



University of Maryland, School of Dentistry Objective Structures Clinical Exam (OSCE)

Key Investigator

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Field

Education, Training

Technology

Software, Algorithm

Technology Status

Currently in use at UMB

Status

Available for licensing

Patent Status

Copyright

UMB Docket

Reference

JP-2012-099

Summary

Objective Structures Clinical Exams (OSCEs) are used in the assessment of health sciences professionals (e.g. orthoptics, optometry, medicine, nursing, pharmacy) to test clinical performance and competence in skills such as communication, clinical examination, medical procedures, prescription writing, radiographic positioning and image evaluation, as well as interpretation of results. Due to time constraints and large class sizes, physical examination stations are not feasible. UMB inventors have created an exam based on American Dental Education Association (ADEA) guidelines that utilizes virtual stations to assess general dental knowledge. This exam enables large dental programs to assess the general competency of dental students in the clinic without the substantial amount of time and resources required of a physical clinical exam.

OSCE exposes students to images, radiographs, or video scenarios that mimic real life interaction with virtual patients. OSCE contains scenarios that address communication, medical emergencies, endodontics, operative dentistry, periodontics, removable and fixed prosthodontics, cultural competence, ethics, drug abuse, and child abuse. OSCE contains 87 multiple choice questions of varying scenarios to gauge user knowledge and a full health history interview from which the dental student must write a thorough medical consultation. The dental student is required to write a prescription(s) for prophylactic antibiotics due to an artificial joint, an oral cancer screening, and demonstrate proper suture placement. Answer sheets and rubrics have been developed, as well as additional remediation exercises. Students perform an oral cancer screen and suture test on patients and suture blocks, respectively.

Advantages

- The virtual exam mimics the clinical experience without requiring the time and resources of the clinic.
- Questions and scenarios are standardized so answers can be assessed in a uniform manner.
- The virtual exam allows students to encounter scenarios that they might see in the real world, but would be difficult to produce in a physical clinical exam.