

Integrated Teaching in Medical Curriculum – Undergraduate Students Perception

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Abstract

Background: Today's medical students are living in omnipresence of traditional & modern teaching methods. The need & perception of medical students about learning & teaching methods is very different from previous era students. We as medical teachers need to know their perceptions about teaching methods in various aspects like advantages & disadvantages, impact to students of used technique. One of the best methods to know about student's perception is taking feedbacks from them. We can modify & improve our methods of teaching accordingly to cater them in best possible ways. **Objectives:** To analyse student's feedback regarding their views about integrated teaching, for modifying the teaching methods for better improvement of students, to evaluate the effectiveness of integrated teaching. **Methodology:** A cross sectional study was conducted on integrated teaching from medical students of first year M.B.B.S. Feedback from students were taken on Multidisciplinary integrated teaching by faculty of Anatomy & Physiology. **Result:** Students enjoyed the integrated teaching more than the regular didactic method, it is good practice and there is a need of horizontal integration in anatomy and physiology. **Conclusion:** Integrated teaching is better appreciated and strongly demanded by the students.

Keywords: Integrated Teaching, Medical curriculum, Students perception.

Date of Submission: 03-05-2018

Date of acceptance: 18-05-2018

I. Introduction

Goal of any teaching methodology in medical education is producing & nurturing good physicians. This is possible only if these future physicians are able to understand, enjoy & adapt well in present teaching method. In medical education teaching methodologies are of various pattern across the world^[1,2]. One of the most common methods is didactic lecture. It has been noted that with didactic lectures students are not happy as it become monotonous, time consuming with inadequate retention of knowledge^[3]. In addition to these there is scarcity of medical teachers in medical colleges¹. To address these issues medical council of India and Maharashtra University of health sciences decorated a new stream by incorporating integrated teaching in medical curriculum^[4,5]. In integrated curriculum there is coordinated combination of optimum contents & teaching learning methods from different subjects for more effective learning by students giving wholesome approach^[6,7,8].

Reality is ultimately a selective act of perception & interpretation. A shift in perception & interpretation enables us to break old habits & awaken new possibilities for balance & transformation – David Simon. As said by Simon, it is must to review the change in medical education to improve the methods which are more realistic for that particular era of medical students^[9]. New generation students are more exposed to vast information with Google as teacher also need to do multitasking due to other priorities. Their perception about learning & teaching methods is very different from previous era students. We as medical teachers need to know their perceptions about teaching methods in various aspects like advantages & disadvantages, impact to students of used technique^[10]. One of the best methods to know about student's perception is taking feedbacks from them. Taking feedback is very handy and inexpensive method to know about advantages and disadvantages of any technique^[11]. We can modify the methods according to this feedback & it also helps us to improve our methods of teaching to cater them in best possible ways.

There are things known & there are things unknown & in between are the doors of perception. Hence, by knowing perception of students about the teaching methodology we medical teachers can open our doors to unknown part of teaching methodology which may improve tomorrow's doctors. In our study we have tried to analyse the perceptions of students about horizontal integrated teaching in first year MBBS students which is need of the day in medical education.

II. Aims And Objectives

2.1 Primary

- To analyse students feedback regarding their views about integrated teaching.

2.2 Secondary

- To analyse students feedback for modifying the teaching methods for better improvement of students.
- To evaluate the effectiveness of integrated teaching.

III. Methodology

- A cross sectional questionnaire based study of medical students of first year M.B.B.S.
- Institutional Ethics Committee permission was taken before starting the study.



figure1: methodology

- Study duration was six months from the date of approval of IEC.
- Study site was department of Anatomy and Physiology, R.G.M.C. and C.S.M. Hospital.
- Confidentiality of participants was maintained throughout the study.
- The study tool was a predesigned questionnaire adapted from previous studies with some changes to suit local environment.
- Those who were not willing to participate or did not return the questionnaire within the stipulated time were excluded.

IV. Result And Analysis

A written informed consent was obtained from the students before enrolling them into the study. Total 62 students had participated in the study out of which 40% were female and 60% were male students. Mean age of the student was 19 years with variation 1.5 years.

Out of 62 students, 97% of students agreed that integrated teaching method is good practice and 95% students said that there is a need of integrated teaching in anatomy and physiology.

At the end of the session, evaluation was done by feedback questionnaire of students. Students have given the ranking from 1 to 10 to the efficacy of integrated teaching. Here author has assumed that 1 is worst score and 10 is best score. Hence students who gave score up to 5 was considered as average, score upto 8 as good and score for 9 & 10 as Best. Hence 3% students agreed that integrated teaching method is at average level practice, 71% of students agreed that integrated teaching method is good practice and 26% students approved that it is the best technique of teaching. 95 % students were saying that there is a need of integrated teaching in anatomy and physiology. Almost 89% enjoyed the integrated teaching lecture than the regular didactic method.

Table1:Students’ Response To Feedback Questionnaire

Questions related to Integrated teaching	Student’s Response (%)			
	More	Moderate	Less	Not at all
Importance of Integrated teaching	40.98	55.74	1.64	1.64
Clarity of topic	41.91	53.23	1.61	3.23
Fragmentation	28.33	51.67	20.00	0.00
Repetition	00.00	30.65	58.06	11.29
Time consumption	4.84	30.65	50.00	14.52

Above table shows that more than 50% students are giving moderate response for importance of teaching, clarity of topic and fragmentation. However, more than 50% students are giving less response for repetition and time consumption.

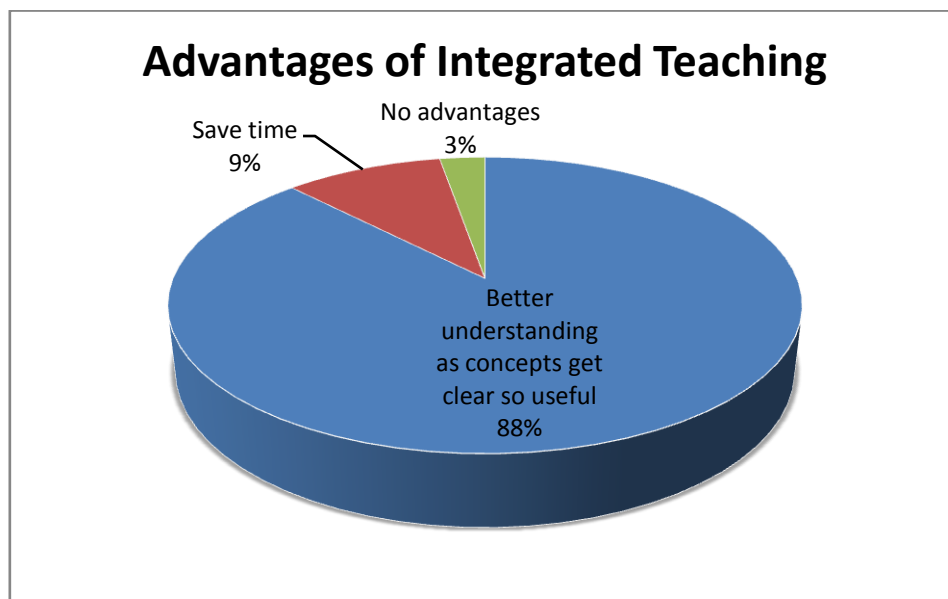


figure 2: advantages of integrated teaching

Author has categorized advantages of integrated teaching technique as better understanding of concepts, saves time. As per Fig.2, 88% responses reported that because of integrated teaching technique they could understand the subject conceptually.

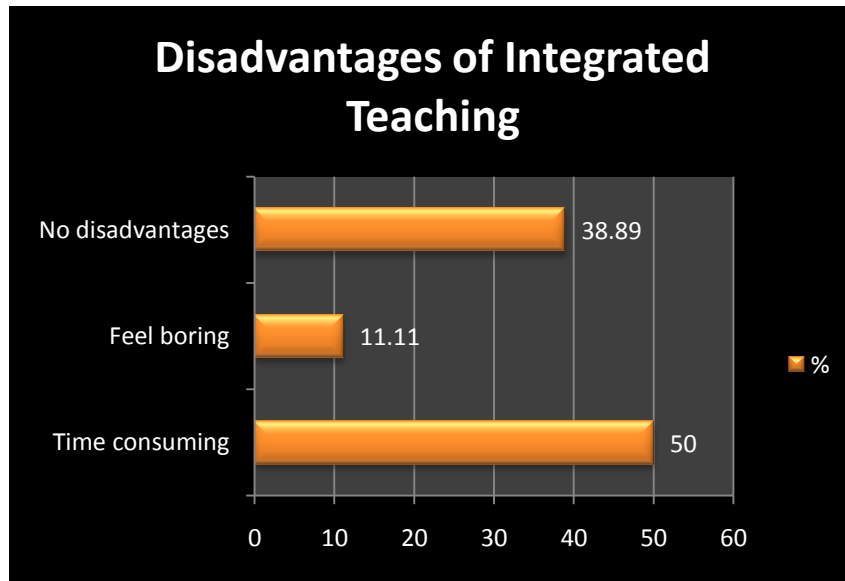


figure 3: disadvantages of integrated teaching

Fig. 3 shows that 50% count responses are saying that this technique is time consuming. From whole group of 62 students, 29% students have not attempted the question about what they have liked from session. 76 % participants liked the co-relation with clarity of concepts of topic, 18% liked the session as it saved time & 6% didn't like anything from this session. Students suggested for more such sessions with lesser duration, better implementation & to make more interactive. The topics suggested for horizontal integration in Anatomy & Physiology by majority of students are Reproductive system and Central Nervous System.

V. Discussion

The main purpose of applying new teaching-learning methods is not only to deliver the knowledge in such a way that it is easy for the students to understand but it must fill the drawbacks present in current medical curriculum. Reviewing & re-reviewing is dynamic & continuous process to overview the alignment of objective & outcomes. By keeping this in mind we have taken the feedbacks from the students about integrated teaching which has been incorporated by Medical Council of India as well as Maharashtra University of Health Sciences^[12,16,19,27]. In our descriptive study we got positive response regarding advantages of integrated teaching. We found that students agreed that they enjoyed the integrated teaching more than the regular didactic method, it is good practice and there is a need of horizontal integration in anatomy and physiology findings similar to other studies^[15,17,20,22,23,24,26].

According to the students integrated teaching is important as it helps to clear concept of the topic leading to better understanding with less fragmentation, reduces repetition as well as it is less time consuming analogous to other studies^[13,14,18,21,25,29]. But at the same time few students have mentioned that it is time consuming^[8,19,28]. This difference of opinion about time consumption may be due to our multidisciplinary approach of integrated teaching. As in this approach different subject's teachers teach in continuation, this may give false impression of consumption of time as one topic taught for longer time with less breaks in between. When we have counterchecked with the time allotted in syllabus, previous year experience & time consumed by us for actual teaching there was surely saving of time for conducting the session. 11.11% students opined that they felt bored during integrated lecture. 38.89% students are of the opinion that there are no disadvantages of integrated teaching method.

With open ended questions students suggested for more sessions with short duration including question-answer session with better implementation^[5,8,9,13,16,29]. They have also given hint for the topics which they will appreciate more if taken integrated. The topics which are proposed by majority of students are mainly central nervous system, reproductive system, cardiovascular system and few students have also mentioned about gastrointestinal system, embryology and clinical cases. We need to overcome the hurdles of integrated teaching implementation by proper planning and co-ordination among medical teachers. In present curriculum there are very few topics which are incorporated in syllabus. This can be reviewed and more topics can be included as the demand of students.

VI. Conclusion

Present study concludes that integrated teaching is better appreciated and strongly demanded by the students. It is need of time to amalgamate in regular teaching methods. It is also required to incorporate more topics of integrated teaching in syllabus for uniform & well-planned implementation across the medical colleges. The limitation of this study was small sample size which can be defeated by involving multiple batches or metanalysis. Present study can be expanded to evaluate long term impact of integrated teaching in terms of retention of knowledge, conceptual learning etc. which can be decisive factor for its incorporation with regards to time, content, topics.

Acknowledgement

We are thankful to Dr. Sandhya Khadse Dean, Dr. Kamkhedkar H.O.D. Anatomy, Dr. Bhattacharya H.O.D. Physiology and all the participant medical students and those who directly as well as indirectly helped us to complete this study from Rajiv Gandhi Medical College, Kalwa, Thane.

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Shilpa K. Kolhe. “Integrated Teaching In Medical Curriculum – Undergraduate Students Perception.” *IOSR Journal of Research & Method in Education (IOSR-JRME)* , vol. 8, no. 3, 2018, pp. 01-06.