



ادراک دانشجویان دوره اول پزشکی نسبت به اجرای مواجهه بالینی اولیه در برنامه درسی پزشکی مقطع کارشناسی

دیبیتی موهاپاترا^۱، پراکاش کومار ساهو^۲، آراتی موهانتی^۱، تاپسوینی میشر^{۱*}، آراتی مهر^۱

۱- گروه فیزیولوژی، بیمارستان IMS و SUM، سیکشا او آنوساندان، دانشگاه بوپانشار، اودیشا، هند.

۲- گروه جراحی، بیمارستان IMS و SUM، سیکشا او آنوساندان، دانشگاه بوپانشار، اودیشا، هند.

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چکیده

مقدمه: مواجهه بالینی اولیه (ECE) یک روش آموزشی است که در آن دانشجویان پزشکی بسیار قبل از مرحله بالینی خود، یعنی از سال اول پزشکی، با بیماران مواجه می‌شوند. مواجهه بالینی اولیه در سال‌های اخیر در برنامه درسی پزشکی معرفی شده است تا شکاف بین بخش‌های بالینی و پایه را پر کند و به دانشجویان کمک کند تا آموزش علوم پایه را با مفاهیم بالینی مرتبط کنند.

مواد و روش‌ها: هدف از این مطالعه، تحلیل ادراک دانشجویان نسبت به معرفی مواجهه بالینی اولیه در فیزیولوژی بود. این مطالعه در گروه فیزیولوژی انجام شد. این مطالعه پس از اخذ مجوز اخلاقی سازمانی و رضایت کلیه شرکت‌کنندگان انجام شد. در مجموع ۱۱۵ دانشجوی دوره اول مقطع کارشناسی پزشکی برای شرکت در مطالعه داوطلب شدند. درک دانش‌آموزان در مورد ECE از طریق بازخورد آنها با استفاده از یک پرسشنامه از پیش تأیید شده حاوی سؤالات بسته و باز در مورد ECE جمع‌آوری شد.

نتایج: دانشجویان عنوان کردند که ECE روش مناسبی است که به ارتباط فیزیولوژی با موارد بالینی و درک اهمیت یادگیری فیزیولوژی کمک می‌کند. دانش‌آموزان پاسخ مثبتی نسبت به معرفی ECE در برنامه درسی جدید خود نشان دادند.

نتیجه‌گیری: ما به این نتیجه رسیدیم که دانشجویانی که در معرض جلسات اولیه بالینی قرار گرفتند، بیشتر از دانشجویانی که فقط در معرض یادگیری سنتی قرار داشتند، فراگرفتند. ما انتظار داریم ECE قطعاً علاقه بیشتری را در دانشجویان پزشکی به‌عنوان پزشکان آینده ایجاد کند و آنها را تشویق کند تا فراتر از کلاس‌های فیزیولوژی فکر کنند و روند بیماری را مطالعه کنند.

واژه‌های کلیدی: ECE، پزشکی، ادراک، کارشناسی.

*نویسنده مسئول: گروه فیزیولوژی، بیمارستان IMS و SUM، سیکشا او آنوساندان، دانشگاه بوپانشار، اودیشا، هند. تلفن: ۸۸۹۵۴۲۸۷۳۱، نمابر: ۸۸۹۵۴۲۸۷۳۱، Email: tapaswinimishra@soa.ac.in

ارجاع: دیبیتی موهاپاترا، آراتی موهانتی، تاپسوینی میشر. ادراک دانشجویان دوره اول پزشکی نسبت به اجرای مواجهه بالینی اولیه در برنامه درسی پزشکی مقطع کارشناسی. مجله دانش و تندرستی در علوم پایه پزشکی ۱۴۰۱؛ ۱۷(۲): ۶۷-۷۲.

Introduction

Early clinical exposure (ECE) is that teaching-learning methodology, in which the undergraduate medical students are exposed to the patients much before their clinical postings, i.e., as early as the first year of medical college (1). For years together, medical students spent their preclinical years in the classrooms and laboratories. In the traditional medical curriculum, the students used to gain theoretical knowledge in a clinical context without actually contacting the patient. At the same time, during their clinical years, they could not recall crucial basic science concepts. As a result, the medical students became thorough in basic sciences, but they lacked clinical experience (2). To overcome this, MCI, in its new curriculum, based on competency-based medical education (CBME), has recommended introducing ECE during training of 1st MBBS students and to bridge this gap between preclinical disciplines and clinical discipline (3). Therefore, different medical colleges in India have adopted various methods of ECE such as case-based discussions, patient-centred learning and hospital visits. The basis of introducing ECE in the preclinical years is to make the students understand the necessity of basic and laboratory sciences in the clinical scenario with the help of integrated learning (4). The MBBS students have to study the basic sciences for one year before interacting with patients in their clinical years. The major challenges in the undergraduate curriculum are making basic science subjects interesting for the students and impressing upon them the importance of the subject. Though different modules have been tried to solve these challenges, their feasibility is limited (5). ECE helps teach basic science subject like Physiology in the clinical context and helps to build concepts, that makes the subject more interesting and emphasizes the necessity of studying basic sciences. The study's main aim was to assess the perception of students towards Early clinical exposure in their curriculum.

Materials and Methods

Study design: The study was questionnaire-based study. The 3 hours allotted for ECE class as per the recent curriculum was divided into three parts of 1 hour each. In the first hour, all the participants were given a didactic lecture on a Physiology topic, "Iron Deficiency Anaemia" by a Physiology teacher. In the second hour, the same topic was elaborately discussed by a clinical teacher through case-based discussions emphasising its clinical features, differential diagnosis, investigations, and treatment. In the third hour the feedback on the ECE class was obtained from the participants using a pre-validated questionnaire used by Avjot K Miglani et al.(6) and Deolalikar et al.(7) containing close-ended questions.

Study setting: The study was undertaken in the Department of Physiology, IMS and SUM Hospital, SOA deemed to be university.

Participants: A total of 115 first phase medical students who volunteered for the study were included in the study. The study was started after obtaining ethical clearance from the institutional ethical committee and consent from all the participants.

Statistical analysis: The data were entered and analysed using Microsoft office Excel 2007 and SPSS version 21.0. . The perception of the students about ECE was obtained by taking feedback on ten closed ended items on five point Likert scale. Closed ended questions were analysed by the options chosen and with percentages.

Results

Table 1 shows the feedback of medical students about ECE. It shows that 52.2% of students agreed, and 26.1% of students strongly agreed that ECE is a more interesting teaching-learning method than a traditional lecture. 54.8% of students agreed, and 24.3% strongly agreed that ECE increased their attention in the class. 54.8% of students agreed, and 32.2% strongly agreed that ECE motivates them to study more about the topic. 56.5% of students agreed, and 42.6% strongly agreed that ECE helped me understand the topic better. 51.3% of students agreed, and 40.9 % strongly agreed that ECE had helped better retention of the topic. 53% of students agreed, and 35.7% strongly agreed that ECE helped correlate physiology with clinical cases. 48.7% of students agreed, and 34.8 % strongly agreed that ECE made me understand the importance of learning Physiology. 53% of students agreed, and 27 % strongly agreed that ECE should be incorporated as a teaching-learning method and regular lectures for other topics in physiology for undergraduates. 53% of students agreed, and 34.8% strongly agreed that ECE should be included as a teaching-learning method and regular lecture in other Basic Science subjects for undergraduates. 52.2% of students agreed, and 34.8 % of students strongly agreed that ECE must be introduced in the curriculum of basic sciences for future batches of MBBS students. From figure 1, shows that students found ECE to be a more interesting teaching learning method than traditional teaching methods. Figure 2 shows that the students opted for ECE over conventional teaching. It increased their attention in class, motivated them to learn more on the topic, understand the subject better, retain the topic for a longer time, correlate with clinical cases, and understand the importance of learning Physiology. As per figure 3 students recommended that ECE should be made a part of the basic science curriculum for future batches, it should be adopted as a teaching learning method in regular basic science classes, and it should be done for other Physiology topics also.

Table 1: Students' feedback about Early clinical exposure on 5-point Likert Scale

Sl. no	Questions	Strongly disagree (n%)	Disagree (n%)	Neither agree nor disagree (n%)	Agree (n%)	Strongly agree (n%)
1.	ECE is more interesting method of teaching -learning compared to traditional lecture	3.5	0.9	17.4	52.2	26.1
2	ECE has increased my attention in class	1.7	4.3	14.8	54.8	24.3
3	ECE motivated me to read more about the topic	2.6	0	10.4	54.8	32.2
4	ECE helped me to understand the topic better	1.7	0	9.6	56.5	32.2
5	ECE has helped me in better retention of the topic	1.7	0	4.3	51.3	42.6

6	ECE helped me in correlating physiology with clinical case	1.7	0	4.3	53	40.9
7	ECE made me understand the importance of learning Physiology	1.7	0	13.9	48.7	35.7
8	ECE should be incorporated as a teaching -Learning Method along with regular lectures for other topics in physiology for undergraduates	1.7	0	10.4	53	34.8
9	ECE should be incorporated as a teaching -Learning Method along with regular lecture in other Basic Science subjects for undergraduates	1.7	1.7	16.5	53	27
10	ECE should be made a part of curriculum in basic sciences for further batches of MBBS students	1.7	0.9	10.4	52.2	34.8

*n% is the percentage of students who responded

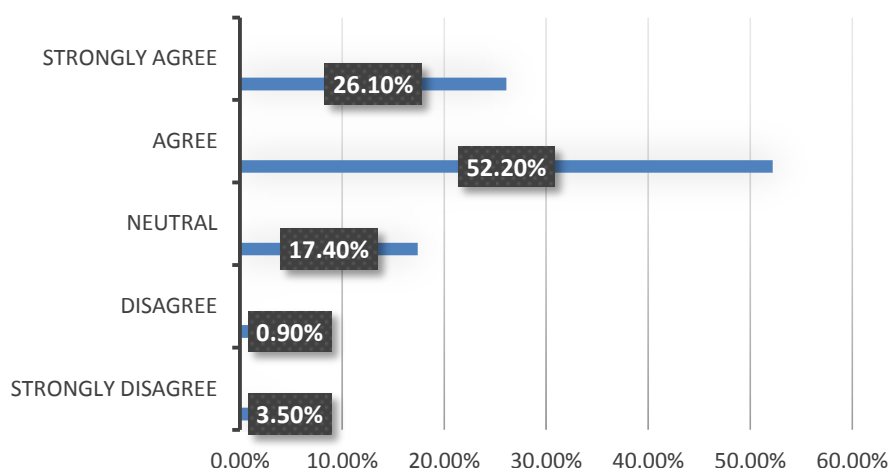


Figure 1: Students' perception of ECE as a more interesting method of teaching-learning compared to the traditional method of learning

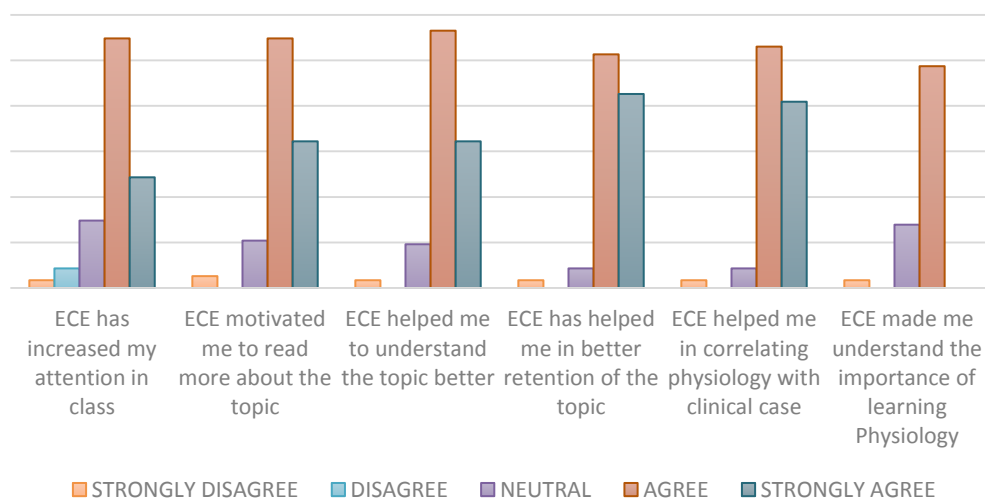


Figure 2: Students' perception about the advantages of introducing ECE with Physiology lectures

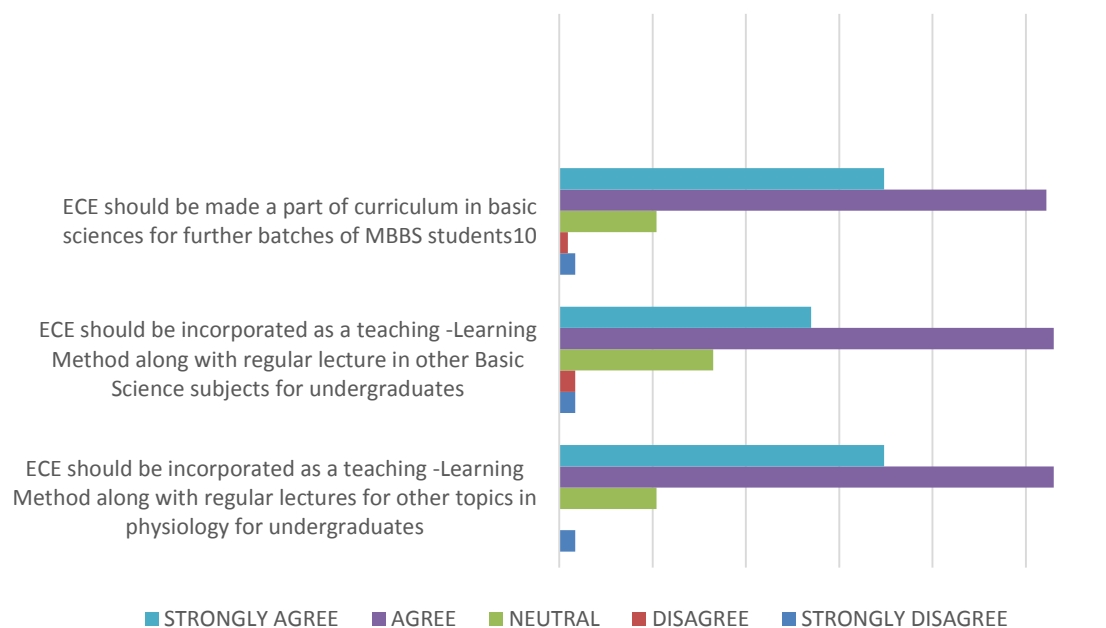


Figure3: Students' perception on including ECE in undergraduate MBBS Physiology curriculum

Discussion

ECE is one of the modus operandi in contextualizing medical education. It is defined as “A teaching and learning methodology where exposure of medical students to patients is as early as the first year of medical college, in a social or clinical context that enhances learning of health, illness or disease, and the role of the health professional.” There are three main forms of its implementation. First, is in a classroom setting where a patient can be brought and the basic science and clinical science teacher can discuss regarding the case in detail with the students. Second, the students can be taken to the hospital “wards/clinics” and made to understand the protocols and patterns. These two “patient encounters” can help the student enhance their skills and understand diseases and ailments. Third, form of patient exposure is that of the “community or underserved opportunity program. This helps to provide a context for basic science learning by integrating it with clinical dimension, but more importantly socio-clinical relevance and context to basic science learning. By this form of exposure, students look beyond signs and symptoms of disease and think in terms of prevention of disease and promotion of health. ECE gives an insight to the students into the entire system. Hence, ECE bridges the between preclinical or basic and clinical sciences. ECE is an example of “vertical integration” in medical education with a huge interdisciplinary contribution. As ECE is newly introduced under the CBME curriculum, taking students perceptions will help its successful implementation. The present study states that ECE was a better teaching-learning methodology than traditional teaching for medical students in the Indian scenario. The students' perceptions were also more positive towards early clinical exposure than the traditional teaching model. The objective of medical education should be student-oriented in which the student acquires all the three domains of knowledge, i.e.,

knowledge, skills and attitude. 8 The rapid changes in health care have led to experimentation by medical colleges by introducing clinical experience into the otherwise didactic first year. In this context, many medical colleges worldwide are now 'vertically integrating' practical knowledge into the first year of medical education courses to keep pace with the rapid change in health care and medicine, which is giving rise to corresponding rapid changes in the content of medical education.(9) The traditional structure of medical education created an almost impenetrable wall between the so-called preclinical basic sciences years and the clinical postings. Therefore the purpose for early clinical exposure in the 1st year is to learn basic clinical skills, enhance their motivation and prepare them towards the goal for which they entered the profession, enable students to correlate what they are learning in basic sciences by learning basics clinical skills and observing relevant disease abnormalities, encourage students to learn the professional behaviour of a doctor by watching and being mentored by a clinical teacher and provide the context for the application of their learning in practice.(10) Recently, several studies have been undertaken to explore the efficacy of ECE.(11-17) Their findings are corroborative concerning students' satisfaction and acceptance of ECE. Spencer J et al. found direct contact with patients can be seen to play an important role in developing clinical reasoning, communication skills, professional attitudes and empathy in the students.(18) AK reported the students' attitudes toward medical education were generally favourable, regardless of their clinical exposures.(19) Early experience helped to motivate and satisfy medical student and also helped the students to acclimatize to clinical settings, develop professionally, interact with patients with confidence and less stress, develop self-reflection and appraisal skill, and develop a professional identity (20) Educational research has shown that active learners, learn more

than students who are passive recipients.(21) In early clinical exposure the students actively participate in learning process. Our study results suggest that ECE is a more interesting and interactive form of teaching. It helps build concepts and helps correlate physiology to clinical sciences, and it should be made a part of curriculum.

Conclusion

ECE was introduced in the new CBME curriculum to make the medical students aware of the actual disease burden in society and their future roles and responsibilities as physicians. Taking students perspectives will help in the smooth implementation of ECE in the future. The majority of the students showed a positive response towards the introduction of ECE in their new curriculum. They agreed that ECE is helpful for them and should be made a part of the curriculum in basic sciences in future batches of MBBS students. This study concluded that the students exposed to early clinical exposure sessions benefited more than those exposed only to traditional learning. We expect ECE will definitely create more interest in the medical students as future doctors and motivate them to think beyond the physiology classrooms, reading the disease process.

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Perception of First Phase Medical Students Towards Implementation of Early Clinical Exposure in Undergraduate Medical Curriculum

Dipti Mohapatra (M.D.)¹, Prakash Kumar Sahoo (M.S.)², Arati Mohanty (M.D.)¹, Tapaswini Mishra (M.D.)^{1*}, Arati Meher (M.D.)¹

1- Dept. of Physiology, IMS and SUM Hospital, Siksha O Anusandhan Deemed to be University, Bhubaneswar, Odisha, India.

2- Dept. of Surgery, IMS and SUM Hospital, Siksha O Anusandhan Deemed to be University, Bhubaneswar, Odisha, India.

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Abstract:

Introduction: Early clinical exposure (ECE) is that teaching-learning methodology, in which the medical students are exposed to the patients much before their clinical postings, i.e., as early as the first year of medical college. Early clinical exposure (ECE) was recently introduced into the medical curriculum to bridge the gap between preclinical and clinical departments and help the students correlate the basic science teaching with clinical concepts. **Purpose:** The purpose of the study was to analyse the perception of students towards the introduction of Early clinical exposure in Physiology.

Methods: The study was undertaken in the Department of Physiology. The study was conducted after obtaining institutional ethical clearance and consent from all the participants. A total of 115 first phase undergraduate medical students volunteered to participate in the study. Students' perception about ECE was collected through their feedbacks using a pre-validated questionnaire containing both closed and open type of questions on ECE.

Discussion: Students agreed that ECE is a more interesting method, helped correlate physiology with a clinical case and understand the importance of learning Physiology. Students showed a positive response towards introducing ECE in their new curriculum.

Conclusion: We concluded that the students exposed to early clinical exposure sessions benefited more than those exposed to traditional learning only. We expect ECE will definitely create more interest in the medical students as future doctors and motivate them to think beyond the physiology classrooms, reading the disease process.

Keywords: ECE, Medical, Perception, Undergraduates.

Conflict of Interest: No

*Corresponding author: Tapaswini Mishra, **Email:** tapaswinimishra@soa.ac.in

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