Original Research Article

Utility of self-learning packages in medical teaching: experience from a teaching hospital in South India

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ABSTRACT

Background: Many newer methods of teaching and learning have evolved, and more emphasis is given to self-directed learning. Self- Learning Package (SLP) is a teaching method used for self-directed learning which is complimentary to conventional teaching. Here the teacher plans and sets the teaching material and the students learn at their own time and pace. The proportion of students effectively making use of SLP varies. This study was designed to analyse the usefulness of these self- learning packages and to evolve strategies to improve its effectiveness.
Methods: 131 students of second professional MBBS of Govt. Medical College, Kottayam after informed consent and IRB approval were introduced to twenty modules of SLP prepared in the department of Pathology. Students were evaluated for regularity of use and marks scored in sessional exams using a checklist. An open-ended questionnaire was used to get student's perceptions and suggestions about the use of SLP and was analyzed qualitatively. The data were analyzed by unpaired T test using appropriate statistical software.
Results: The study showed that there was significant difference in marks obtained by the regular and irregular users of SLP. Regular users scored more marks compared to the non-users, this difference was more in practical marks than in theory. 25% of students opined that it helped in improving knowledge. 55% felt that it helps in better clinical correlation. 20% felt that it improves knowledge and aids in better clinical correlation. Students also suggested that the modules should be in parallel with lecture topics.
Conclusions: Self-learning packages help students to enhance their knowledge and improves the clinical correlation skills if properly prepared and used. Self-motivation of the student and proper faculty guidance is essential for the regular use of SLP.

Keywords: Self-directing learning, Self-learning packages

INTRODUCTION

The purpose of teaching is to facilitate learning. In the era of knowledge explosion and technological advancement the conventional mode of class room teaching is losing its significance to a great extent. Many newer methodologies have been adopted for teaching in medical education also. Self-directed learning (SDL) has been one of the predominant issues in the study and practice of medicine

in the last few decades. Self-directed learning describes a process in which individuals take the initiative with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing learning strategies and evaluating learning outcomes.it has become an essentiality in medical education due to the vast expansion of knowledge, easy accessibility to information and greater emphasis on reflection. The

medical graduates and practitioners are envisaged to be life- long learners committed to continuous improvement of skills and knowledge.[1,2] New teaching and learning methods are introduced into course such as problem based learning, video teaching and web based learning. These methods themselves became less formal and more structured in terms of design, delivery and assessment. The concept of self-directedness in learning was first discussed in educational literature as early as 1926.[3] From these writings, a preliminary description of self-directed learning emerged. Self-directed learning, in its broadest meaning, describes a process in which individuals take the initiative with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing learning strategies and evaluating learning outcomes.[4,5]

Self- learning package (SLP) is one such teaching method used for self- directed learning which is complimentary to the conventional teaching.[6,7] Here the teacher plans and sets the teaching material and the students learn at their own time and pace. The proportion of students effectively making use of SLP varies. There may be technical as well as personal factors influencing this. Till date no study has been conducted on how it influences the learning of the students. Hence this study was designed to analyse the usefulness of these self-learning packages and to evolve strategies to improve its effectiveness.

METHODS

One hundred and thirty-one students of second professional MBBS of Govt. Medical College, Kottayam after informed consent and IRB approval were included in the study. The whole batch of students were divided into ten groups of 13 students each and a faculty member was allotted to each group.

Twenty modules of self-learning packages were prepared in the department of Pathology-each including one gross pathology specimen, corresponding histopathology slide, relevant history and 5-6 questions based on the topic and each module was left available to the students for learning for a period of one week. The students were asked to utilize them, study and submit the answers every week to the faculty in charge who keeps a check list.

The check lists were collected from the faculty and analysed. The students who utilized 50% modules were categorized as regular users and others as nonusers/ irregular users based on the check list.

An open-ended questionnaire was used to get student's perceptions and suggestions about the use of SLP and was analysed qualitatively. Marks obtained by regular SLP users in sessional examinations were compared with that of irregular/non-users. The data were analyzed by unpaired T test using appropriate statistical software.

RESULTS

131 MBBS students of the fifth semester took part in the study. Of these 59(45%) were males and 72(55%) were females. 71 students were utilizing the packages regularly by studying the gross specimens, microscopy slides and answering the questions. This was observed from the score sheet and data obtained from the faculty. 60 students were irregular users. The marks obtained for the final sessional theory examination and practical spotters were compared for regular SLP users and irregular users. The mean marks obtained for theory was 22.97+5.17 for regular users and 16.33+5.53 for irregular users. The t-value obtained 7.083 was significant at 0.01 level (Table 1).

Table 1: t-test comparing mean marks of students for theory exam among regular and irregular users of SLP.

Type of SLP user	Number (%)	Mean marks	Sd	t-value
Regular	71(54%)	22.972	5.1796	
Irregular	60(46%)	16.333	5.5347	7.083**
Total	131 (100%)			

**Significant at 0.01 level

There was also marked variation in marks obtained for spotters, with regular users scoring more than irregular users, the marks being 32.08+3.95 and 25.96+5.04 respectively. The t-value obtained 7.775 was significant at 0.01 level (Table 2).

Table 2: t-test comparing mean marks of students for spotters among regular and irregular users of SLP.

Type of slp user	Number (%)	Mean marks	Sd	T-value
Regular	71 (54%)	32.085	3.9524	
Irregular	60 (46%)	25.967	5.0488	7.775**
Total	131(100%)			

**Significant at 0.01 level

Qualitative analysis of the questionnaire was done. 25% of the students were of the opinion that regular use of these self-learning packages helped in improving the knowledge, 55% found that these helped in better clinical correlation and 20% said that regular use of these packages helped them attain knowledge and also better clinical correlation. 5% did not respond.

The factor that prevented some students from using the SLP was that they couldn't find time in between the class schedule. The slides and specimens were exhibited in the museum which was open only from 9am to 4pm.

Some students were of the opinion that there should be compulsion from the faculty and monitoring for the regular use of SLP.

DISCUSSION

The present study showed that there was significant difference in marks obtained by the regular and irregular users of SLP. Regular users of SLP scored higher marks in theory and spotters than irregular users.

This difference was more in practical marks than theory marks. 25% of students opined that it helps in improving knowledge. 55% felt that it helps in better clinical correlation. 20% felt that it improves knowledge and aids in better clinical correlation. Students also suggested that the modules should be in parallel with the lecture topics.

Being a life-long learner is a desirable quality to be inculcated in every Indian Medical Graduate 1,2,8. Beyond the early years of medical school training most of the knowledge and skills acquired by a competent doctor is through self-learning. Motivating young medical learners to be life-long learners and guiding them through self-learning skills thus become a major responsibility of medical teachers. SLPs can be created in various departments on various internet or non- internet based platforms. Internet based SLPs are easily accessible, more flexible and learner centered.

SLPs may be considered as the beginning towards life-long learning which is carefully selected and supervised by a teacher. The teachers' role does not end with creating an SLP. They should be able to foresee where the learner can go wrong and should incorporate the remedial measures into the package. Setting a learner friendly environment, user friendly interface and motivating the learner also becomes the responsibility of the facilitator. The teacher plays a key role in helping students make a smooth transition from teacher-directed to self-directed learning. The teacher must assess the students' readiness for the method, establish the boundaries of the students' decisions about their learning and teach about the methodology.[9]

CONCLUSION

Self-learning packages help students to enhance their knowledge and improves the clinical correlation skills if properly prepared and used. Self-motivation of the student and proper faculty guidance is essential for the regular use of SLP.

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