

Evaluation of impact of Integrated Teaching over Didactic lecture on student learning

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ABSTRACT

Background and objectives

Integration of subjects always facilitates gaining of knowledge, skills and attitude of medical students. Integrated teaching method was planned accordingly for I MBBS students. Aim of the study was to evaluate the impact of integrated teaching over didactic lecture on student learning

Methodology

The present study was done on 113 students of I MBBS, who were exposed to didactic lecture on erythropoiesis and anaemia taken by Physiology faculty for 60 minutes and later to integrated teaching on the same topic by Physiology, Pathology and Biochemistry faculty. After both the lectures, evaluation of impact of integrated teaching method and didactic lecture were done by feedback questionnaire with 10 questions and Likert scaling. Data analysis was done using SPSS version 10.0 to interpret the students' response.

Results

64% of students preferred integrated teaching over didactic lecture. 61.9% students felt that understanding the content of subject was quite a bit useful from integrated teaching. 39.82% said it was quite a bit easy to understand difficult topics when it was dealt in integrated teaching manner.

Conclusion

Students find integrated teaching more useful and easy to understand difficult topics. We recommend incorporation of integrated teaching regularly in MBBS curriculum. Pre assembly workshop helps to improve the efficiency of the module of teaching.

Keywords: Integrated teaching, Didactic lecture, Student learning

Introduction

Teaching in most of the medical colleges is a process which is followed mainly in the form of didactic lectures as per the Medical Council of India (MCI) curriculum. Here there is passive absorption of information in a disciplined manner by the students and at the end of one or one and half year, the knowledge gained is tested in a competitive manner during summative assessment university examinations.

Most of the times there is duplication, time consumption and overlapping of topics taught in the entire course. These can sometimes act as lacunae in the qualitative and quantitative advancement in medical education and also in the achievements of health care system. The above

deficiencies can be overcome by implementing integrated approach to teaching.

Integration is defined as organization of teaching matter to interrelate or unify subjects frequently taught in separate academic courses or departments.¹ Integrated teaching involves the teaching of various subjects in a co-ordinate fashion, so that the boundaries of the subjects are abolished and the teaching is system wise rather than subject wise.² This makes learning process more holistic, methodical and planned. The integration ladder is a useful tool for the medical teacher and can be used as an aid in developing, implementing and evaluating the medical curriculum. The integration ladder has 11 steps from subject based to integrated teaching and learning.³

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When we teach students by the conventional method of teaching, the students gain reasonably sound knowledge of medical science, but they are often found deficient in correlating the symptoms and disease, which forms the core of clinical competence. The integrated teaching methodology provides multifocal benefits to the students, faculty and the institution as a whole. The MCI has also recommended both horizontal and vertical integration to be introduced throughout the medical curriculum.

The present study assessed the impact of integrating physiology, pathology and biochemistry department faculty to teach “Anaemia” for I MBBS students. The topic chosen was Anaemia, which is one of the important diseases encountered in our country and is taught by various departments at different times during the curriculum.

Methodology

The design of study was prospective and questionnaire based. The study was conducted on 113 first MBBS students who were liking to participate in the study. They were exposed to didactic lecture and integrated lecture modules. The didactic lecture on erythropoiesis and anaemia was taught by faculty member from department of Physiology for 60 minutes, while integrated lectures on same topic was taught by Physiology, Pathology and Biochemistry faculty next day. 20 minutes were allotted for each faculty.

Students perceptions regarding the given teaching learning method, was assessed using a pretest 10 item questionnaire with closed questions. The responses were obtained with a 5 point Likert⁴ scale (Each item was rated as 5 - strongly agree, 4 - agree, 3 - neither agree nor disagree, 2- disagree and 1- strongly disagree). The questionnaire had items related to teaching, discussion during/after sessions, benefits experienced due to teaching learning method and its significance. Face and content validity of the questionnaire was checked by experts in medical education research of the Institution. Data analysis was done using SPSS version 10.0 to interpret the students response.

Results

A total of 113 students participated in the study. Feedback was obtained by all the students.

Fig 1 - Preferences for theory teaching methods by students

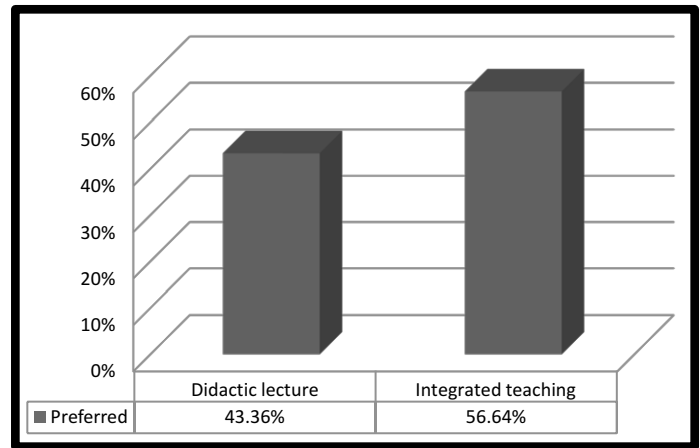


Fig 1 shows that 56.64% of students preferred integrated teaching over didactic lecture, which was preferred by 43.36% of them.

61.9% students felt that understanding the content of subject was quite a bit useful (Likert score – 4) from integrated teaching. 39.82% of them said it was quite a bit easy (Likert score – 4) to understand difficult topics when it was dealt in integrated teaching manner. 29% students stated that duplication of similar points during integrated lecture caused diversion and made the session less interesting. 46% of them agreed (Likert score – 4) that integration of knowledge was better with integrated teaching when compared with didactic lecture.

Discussion

Integrated teaching aims at giving the undergraduate students a holistic outlook on their studies. In medical field it is very important to put together the learned facts with the present scenario and treat the patient or plan a new treatment strategy. Treating of patients should always have a holistic approach for better results and can be attained by well trained doctors. Integrated teaching is one of the teaching learning methods which help in correlating the symptoms, signs and diagnosis. Few researchers have reported students feeling faculty as the weakness especially due to monotonous teaching, time management and repetition of slides.⁵ For an efficient integrated teaching programme, it's important to plan for theme of topic, sequencing of topics and contents of each topic. To accomplish this, teachers participating in integrated teaching programme have to organize, plan, discuss with interdepartmental members and do a pre assembly workup. These pre assembly activities require time and dedication on the part of teachers and subject experts to achieve good results.⁶

Our study shows that integrated teaching is effective for better understanding of subject and improvement in

learning which is also documented by many researchers.^{6,7,8} The overall impact of the session was encouraging. Many students preferred that integrated teaching as a good method of teaching and can be conducted once in a fortnight for topics which are covered in all the three preclinical subjects. They also felt that integrated teaching helped in better understanding of a particular topic. Few students also felt that integrated teaching consumes more time, and there is repetition of points (29%). For reinforcement of the topic through repetition of some points help, proper pre assembly workshop is essential to avoid unnecessary repetition. Enough time has to be spent on pre assembly meetings on the points to be reinforced and also the extent of repetition required in the session. This will bring up transparency and avoids boredom for students.

Feedback obtained on integrated teaching method revealed an encouraging response from the I MBBS students and also highlighted the pitfalls encountered. Thorough planning of integrated lecture program for pre assembly content modification by interdepartmental teachers may prove to be a influential teaching technique and a successful learning approach for students.

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