

Introducing pediatrics as early clinical exposure to medical students. Need of the hour.

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Introduction

The competency based medical education (CBME) has been introduced in our country from 2019. In this curriculum, the concept of early clinical exposure (ECE) has been introduced from the first year of medical training. The module proposes that the basic science correlation for 18 hours with 3 hrs per month for 6 month and clinical skills for 12 hours, 3hours a month for 4 month. The basic science correlation could include actual patients, Paper based cases, Graphs, Charts, Videos, Case reports, Field visits. The clinical skills include cases in OPD, wards and demonstration rooms (Medical Council of India, 2019). It is important to introduce ECE for various clinical modalities including paediatrics.

The need for ECE in Pediatrics.

Most medical students, interns and residents are ill-equipped in skills to handle and treat the pediatric population and deal with the unique challenges of age group specific diseases, drug dosage calculations, role of vaccination and proper nutrition in preventive paediatrics and

understanding adolescent psychological issues in social paediatrics. Pediatric patients are a significant and important portion of the total population that doctors need to attend to.

Development of training material

Teaching and Assessment material

The competencies and skills in paediatrics that an undergraduate student must know could be kept in mind while developing the study material (Medical Council of India, 2018). The lesson plan can also include material related to attitude and communication from the Attitude, Ethics and Communication or AETCOM module (AETCOM book NMC, 2020). The key competences to be addressed as in phase I of MBBS curriculum, the possible settings, training and assessment methods, grading students and feedback on reflections are mentioned in a review and should be addressed when formulating the ECE (Modi et al., 2016).

Collaboration with preclinical departments.

This early exposure should aim to sensitize the students but it must be kept in mind that the focus of the students at that point of training is on the preclinical curriculum, so they should not be unnecessarily diverted. It is important and empirical that the clinical exposure would follow whatever is being taught at that particular time in preclinical departments as the students at this stage may not be able to comprehend all clinical knowledge and skills.

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Plan of ECE

What is the requirement of the preclinical and clinical faculty?

This depends on the interest of the teaching faculty, whether or not they want to have ECE in paediatrics, in the topic undertaken. The numbers of clinical faculty, residents, patients required have to be determined. The time table should be thus modified accordingly.

What is the workplace environment? OPD, ward or classroom

This will determine the number of students that can be accommodated and time availability for effective interaction. A classroom or OPD setting can be used for discussions but for eliciting a skill, ward environment is preferred. ICU is preferably avoided because of feasibility issues. All admitted cases may not be suitable for ECE. The crowding of OPD, whether or not all students get to see similar cases can be an issue.

In case based learning, a clinical case may either be discussed with a clinical faculty, a preclinical faculty or even be a paper based case depending on the learning objectives. Hospital and community visits can be planned in addition. This could include visit to infectious disease hospital, thalassemia clinic, child guidance clinic, child development unit, special schools and vaccination centres.

Lesson plan availability

Common cases and those prevalent in the area, in the community are preferred. To fill the gap if any, videos, photographs of patients showing diagnostic signs, reports of biochemical and pathological and radiological investigations like X-ray, CT and MRI scans can be used. Growth charts, nutritional status assessment, immunization charts and records of ECG, spirometry, and even death certificates can be used as teaching material. Modules for communication skills could also be used. A lesson bank of these should be available for use, to ensure uniformity in teaching, more so because these activities may have to be

conducted in small groups. ECE can be also done in an online mode, a necessity and innovation in COVID times. IAP Task Force on Competency-based Curriculum for Pediatrics in undergraduate education has stepped forward to make uniform objectives for undergraduate pediatric teaching which could help in the formulation of the lesson plan for ECE also (Singh and Gupta, 2020).

Execution and management

Management of students, residents, faculty, cases, teaching material, and transport and place availability has to be done. This also includes attendance of students, privacy issues of patients and that the work of others around is not compromised.

Assessment

Multiple choice questions (MCQ), short answers and modified essay type of questions for knowledge based assessments, Objective structured practical examination (OSPE) or Objective structured clinical examination (OSCE) for skills evaluation, spotting for recognition of visible signs and viva voce are some assessment methods. Maintenance of student log books, reflections and case files must be done throughout the undergraduate years.

Feedback from faculty and students

This would be in the form of a structured performance, a questionnaire or a recorded interview stating what the students have learned, what would be required further and how could they put the gained knowledge into use. From the faculty the feedback could include issues related to the work plan, time management, and a record of any facilitating or hindering factor. This helps to develop additional learning and teaching material and improves the logistics of management.

Challenges and Limitations of ECE

ECE requires intense coordination between pre, para and clinical departments. Also during

COVID times, hospital visits can become difficult. There could be difficulties as the students may not have a clear understanding of the disease process or the communication skills in dealing with their young patients.

Conclusion

It is important to increase awareness of medical students about pediatric age group normalcy and disease management, by early clinical exposure. An attempt should be made to initiate it, so that once faced with a real life situation, our medical graduates are confident to treat patients of the pediatric age group effectively.

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