

Use of the “One Minute preceptor” method to assess the dermatology undergraduate student’s auditory perception capacity - an open labelled study

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Abstract

Background Learning is broadly divided into visual, auditory, reading-writing and kinesthetic groups, and each student varies in their capacity to learn, majority being reading-writing learners. Medical education is mainly imparted via lectures and bedside teaching, which is mostly auditory.

Methods This was a prospective open labelled study to assess the capacity of the students to comprehend a topic taught solely by means of lectures. Fifty students undertook the study by listening to a topic for 10 minutes and then answering questions by writing, which was evaluated and graded from 0 to 10 points.

Results Only 3 students, 6.8% scored above 7 points, whereas majority were poor or average performers.

Conclusion Students learn by a variety of techniques, and the predominant method may vary from person to person, preferably reading and visualizing in the majority. Dermatology being a vast subject, we may have to change our teaching methods to incorporate various innovative techniques.

Key words

One minute preceptor, dermatology, undergraduate, auditory.

Introduction

Medical education is a complex and never-ending process, the more so challenged due to the busy schedules of clinicians which may compromise effective clinical teaching. Moreover there is no uniform standards of education across the world, or even across a single country.¹ Dermatology is no exception, being a vastly advancing subject with multitudes of diagnostic and therapeutic innovations, along with coining of new diseases and terms,

occurring in a steadfast manner. The challenge lies in utilising minimum teaching time and effective teaching methods for maximum gains. Learning is broadly divided into Visual, Auditory, Reading – writing and Kinesthetic (VARK) groups.² Majority of medical teaching utilizes all 4 modes in different capacities. However bedside clinics are usually taught via demonstration and lectures and auditory teaching supervenes the other modalities.

Challenging educational situation

Students widely vary in their abilities to learn – majority being reading-writing learners, and very few belonging to auditory group. However, most of dermatological teaching occurs via lectures where talking plays a major role.

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Questions in the area

Do students adequately understand the learning points taught in dermatology, which is a very visual subject with clues to most diseases apparent to the naked eye, especially by auditory means alone?

Objectives

To assess the capacity of the students to comprehend a dermatological topic taught solely by means of lectures without visual aid.

To this effect, the modified 'one minute preceptor' (OMP) test was conducted.

Methods

Setting Undergraduate lecture hall, Department of Dermatology, Venereology and Leprosy, Kasturba Medical College, Manipal.

Target population Fifth semester MBBS Undergraduate students attending the Dermatology Department.

Sample size Fifty students were chosen after verbal informed consent. Due to various reasons, 6 students dropped out later on.

Study design open labelled study involving 44 students who attended Dermatology clinical posting in October 2014

The students were subjected to listen to a comprehensive lecture on alopecia areata for 10 minutes without the aid of projectors, black board or clinical slides. The key points covered were noted down in a paper and denoted specific marks. Total mark was 10.

At the end of the lecture, the students were asked to write down the key points taught within approximately a minute's time.

All papers were evaluated with respect to number of key points answered by the students. Each point carried specific marks.

The marks were totaled and rounded up in percentages. The average and mean of the group was calculated. The students were divided into 3 groups based on their performance:

>7-10 points – Excellent auditory learners

>3 -7 points – Average auditory learners

0-3 points – Poor auditory learners

Expected outcome As predominantly auditory learners constitute a few percentage of the population, it was expected that majority will score less than 7 points.

Result

Out of 50 students, 44 attended the one minute preceptor evaluation. The answer papers were corrected (**Figure 1**).

15 students i.e. 34.09% had 3 or less points.

26 students i.e. 59.09% got 3-7 points.

There were only 3(6.82%) students with more than 7 points.

The range varied from 2 points obtained by a single student to 8 points obtained by another student. The majority were average performers, there being 25 students who obtained 3-5 points (56%).

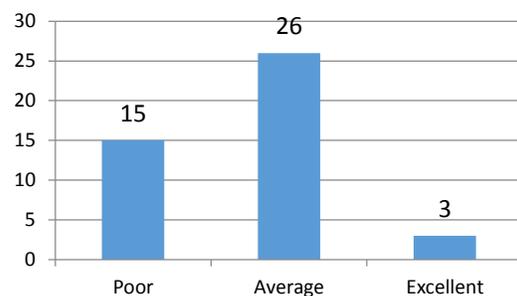


Figure 1 Results of One minute Preceptor test

Discussion

Students learn by a variety of techniques, including listening, reading, writing, repetition, visual and kinaesthetic. The predominant method may vary from person to person, reading and visualizing being the most preferred ones. However our bedside lectures mainly stress upon reciting the facts to the students along with demonstration of clinical findings, if any, which may not be retained in their minds due to varying factors including tiredness, lack of concentration, other distractions and discomfort of standing for long periods. Hence it is preferable to provide an optimum learning situation to the students which include audiovisual aids and kinaesthetic learning.

Medical education is a developing subject and many easy skills and techniques have been incorporated to overcome teaching and learning difficulties. The one minute preceptor test was initially conceived in the late nineties as part of Five-Step 'Microskills' Model of Clinical Teaching.³ It involves taking full advantage of teaching encounter in as less time as possible, by involving number of skills and ideas presented in a stepwise and orderly fashion by dividing information into discrete steps.⁴

Here a modified version was utilized, by dividing a subject, alopecia areata into ten teaching steps involving definition, pathogenesis, predisposing factors, associations, clinical features, differential diagnoses, clinical tests, investigations, treatment, prognosis. The students were initially explained regarding the importance of carefully listening to each part, and were told they will have to summarise the points in one minutes' time at the end of the audio lecture. It was seen that most of the students were poor listeners, despite cautioning them about the small test at the end.

This shows the importance of relying more on visual, kinaesthetic, role play and other modes of teaching, rather than relying upon talking and listening, which occupies a major chunk of our current dermatological lectures, and even bedside teaching which often transforms into a lecture.

Dermatology being a very volatile subject, especially when dealing with not so common diseases, the importance of an integrated approach to teaching, stressing upon the additive use of various modalities of teaching including audio, video, powerpoint, skill demonstration and other methods which make the students think, assimilate and learn, rather than passive rote learning.

When it comes to medical teaching, innovation is the key.

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