Task Oriented Assessment of Clinical Skills (TOACS): A Modified Form of OSCE

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ABSTRACT

College of Physicians and Surgeons, Pakistan (CPSP) is a premier postgraduate medical institution of the country. It introduced Objective Structured Clinical Examination (OSCE) in the 1990s, and later came up with its modified form known as Task Oriented Assessment of Clinical Skills (TOACS). This modified assessment has been incorporated in clinical examinations of its majority fellowship programmes. Despite the use of TOACS for so many years at CPSP, it is surprising to note that this form of assessment does not appear in the literature. The objective of this viewpoint is to describe the rationale for the development of TOACS and to compare its structure and functions with OSCE.

Key Words: *Medical education, Assessment, Objective Structured Clinical Examination, Interactive, Task Oriented Assessment of Clinical Skills.*

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Since ancient times, clinical education and training have relied mainly upon the ability of students to develop a comprehensive knowledge base of health and disease with simultaneous acquisition of clinical skills through bedside practice, unlike many other professions and disciplines, which rely mainly on didactic teaching. Medical education, therefore, revolves around bedside learning.[1] The peculiar context of the medical profession requires of its members, from the very first day of their entry as a medical student, to keep in focus the safety and well-being of patients and strive to find ways to improve health outcomes, instead of investing energies on inert theoretical details.

Advancement of civilisation on social and technological fronts, during the last few decades, has put safety and comfort of patients on top of other considerations. Consequently, many bedside and patient-based skills are now preferred to be first acquired and practised in skill labs before they can be applied to real patients. This trend has led to the emergence of mannequins, virtual methods, and simulated patients in teaching and assessment of clinical competencies causing significant decline in bedside teaching.[2]

Similarly, the assessment in medical education has evolved remarkably over the years. The tools designed initially to test the knowledge base are no longer considered enough unless they can test the application of knowledge, critical thinking, and decision-making.

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The period up to the 1960s laid great emphasis on the assessment of knowledge, but soon the focus shifted to the assessment of clinical skills and performance. For decades, both at undergraduate and postgraduate levels, the tools used for assessing clinical skills included long-case, short-case, and oral examinations. These methods, because of associated subjectivity and validity issues went into disrepute and led to the introduction of Objective Structured Clinical Examination (OSCE) in 1975 by Harden.[3]

The College of Physicians and Surgeons, Pakistan (CPSP) was established in 1962, as a postgraduate medical institution of the country. CPSP has a history of closely following innovations in medical education. It introduced OSCE in the examination of its newly launched diploma in Family Medicine in 1990,[4] followed by its inclusion in some other fellowship examinations. In 1984, a guideline on OSCE was developed and published by the then Director, Department of Medical Education (DME), which was republished subsequently in 1991.[5] But, soon the enthusiasm for the new format dwindled among the examiners as they perceived that OSCE, in its original format might deprive them of their right to ask follow-up questions about the tasks performed. This perception subsequently paved the way for modifying OSCE to Task Oriented Assessment of Clinical Skills (TOACS) at CPSP. The objective of this article is to describe the rationale for the development of TOACS and compare its structure and functions with OSCE.

The development of OSCE was contingent upon the need for assessing performances that ensured that the graduating doctors have the competencies necessary for providing patient care. These competencies are broadly divisible into knowledge and performance-based capabilities. The latter includes clinical, procedural, and soft competencies, such as communica-

tion, counselling, professionalism, etc. For complete acquisition of each of the broad competencies, it is necessary to acquire multiple constituent sub-competencies or enabling outcomes, as well as several hierarchical and progressive levels of attainment on Miller's triangle.[6]

Cognitive and performance-based competencies closely twine together. The ability (competence) to collect data from a patient (history-taking), perform a physical examination and recognise findings, develop a differential diagnosis, request and interpret appropriate investigations, arrive at a definitive diagnosis, and develop a management plan are clinical competencies that require both cognition and manual skills. Mere knowing a list of diseases, their causes or treatment is meaningless unless accompanied by clinical skills as summarised above. In addition, delivery of optimum patient care also requires leadership, teamwork, and professionalism. These are the basic overarching competencies required of every doctor in general and a specialist in particular. Consequently, international postgraduate organisations such as The Accreditation Council for Graduate Medical Education (ACGME)[7] and Canadian Medical Education Directives for Specialists (CanMEDS)[8] have come up with their brands of competency frameworks, which make it imperative for all disciplines to ensure that the specific competencies of each speciality are duly aligned to the institutional competency-framework and the residents upon completion of their training must possess those competencies.

CPSP also developed its own competency model, which places 'Patient Care' centrally, while all other competencies are the means to attain optimum patient care (Figure 1). The competencies in the model are arranged in two circles surrounding 'Patient Care.' The inner circle includes competencies directly related to the delivery of patient care, while the outer circle encompasses competencies related to professional quality and strategies for its delivery.[9]

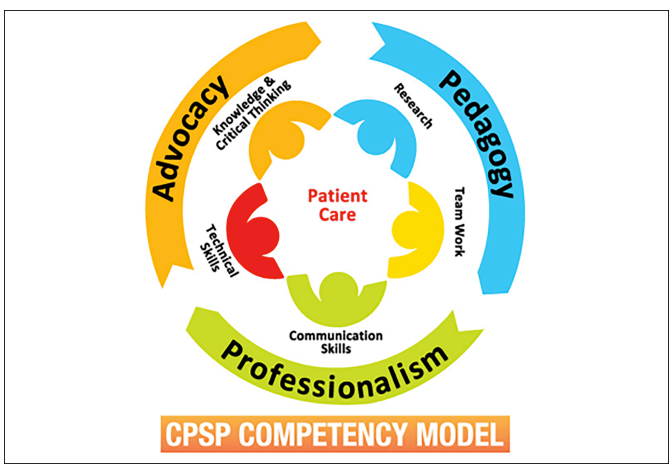

Figure 1: The competency model developed by the College of Physicians and Surgeons, Pakistan (CPSP).

A literature search was conducted to find out about TOACS, but no results were found. The CPSP documents, however, provide some background information that led to the development of TOACS as a separate assessment tool. CPSP, in 1996, upon successful completion of the second decade of fellowship examinations, began an extensive review of the assessment methods it had been using. The review was conducted under an international expert in medical education Dr. Neil S. Paget, Director of Education, the Royal Australasian College of Physicians, Sydney, Australia. The review included a series of workshops comprising CPSP examiners, who made following observations regarding the new method of OSCE: 'The examiners at OSCE stations are required to fill either checklist or rating scale silently without an opportunity to examine the depth of knowledge by asking follow-up questions, which seriously compromises its flexibility, face validity and utility'.

This observation seriously jeopardised the acceptability of OSCE and motivated CPSP to develop a more acceptable format.

One of the authors who attended the 15th Ottawa Conference in Malaysia in 2012, raised the above observation during a symposium on assessment. The panel was not aware of TOACS, but replied that interaction between examiner and examinee can and is being included in OSCE.[10] This claim is not true, as even today the examiners at majority of OSCE stations usually do not pose any questions. A current video of OSCE used in PLAB examination supports this observation.[11]

OSCE initially had two categories of stations: Process (P) and Question (Q) stations. The P-station asked the candidates to perform a task, while the Q-station provided written questions and expected written answers. The P and Q stations merged subsequently into one station. Some stations of OSCE are now observed, where an examiner is present to silently evaluate the performance of a task on a checklist or a rating scale, while other category of stations requires unobserved completion of task performance and response to written questions.[5]

The structure of TOACS is similar to that of OSCE and is based on various clinical tasks. Unlike OSCE, however, its two categories of stations are interactive and static.[12] Interactive stations are those that have an examiner, while the other category is just like unobserved stations of OSCE. An interactive station requires the candidates to perform a task, while an examiner first observes the performance, then asks questions related to the task upon its completion (e.g., why a specific step was done or not done?) and fills the checklist or rating scale. The advantage of this format is that the examinee who justifies the specific approach adopted for the performance gets more marks as compared to the one who does not. Since performance is not a stereotype activity dependent solely upon a knowledge base or a set pattern, it varies with the situation, the context, and the performer. Hence, performance can be best assessed by observation as well as by ascertaining the reasons for taking certain steps through interaction. The increasing use of computers in conducting cognitive examinations has substantially reduced the utility of static stations. The use of static stations was mainly for the interpretation of images, which is no longer required as CPSP now employs computer-based examinations, which present images and pictures with great precision and fidelity. CPSP, therefore, has decided to have only interactive stations in TOACS.

The step of CPSP to modify OSCE into TOACS in 1996 has raised its acceptability among its examiners and improved examinations by making them standardised, structured, more objective and time-bound. As a result, the College has implemented TOACS gradually in place of viva voce in the examinations for the majority of its disciplines.

The benefits of adopting TOACS as a variant of OSCE, in place of viva voce, are quite evident in the literature. The transformation from observed, non-interactive OSCE stations to both observable and interactive stations in TOACS offers some clear advantages. Nevertheless, it is essential to validate these benefits through research studies that compare interactive TOACS stations with observed stations lacking interaction between the examiner and the examinee.

COMPETING INTEREST:
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SHS: Central idea and manuscript writing.
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