self-directed learning.

This survey was conducted among MBBS students of phase 3 part 1, posted in the department of dermatology at JSS Hospital, JSS Medical College, Mysuru. The self-directed learning topic chosen was "Syndromic management of sexually transmitted infections." The process of conducting self-directed learning is illustrated in Figure 1. The time duration for the self-directed learning was divided as follows: introduction and objectives - 5 minutes, a brief discussion of clinical features of sexually transmitted infections using clinical slides (prepared by IADVL digital library) - 10 minutes and revision of algorithms on syndromic management - 10 minutes. Students were grouped into

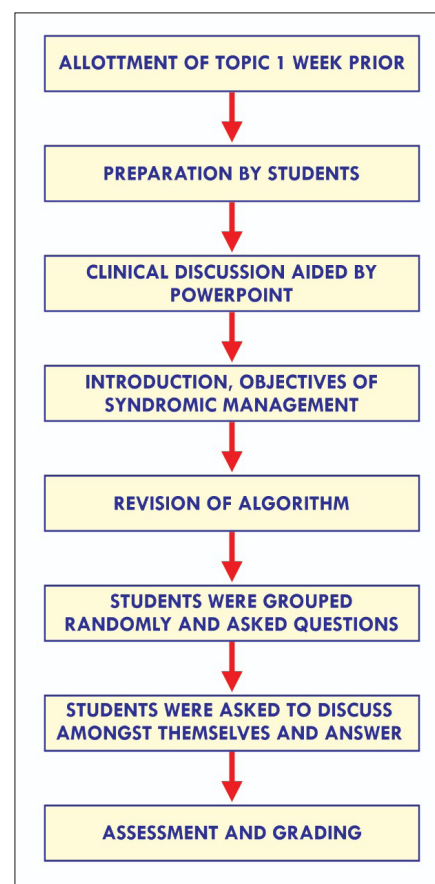


Figure 1: Various steps of self-directed learning

batches of 10 and were allowed to discuss in their groups. Each group were asked four to five questions related to the topic over a period of 35 minutes. Each group was assessed, following which grading was performed.

At the end of the session, students were asked the following three questions - (1) whether they preferred self-directed learning or lectures as the preferred mode of teaching, (2) to grade how much self-directed learning was better compared to lectures as (a) 25%, (b) 50%, (c) 75% and (d) 100% and (3)

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**Table 1: Preference of students to a mode of learning**

| Parameter                                   | Number of survey responses ( <i>n</i> = 79)           | Number (%) |
|---|---|------------|
| Mode of learning                            | Self-directed learning                                | 64 (81%)   |
|   | Lectures  | 15 (19%)   |
|   | Test statistics Chi-square = 30.392; <i>P</i> = 0.001 |            |
| Self-directed learning rating over lectures | 25% better  | 0 (0%)     |
|   | 50% better  | 5 (6%)     |
|   | 75% better  | 38 (48%)   |
|   | 100% better   | 36 (46%)   |
|   | No difference   | 0 (0%)     |
|   | Test statistics Chi-square = 26.00; <i>P</i> = 0.001  |            |

the students' suggestions for improvement of self-directed learning curriculum.

Seventy-nine students attended self-directed learning and responded to the survey. Self-directed learning was preferred by 64 (81%) of students and the remaining 15 (19%) of them preferred lectures as a mode of learning and this difference was found to be statistically significant ( $X^2 = 30.392$ ;  $P = 0.001$ ) [Table 1].

Self-directed learning was rated as 100% better than lectures by 36 (46%) students and as 75% and 50% better by 38 (48%) and 5 (6%) students respectively. None of them rated self-directed learning as only 25% better. This shows that majority of students (94%) rated self-directed learning as 75% or more better than lectures and this difference was found to be statistically significant ( $X^2 = 26.0$ ;  $P = 0.001$ ) [Table 1]. Total of 79 students were grouped into seven groups. Responses and their perceptions on SDL were analyzed [Table 2]. Students were assessed and graded (A+ to E) based on their discussion and answers [Table 2].

We wanted to have concise teaching techniques to be incorporated into self-directed learning. Therefore, we systematically incorporated (1) a comprehensive lecture supplemented with illustrative materials, (2) a group discussion and (3) an assessment of self-directed learning [Figure 1]. It provides a forum to achieve a frequent revision of a single topic in a single sitting. Group discussion is a core component of self-directed learning and therefore principles of group discussion hold true for self-directed learning also. Criteria for the selection of topics to be included in group discussions have been highlighted in some studies.<sup>2</sup> Topics that are difficult to learn individually or by one's own effort, rare disorders, topics which fail to generate interest, topics which are not regularly covered in teaching programs like seminars and case presentations, diseases that have complicated pathways that are difficult to remember unless frequent revisions are done and topics that are often neglected by students can be included in self-directed learning.

We were able to assess students in a short period of time (35 minutes). We recommend self-directed learning as a

**Table 2: A summary of the opinions of the students about self-directed learning**

| Perception of students to prefer self-directed learning        | Perception of students to prefer lectures | Grading of students* |
|--|---|----------------------|
| Quick and comprehensive learning                               | Better comprehension                      | A+<br>2 groups       |
| Better motivation to take part in the discussion               | Amount of topic covered is more           | A<br>1 group         |
| One-to-one interaction   |   | B<br>3 groups        |
| Constant concentration and attention throughout the program    |   | C<br>1 group         |
| Easier to understand   |   |                      |
| Active participation by students                               |   |                      |
| Better for revision  |   |                      |
| Helps in facing competitive exams                              |   |                      |
| Practical application of knowledge                             |   |                      |
| <b>Students' suggestions to improve self-directed Learning</b> |   |                      |
| Incorporation of multiple-choice questions                     |   |                      |
| Case-based discussion can be incorporated                      |   |                      |
| More visual representation                                     |   |                      |
| Conduction of pre- and post-test                               |   |                      |

\*Grading of students (A+ - 90–99%, A - 80–89%, B - 70–79%, C - 60–69%, D - 50–59%, E - <50%)

method of learning parallel to seminars for both undergraduate and postgraduate teaching. The role of the moderator, participants/students and faculty in postgraduate group discussion is highlighted.<sup>2</sup> The moderator selects relevant literature and protocol for group discussion in advance, and illustrates with figures and flow charts in the appropriate sequence. In self-directed learning, the faculty performs the role of moderator similar to postgraduate group discussion. During the assessment, they clarify doubts and ambiguity in students' views.

The prime reason for some students to choose traditional lectures over self-directed learning was that they felt the volume of topics covered was more. Our study is limited to just one term. In future, we would like to do it periodically and assess self-directed learning on a long-term basis.

Self-directed learning facilitates a better understanding and analysis of the topic. In our view, self-directed learning is a more effective teaching and assessment tool. Difficult-to-understand topics in a subject can be learnt better with self-directed learning. It incorporates comprehensive lectures, group discussions and assessments. All students can be assessed in the shortest time possible, unlike case presentations/seminars where only a single candidate is evaluated at a time.

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**Declaration of patient consent**

Patient's consent is not required as there are no patients in this study.

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**Conflict of interest**

There are no conflicts of interest.

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