

RESEARCH ARTICLE

A Methodology For Using Epa Technology To Prepare Students In The Treatment Profession For Clinical Procedures (Using The Teaching Of Anaesthesiology And Reanimatology As An Example)

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Abstract

This article examines the scientific and pedagogical foundations of using the Entrustable Professional Activities (EPA) framework to prepare medical students for clinical processes. The study developed an integrative methodology aimed at fostering students' clinical reasoning, rapid diagnostic analysis, practical decision-making and the development of professional responsibility in the teaching of anaesthesiology and resuscitation.

KEY WORDS

EPA technology, clinical processes, clinical competence, anaesthesiology, resuscitation, simulation-based training, clinical reasoning, diagnostic analysis, professional responsibility, medical education methodology.

INTRODUCTION

In the context of today's globalisation and rapid scientific and technological advances in the field of medicine, the preparation of future doctors for real clinical practice is emerging as one of the priority areas of the medical education system. Modern healthcare practice demands of a doctor not only deep theoretical knowledge but also the ability to make rapid decisions in complex clinical situations, to perform practical procedures safely, and to assume professional responsibility. Therefore, there is a need to introduce competency-based, pedagogical approaches that closely approximate clinical practice, rather than traditional knowledge-oriented teaching models.

At the world's leading educational and scientific research institutions, the training process for students in the field of Medicine is directed towards the specific tasks of clinical practice, The key criterion is that each student progresses into the clinical process step by step, works under supervision, and

gains a certain level of confidence. In this process, a student's readiness for clinical practice is determined through direct observation, regular feedback, and assessment in the context of real work. For instance, within the leading US medical education system, the preparation of Medicine students for clinical processes is carried out in accordance with national regulatory documents and national standards. Specifically, Within the competency-based training framework developed by the Accreditation Council for Graduate Medical Education, mechanisms for the progressive escalation of clinical responsibility, direct observation-based assessment, and authorisation for independent practice are clearly defined. In this approach, medical practice is assessed through specific clinical tasks, and the student's readiness for each task is determined based on entrustment criteria.

In the current qualitative phase of development, one of the main tasks facing the medical education system is to

harmonise the content and mechanisms for preparing students in the Medical Practice programme for clinical practice with modern scientific achievements. Rapid advances in medicine and the introduction of new diagnostic and therapeutic technologies into practice demand that doctors possess the competence to analyse complex clinical situations, make evidence-based decisions and work with patient safety as a top priority. Therefore, clinical preparation in medical education must not be limited to imparting knowledge but requires the development of didactic approaches that facilitate adaptation to real clinical practice.

In this quality process, the approach to assessing learning outcomes is also undergoing a fundamental change. As traditional final examinations and tests cannot fully reflect a student's readiness to perform clinical tasks, There is a growing need for assessment based on direct observation in the clinical environment, reflective analysis and monitoring mechanisms that take into account the outcomes of practical activities. This allows assessment to be regarded as an integral part of the teaching process in clinical education, enabling continuous monitoring and refinement of the student's developmental trajectory.

EPA technology – is a practical mechanism of competency-based medical education that serves to assess and manage the professional preparation of a future doctor not through an abstract set of knowledge and skills, but through specific professional tasks that represent real clinical activity. In this approach, clinical activities are interpreted as distinct “units of professional responsibility”, and the student's ability to perform these tasks safely, to a standard, and responsibly becomes the primary assessment criterion. The EPA technology allows for the determination of a student's readiness for clinical processes through a confidence trajectory that develops incrementally, moving away from a binary “knows” or “does not know” perspective.

An important aspect of EPA technology is that it manages the process of authorising clinical practice on a scientific basis. For each EPA, the conditions for performance, safety restrictions, clinical context and levels of supervision (direct, indirect, remote) are clearly defined. A student's readiness to perform a specific task is determined by direct observation, workplace assessment tools and clinical evidence, after which they are granted appropriate confidence. This process serves to consciously foster the student's professional responsibility, alongside ensuring patient safety in clinical education.

Within the scope of the research conducted, EPA technology is regarded not only as an assessment tool but also as a didactic technology for designing clinical education. This model integrates learning objectives, teaching content, simulation and clinical exercises, assessment mechanisms and reflective analysis into a single system. As a result, the EPA technology bridges the gap between theory and practice in preparing students on the Medicine programme for clinical processes, It emerges as an innovative medical-pedagogical approach aimed at providing step-by-step and safe professional training, bridging the gap between theory and practice in the preparation of students on the Therapeutic Work programme for clinical practice.

RESULTS AND DISCUSSIONS

Within the scope of the research conducted, EPA technology is regarded not only as an assessment tool but also as a didactic technology for designing clinical education. This model integrates learning objectives, teaching content, simulation and clinical exercises, assessment mechanisms and reflective analysis into a single system. As a result, the EPA technology bridges the gap between theory and practice in preparing students on the Medicine programme for clinical processes, It emerges as an innovative medical-pedagogical approach aimed at providing step-by-step and safe professional training, bridging the gap between theory and practice in the preparation of students on the Therapeutic Work programme for clinical practice.

In particular, in the field of anaesthesiology and intensive care medicine, guiding clinical processes is a complex, multi-component task that encompasses clinical reasoning, algorithmic decision-making, analysis of monitoring data and prompt action in emergency situations. In this process, the EPA (Entrustable Professional Activities) technology enables the design of clinical practice through specific professional tasks and serves to determine the student's level of readiness based on the concepts of entrustment and supervision. This approach is aimed at ensuring patient safety by applying the principle of safe clinical delegation to the educational process.

At the same time, directing students of the Treatment Practice programme to clinical processes serves to consciously shape the student's professional responsibility. The process of engaging in clinical practice is underpinned by the concept of responsible clinical independence, whereby the student's readiness to perform clinical tasks is evidenced by real clinical

data, workplace assessments and reflective analysis. Consequently, in the modern medical education system, orientation towards clinical processes emerges as a key, scientifically-founded pedagogical factor that determines the teaching content and methodology.

World experience shows that for the effective development of preparation for clinical processes, the experience of universities in countries that have aligned medical education with real clinical practice is of particular importance. In such approaches, a student's readiness is determined not only by theoretical knowledge but also by their ability to work with patients, assess clinical situations, and perform safe practical procedures. Consequently, the educational process is organised with a focus on practical outcomes.

CONCLUSION

In the experience of Canadian universities, clinical training is organised in stages, with specific clinical tasks that students must complete at each stage. In the field of anaesthesiology, these tasks are linked to real clinical work such as patient assessment, monitoring and providing initial care in emergency situations. This enables the student to engage in clinical processes in an organised and safe manner.

In UK universities and clinical centres, the issue of supervision is given particular attention in clinical training. A student's involvement in clinical practice begins under strict supervision, and as their experience and readiness increase, the scope of tasks they can perform independently is gradually expanded. In this way, the student is guided towards professional independence without compromising patient safety.

In the experience of US medical schools, an important aspect of preparation for clinical processes is to reduce the discontinuity between stages of study. It is a clear requirement that students must be prepared to perform clinical tasks by the time they reach the final stage. These requirements are taken into account from the very beginning of the educational process, and the student's progress is regularly monitored.

In the experience of Dutch universities, a task-oriented approach is considered a priority in clinical training. The student's readiness to perform a specific clinical task is determined on the basis of direct observation and the results of practical activities. This approach serves to accurately assess clinical readiness and to organise the educational process effectively.

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