

PERCEPTIONS OF SECOND PROFESSIONAL MBBS STUDENTS ABOUT INTEGRATED TEACHING AND LEARNING PROCESS

Dhanya Thirookaran Harichandran¹

¹Assistant Professor, Department of Pharmacology, Government Medical College, Thrissur.

ABSTRACT

BACKGROUND

Traditional teaching is didactic, discipline wise model, passive, teacher centered and compartmentalized. Integrated teaching is organization of teaching methods to interrelate or unify subjects frequently taught in separate academic courses or departments. Integrated teaching is the need of the hour. MCI recommended integrated teaching since 1997. Students are expected to get a holistic and not fragmented approach on the subjects. It bridges academic knowledge with real life practice. The process also encompasses strategies for linking basic and clinical science from the classroom to the bedside. It helps improve cognitive, psychomotor domain and skill of students to correlate clinically. Students trained in integrated teaching used more accurate diagnosis than did students taught by conventional teaching. Needs and trends of students are changing, and role of education is being redefined. Student perception forms valuable input into curriculum modification and review. Impact evaluation is learning the student's perception and attitude. Hence this study was done to explore, analyse and document the perception of second MBBS students as stakeholders in medical education by taking feedback after exposure to Horizontal integrated teaching as a new teaching learning method.

MATERIALS AND METHODS

It was a cross-sectional study. A meeting was held by the heads of Para-clinical (Pharmacology, Microbiology, Pathology, Forensic medicine and Community medicine) departments. Topics were allotted to students for preparation and faculties were assigned to assist them. Feedback was taken from the Second professional MBBS students consisting of both genders, in an anonymised manner. A predesigned 25 points Structured Questionnaire based on the literature review having open and close ended questions was used. Each question in the questionnaire used a 5-point Likert scale (Strongly Agree to Strongly Disagree) for assessment. Respondents were required to indicate their agreement or otherwise with each item by ticking one of the five alternatives. Participation in the study was voluntary. Sufficient time was given to complete the questionnaire. Data collected was analysed using Epi info 7. Institutional Research Committee and Institutional Ethics Committee clearance was obtained before starting the study.

RESULTS

46.51% students agreed that they need to be oriented to integrated teaching. 43.41% agreed that Integrated Teaching helps in appreciation and application of basic science knowledge in health and disease and 36.15% also agreed that integrated teaching will help improve the performance in clinics and university exams. 48.46% agreed that the topics discussed during integrated sessions were relevant and 37.69% strongly agree that topics should focus more strongly on the health problems of our country with special emphasis on locally prevalent diseases. 35.71% agreed that time allocated for the session was adequate and 51.54% strongly agreed that exam related topics should be discussed in the sessions. 10.08% strongly agreed that integrated teaching develops logical thinking, provides extra knowledge and 17.83% agreed that integration encouraged their intellectual curiosity and provoked them for self-reading and learning.

CONCLUSION

Students do welcome the concept of integrated teaching. Feedback of the students was positive and constructive. Meticulous planning of integrated lecture program with purposeful pre-session workup with interdepartmental faculty will prove to be powerful teaching technique and effective learning approach for students.

KEYWORDS

Perception, MBBS Students, Integrated Teaching.

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BACKGROUND

Traditional teaching is didactic, discipline wise model, passive, teacher centered and compartmentalized. Integrated teaching is the need of the hour.¹ Integration is organization of teaching methods to interrelate or unify subjects frequently taught in separate academic courses or departments.² In USA integrated curriculum has become a

norm and in UK a System based learning process is ongoing. In India MCI recommends integrated teaching since 1997. It is also mentioned till vision 2015.^{3,4}

In integrated teaching students get a holistic and not fragmented approach on the subjects. It bridges gap between academic knowledge with real life practice.⁵ The method has strategies for linking basic and clinical science

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 Corresponding Author:
 Dr. Dhanya T. H,
 Assistant Professor,
 Department of Pharmacology,
 Government Medical College, Thrissur.
 E-mail: dhanya.th7@gmail.com
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from the classroom to the bedside. Improvement in cognitive psychomotor domain and skill of students to correlate clinically are two main outcomes expected out of integrated teaching and it benefit society as clinicians who are well equipped comes out of the medical education.¹ Students trained in integrated teaching used more accurate diagnosis than did students taught in conventional teaching.³

Needs and trends of students are changing, and role of education is being redefined.⁶ Student perception form valuable input into curriculum modification and review.⁷ Impact evaluation is learning the student's perception and attitude.⁸ Hence this study was planned to explore the student perception to the newly introduced concept of integrated teaching as a new teaching learning method.

Objective

To study the perceptions of students after exposure to horizontal integrated teaching as a new teaching learning method.

MATERIALS AND METHODS

It was a Cross-sectional study conducted in a tertiary care teaching institution. Institutional Research Committee and Institutional Ethics Committee clearance was obtained before starting the study. The study population included Second professional MBBS students attending classes in Pharmacology, Microbiology, Pathology, Forensic medicine and Community medicine.

A time table was framed following a meeting held by the heads of Para-clinical (Pharmacology, Microbiology, Pathology, Forensic medicine and Community medicine) departments. Topics were allotted to students for preparation and a faculty each was assigned to assist them. Students had to prepare the topics and present the same in the integrated teaching class. After the classes student feedback was taken from all second professional MBBS students consisting of both genders. A short briefing about the aims and objectives of this study was given. It was also explained that the data would be used for quality assurance, as well as, for research purpose with a request for their co-operation.

Structured Questionnaire having open and close ended questions was used with predesigned 25 points based on the literature review keeping in mind the utility of the integrated teaching. Each question in the questionnaire used a 5 point Likert scale (Strongly Agree to Strongly Disagree) for assessment. There was a space for suggestions. Likert Scale, is a psychometric response scale primarily used in

questionnaires to obtain participants preferences or degree of agreement with a statement or set of statements. Likert scales are a non-comparative scaling technique and are uni-dimensional (only measure a single trait) in nature. Respondents were asked to indicate their level of agreement with a given statement by way of an ordinal scale. Likert scale is a responder scale.

The Questionnaire was distributed to the students. Respondents were required to indicate their agreement or otherwise with each item by ticking one of the five alternatives. Sufficient time will be given to complete questionnaire. Participation in the study was voluntary. Filling up of the form was taken as willingness to participate in the study. They were asked not to reveal their identities, in order to make them express themselves freely. Data obtained was entered in an excel sheet and analysed using Epi info 7. Response to feedback questionnaire forms was obtained from students to find their level of satisfaction and to evaluate their response with respect to activities related to implementation as well as to analyse merits and demerits of integrated teaching.

RESULTS

To the twenty-five questions in the questionnaire students responded in the following Likert scale points. To the question whether they should be oriented to the importance of Integrated Teaching, 46.51% agreed that they need to be oriented. 43.41% agreed that Integrated Teaching helps in appreciation and application of basic science knowledge in health and disease and 36.15% also agreed that integrated teaching will help improve the performance in clinics and university exams. When comparison between integrated teaching and traditional teaching was asked 33.85% gave a Neutral opinion. 48.46% agreed that the topics discussed during integrated sessions were relevant and 37.69% strongly agree that topics should focus more strongly on the health problems of our country with special emphasis on locally prevalent diseases.

To the question whether there was correlation of the given topics between paraclinical with clinical subjects 38.28% agreed that there was integration. A neutral opinion was given by 33.86% on whether there was interaction between student and faculty during the integrated teaching program. 35.94% had a neutral perception as to conducting Integrated teaching more often. 35.71% agreed that time allocated for the session was adequate and 51.54% strongly agreed that exam related topics should be discussed in the sessions. When asked whether it should be conducted in all the semesters of MBBS, only 19.53% students strongly agreed. 38.58% agreed that presentation of the topics by students improves involvement in learning and helps in retention of the subjects. 10.08% strongly agreed that integrated teaching develops logical thinking, provides extra knowledge and 17.83% agreed that integration encouraged their intellectual curiosity and provoked me for self reading-learning.

Regarding whether the new concept improved the understanding of the topics or diseases 47.24% agreed that

it did improve and 10.08% strongly agreed that it will be helpful in improving clinical skills and orients to clinical scenario. 36.22% agreed that it will improve the application of knowledge and broaden the horizon about the medical applications in various situations. 41.73% agreed that a knowledge base will be created that will help them with the rational choice of drugs during future practice.

Whether it was a revision of topics covered in theory & practical class, 46.88% agreed that there was revision of topics. 34.11% had a neutral opinion on whether it was time consuming and cuts down the time of self-study. 19.53% agreed that discussion during the session was lucid and clear and 24.22% agreed that they were given an opportunity to clear their doubts. 36.72% agreed that collaborative involvement by multiple teachers of different departments made explanations simplified and clear.

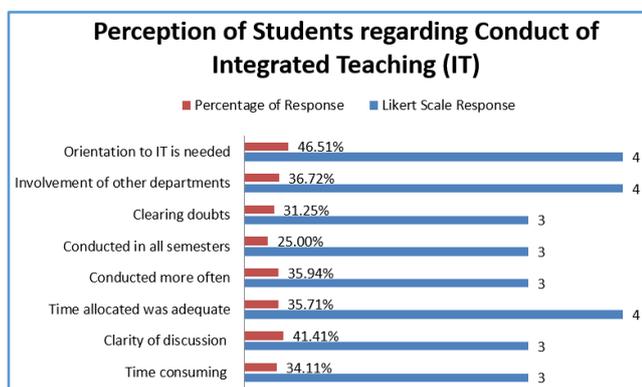


Figure 1

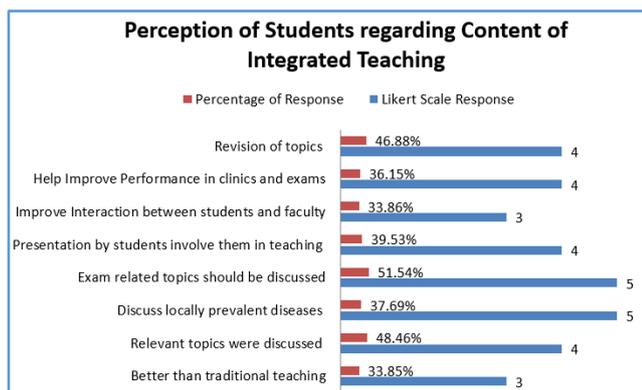


Figure 2

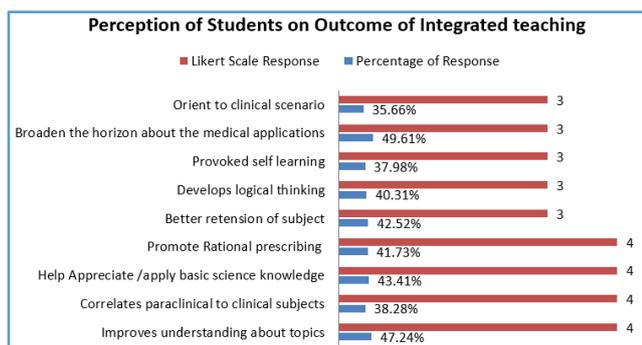


Figure 3

DISCUSSION

There are various studies which have evaluated the perceptions of students to integrated teaching. Jessica et al concluded that for effective integrated classes the curriculum should be well equipped, and sessions should be well planned.³ In a study by Raman et al 95% students opined that integrated teaching improved their understanding and learning skills, enhanced their intellectual curiosity and brought clarity in the concepts. They also express that it will help them later in clinical practice and helped them perform well in theory exam. But some students did mention the disadvantages of integrated teaching that there is repetition which is distracting them and cause boredom. They were for periodical sessions of integrated classes. Practical points discussed and interaction which came out of classes was well appreciated by students.⁵

In this study 43.41% agreed that Integrated Teaching helps in appreciation and application of basic science knowledge in health and disease and 36.15% also agreed that integrated teaching will help improve the performance in clinics and university exams which is less when compared to the results of the study by Raman et al. But the perception of majority of student was that they agreed that integrated teaching is useful.

Studies by Zaheda et al, showed that students felt integrated teaching to be a complete package to enhance their interest in subjects and knowledge. It was useful and made way to create new ideas when compared to traditional teaching.⁹ In this study students perception when asked to compare between integrated teaching and traditional teaching 33.85% gave a Neutral opinion

The results of this study were similar to the studies by Tripathi et al and Madhuri et al, where students welcomed the concept of integrated teaching and that new horizons are being opened to them in teaching learning process. They also confirmed that integrated teaching did improve the understanding and skills of the students, intellectual curiosity and clarity in the subjects along with better orientation to clinical practice. Students also agreed that their academic performance will improve with integrated teaching.^{10,11}

Majority of the observations in studies by Mausumi et al, Swapnali et al and Kalpana et al were recorded in this study also. They expressed that students appreciated that with integrated teaching they were able to apply basic science knowledge. But the students had a better perception about integrated teaching that they preferred it over traditional teaching. They also mentioned that integrated teaching did save their time and energy, and gave them better insight into the subject.^{12,13,14}

In a study by Prasad et al students felt that integrated teaching was useful and should be continued. Negative perception put forward by students were that it was time consuming, cuts down the time of self-study and was lengthy.¹⁵ The perceptions of students in this study was different from that in the above study, where only 34.11% students had a Neutral opinion that it was time consuming.

CONCLUSION

The results obtained in this study conclude that students do welcome the concept of integrated teaching. Feedback of the students was positive and constructive. They perceived that integrating basic sciences will improve their learning skills, blend basic sciences with clinical subjects and is a platform to clear their doubts, get better understanding of various concepts in the subjects and improve their communication skills and interaction with the teachers. Meticulous planning of integrated lecture program with purposeful pre-session workup with involvement of faculties of all departments will prove to be powerful teaching technique and effective learning approach for students.

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