



PERCEPTION OF FIRST YEAR MBBS STUDENTS TOWARDS ECE (EARLY CLINICAL EXPOSURE) IN PHYSIOLOGY.

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ABSTRACT

Introduction : Early Clinical Exposure is a teaching learning method which enables student to learn basic sciences effectively and retain the information which benefits patient and promotes better patient care. **Methodology :** Hundred students selected after applying inclusion exclusion criteria divided into 2 groups A and B taught basal ganglia and thyroid physiology in conventional method and other in ECE integrated method respectively and after interchanging groups, demonstrating the clinical features of parkinsonism and hypothyroidism for ECE group. A pretest and post-test were conducted preceding and following lecture in both settings. **Results :** The results obtained were interpreted using excel. The mean of pre-test marks for Traditional teaching and ECE integrated teaching are 5.62 ± 2.42 and 4.58 ± 2.33 respectively and the post-test scores of Traditional and ECE teaching are 10.62 ± 2.52 and 12.8 ± 2.46 respectively. **Discussion :** Majority considered that the synchronisation of classroom learning with clinical experiences was beneficial, and the majority believed that integrated teaching improved understanding of the practical applications of physiology. **Conclusion :** Through this study we conclude that ECE integrated teaching is more effective in imparting knowledge in first MBBS students as the gap of imagination was bridged by live demonstration with help of patient which is reflected in the Likert scale and in the scores. Though the ECE integration is a tough job for the teacher, it is a great learning tool for students.

KEYWORDS : Early Clinical Exposure, Traditional teaching, conventional teaching, Likert scale, Clinical demonstration, First MBBS, Pre-test, Post-Test.

INTRODUCTION

The three pillars of medicine are anatomy, metabolism, and physiology. Students will understand the significance of the topic and be able to integrate it with clinical sciences if it is taught in a clinical setting, such as through early clinical exposure (ECE). "Adequate emphasis is to be placed on cultivating logical and scientific habits of thought, clarity of expression and independence of judgement, ability to collect and analyze information and to correlate them," states Medical Council of India (MCI) regulations on Graduate Medical Education from 1997(1). It is necessary to cultivate this mindset. It has been found that students comprehend and remember information better when physiology is taught in a clinical setting. This has made it necessary to combine clinical studies and physiology. It can be accomplished by introducing ECE to first-year UG students, as suggested by the MCI Vision 2015 paper.(2) ECE will in turn stress the value of learning physiology. The retention of basic science information is found to be influenced by perceptions of clinical relevance, so curriculum designers must make clinical relevance a more significant part of instruction throughout the medical curriculum. (3) ECE aids students in grasping a subject better, makes learning more applicable, enhances memory function, and enables them to connect clinical conditions to fundamental sciences. (4) ECE enhances students' interpersonal interactions, fosters professional growth, inspires them to learn more, and deepens their knowledge of the role that they will play as future medical professionals.(5) Additionally, it is clear that the students value ECE because it improves their retention of the material and aids in the integration of their learning.(6) It can be concluded that training physiology in a clinical setting is essential for betterment of student.

MATERIALS AND METHODS

This interventional crossover study involved 100 MBBS first-year students who were chosen at random from a pool of 100 participants after receiving permission from the institutional ethics committee. First-year MBBS students who gave their consent for the study and had no prior knowledge of the topics taught during the study were included in the study; second, third, and final-year MBBS students who did not give their

consent for the study and had prior knowledge of the study's topics were excluded. Based on basic random sampling, 100 first-year medical students were chosen and split into two groups, A and B, each with fifty students. After obtaining written informed consent, Group A and Group B received instruction on the topic of the basal ganglia, with Group A receiving instruction using the conventional chalkboard and PowerPoint method and Group B receiving instruction using Early Clinical Exposure integrated teaching, which included a live patient to demonstrate the symptoms of Parkinson's disease. For ECE integrated teaching, the two groups were taught a second subject on thyroid, with the teaching strategies being switched around and the features on patients with thyroid disease being demonstrated. A pre-test and post-test using a single best answer MCQ (multiple choice question) format were performed to compare the knowledge levels of the two groups. To avoid bias, fresh hall ticket numbers were distributed at random to the students. A 5-point Likert scale survey was used to gauge pupils' attitudes towards ECE. For comparison, the pre-test and post-test exams were scored and the results recorded against the hall ticket numbers. Excel software is used for analysis and interpretation of the data gathered using a 5-point Likert scale.

RESULTS

The study compared the pre-test and post-test scores of students in two different types of classes: Traditional Teaching and Early Clinical Exposure (ECE) integrated teaching. The pre-test scores for traditional method and ECE integration were 5.62 ± 2.42 and 4.58 ± 2.33 , respectively (Fig:1). The post-test scores for Conventional traditional and ECE teaching were 10.62 ± 2.52 and 12.8 ± 2.46 , respectively (Fig:2). The results revealed that the knowledge gained through ECE integrated instruction was significantly higher than that of traditional education, with a p-value of 0.001. Furthermore, based on a 5-point Likert scale, students reported greater engagement in ECE integrated classes than in traditional classes. As a result, the students recommended their friends to take the ECE integrated classes. Moreover, the ECE integrated session improved the students' comprehension of the main ideas, with an average score of 80%. In terms of knowledge

and interest, students are more likely to favour ECE integrated instruction.(Fig:3)

Fig: 1 Mean Pre-test Marks. Fig: 2 Mean Post-test Marks.

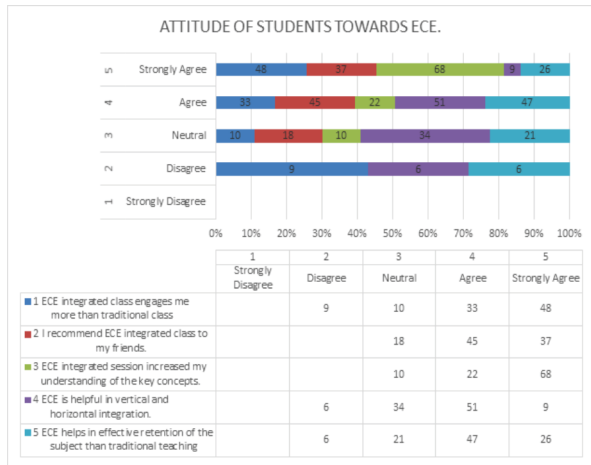
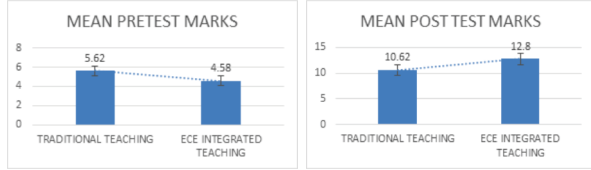


Fig: 3 A Five Point Likers Scale Questionnaire Showing The Attitude Of Students Towards Ece When Compared To Traditional Teaching.

DISCUSSION

The findings of our study imply that ECE is a fun and engaging teaching method. It aids in conceptual development, aids in the correlation of physiology and clinical sciences, and also it should definitely remain as a part of the curriculum. Before they can engage with patients, medical students must first spend a year learning the fundamental sciences. Making physiology engaging for the students and helping them appreciate the significance of the subject are the key issues facing this undergraduate programme. A variety of computer-assisted modules have been tested to address these issues, but their viability is constrained.(7) ECE highlights the value of learning basic sciences and aids in the teaching of physiology in a clinical setting. The majority considered that the synchronisation of classroom learning with clinical experiences was beneficial, and the majority believed that integrated teaching improved understanding of the practical applications of physiology.(8) The pre-test/post-test model with a calculation of various measures of learning gain provides an objective and informative means to document learner performance and demonstrate the effectiveness of the educational intervention. The students' satisfaction and their positive attitude toward ECE suggested that this interventional study improves the quality of basic science courses and adds substantial relevance to clinical application.(9)

CONCLUSION

After the introduction of ECE in the MBBS curriculum the students ability, interest towards the classes, retention have significantly improved when compared to the traditional old teaching methods. Early Clinical Exposure taking help of patients and demonstrating the clinical features face to face in class from the first professional year has improved the correlation of applied aspects with other subjects and within the same subject both vertically and horizontally. As per this study we would like to emphasize that ECE it makes the teaching as well as learning fun and interesting for students.

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