




MEMORANDUM

DATE	May 28, 2020
TO	Anthony Lum, Executive Officer Dental Hygiene Board of California
FROM	 Heidi Lincer, Ph.D., Chief Office of Professional Examination Services
SUBJECT	Considerations for the 2020 Dental Hygiene Interim Objective Structured Clinical Examination

In response to Business and Professions Code section 139, the Dental Hygiene Board of California (Board) consulted with the Office of Professional Examination Services (OPES) about the proposed 2020 Dental Hygiene Objective Structured Clinical Examination (OSCE). According to the Western Regional Examining Board (WREB), the OSCE is a multiple-choice written examination offered as an interim alternative to the performance-based Dental Hygiene Examination to mitigate testing limitations associated with COVID-19. WREB is preparing documentation regarding the development of the OSCE, therefore, OPES has not evaluated the evidence of validity. The purpose of this memo is to offer comments about the OSCE and present criteria that should be considered before adoption of the OSCE.

Examination requirements

Business and Professions Code section 1917 provides examination requirements for licensure as a dental hygienist in California. The Board currently requires that candidates take and pass the following examinations:

- (1) The National Board Dental Hygiene Examination (NBDHE). This examination is a comprehensive examination designed to measure the knowledge required for safe, entry-level practice. This examination is comprised of 350 multiple-choice items that assesses a candidate's knowledge using case-dependent and case-independent formats.
- (2) A performance-based clinical examination developed and administered by either WREB or the Central Regional Dental Testing Service, Inc. (CRDTS). Both of these clinical examinations require candidates to demonstrate critical skills required for practice using live patients. Further, both of these clinical examinations measure similar content, including a candidate's ability to remove calculus and manage tissue without harming a patient.
- (3) A California-specific law and ethics examination.

Content areas

A review of the published content areas and weights of the OSCE and the performance-based clinical examination appears to indicate that the content areas are not comparable measures of similar subject matter. A summary of the content areas is provided below:

CLINICAL CONTENT AREAS	WEIGHT	OSCE CONTENT AREAS	WEIGHT
Calculus Detection and Removal (12 surfaces)	75%	Medical History	13%
Tissue Management		Risk Assessment	12%
Periodontal Pocket Measurement and Recording (18 surfaces assessed for probing depth)	25%	Extraoral and Intraoral Examination	6%
Gingival Recession Assessment and Recording (6 surfaces)		Periodontal Assessment	30%
		Dental Hygiene Treatment and Care Plan	20%
		Instrumentation	19%

It has been established by an occupational analysis study that the skills measured by the performance-based clinical examination are essential for practice. For example, knowing how to perform calculus removal is significantly different than actually performing calculus removal in a competent manner.

Considerations for evaluation

Validity is an essential component of an examination program and involves evidence regarding examination development and administration, scoring, reliability, and fairness to candidates. The Board's current examination structure is designed to measure the knowledge required for practice and the skills required to implement that knowledge in a safe manner.

In further evaluating the OSCE and providing the Board with recommendations on adoption, OPES requests the following information:

- (1) Evidence that the OSCE is an equivalent measure of the skills measured on the performance-based clinical examination. As the WREB and CRDTS clinical examinations measure a candidate's ability to perform critical skills using a live patient, the equivalency of the OSCE must be established if scores across these examinations are to be interpreted in the same manner.
- (2) Documentation of scoring criteria and how these criteria measure the performance of clinical dental hygiene skills. The WREB and CRDTS clinical examinations both currently use a 100-point scoring system in which points are deducted for errors of inadequate or improper performance.
- (3) Evidence that the OSCE does not duplicate the content measured by the NBDHE written examination, creating an artificial barrier to practice.

A clear psychometric rationale should be provided for any changes to examination content or format. This rationale should involve a systematic study linking the competencies required for practice with the proposed changes.