Virtual clinical skills training and evaluation in healthcare education

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Rutgers University, School of Health Professions

35 degrees and certificates at the graduate and undergraduate level

Largest, most comprehensive health professions school in the nation

College Factual 2018 ranked Rutgers SHP #1 in Best Colleges to study Health Professions!
Let's take a poll

• What level is your current academic responsibility?

• Do you utilize online learning programs for clinical skills training (i.e. physical exam, interviewing, counseling)?

• Have you adapted any hands on activities to online/virtual leaning?
Session Objectives

Identify strategies for clinical skills training for nutrition practitioners while using online learning platforms.

Identify strategies for clinical skills evaluation for nutrition practitioners while using online learning platforms.

Identify learning tools in online learning that will foster clinical skills training.
Clinical Skills Defined

- NUTRITION FOCUSED PHYSICAL EXAMINATION (NFPE)
- CLINICAL SCREENING & ASSESSMENT
- INTERVIEWING/HISTORY TAKING
- EDUCATION & COUNSELING
- INTERPERSONAL SKILLS AND COMMUNICATION
Clinical Skills Training: Strategies

<table>
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<th>Simulation</th>
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<tr>
<td>• Role Playing: peer-to-peer, student to family member using breakout rooms</td>
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<td>• Electronic Health Records: EHRGo for assignments, practice and speed drills</td>
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<td>• NFPE Practice using Zoom</td>
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<td>• TOSCE/OSCE - (Teaching) objective structured clinical examination</td>
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<th>Flipped Classroom</th>
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<td>• Weekly live f2f session after review of didactic content</td>
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<td>• Utilize case application, role playing, simulation</td>
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<th>Clinical Mentoring</th>
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<td>• 1:1 weekly meetings for debrief and real case discussion</td>
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<td>• Faculty can identify areas of remediation</td>
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<th>Workshop</th>
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<td>• In person or virtual workshop 3x/year in NJ</td>
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NFPE Breakout Room Example

https://youtu.be/9vXPZxjwuQg
EHRGo Sample

https://youtu.be/eCyTjCH4y5M
Flipped Classroom using Canvas

Module 3: Disease of the Immune System

- Pre-Live Class Activities -- Due Wednesday by 11:59 pm ET
- Module 3: Readings and Multimedia
- Module 3: Pre Live Class Activity

- Live Class Session -- Thursday 10 am to 12 noon ET
- Module 3: Live Zoom Session
- Module 3 Live Session Agenda

- Post-Live Class Activities -- Due Sunday by 11:59 pm ET
- Module 3: Clinical Case Study Presentation Draft PICO/PIO and Articles
  Jan 30 | 15 pts
- Module 3: Post-Assessment Quiz
  Jan 30 | 7 pts

Department of Clinical and Preventive Nutrition Sciences
Clinical Mentoring

Virtual weekly student to faculty mentoring
Clinical Skills Training: Evaluation

OSCE/TOSCE: Use of standardized patients; peer and faculty debrief & evaluation

Recordings

Self Evaluation

Role Playing: breakout room with faculty evaluation

Live Presentations: case studies, journal clubs, clerkship projects

Formative & Summative Assessment: CBE, weekly evals from preceptor, 3x/yr summatives

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The use of the OSCE

- Physical Exam
- Patient History Taking
- Counseling
- Education
- Interpersonal Communication Skills
Clinical Skills Training & Evaluation

• TOSCE
  – A formative experience
  – Faculty and trained standardized patients provide students with feedback

• OSCE
  – A summative examination
  – Ideal for students to demonstrate the *shows how* of Miller’s Assessment Pyramid of Clinical Competence
Integration Into Nutrition and Dietetics Curricula

Schedules - Allow adequate time

- TOSCE - Example
  - Students review the case in the beginning of encounter (5 min)
  - Encounter (25 min)
  - Debriefing during TOSCE (10 min)

- OSCE
  - Individual encounters need a waiting room
  - No debriefing during the OSCE

- Time
  - Example: A 30 minute OSCE with 24 students allow 4 hours
    - (8 faculty 2 per web room; 1 SP and 1 evaluator)
  - Variable
    - Depends on how long your encounter is
    - Number of students
Clinical Skills Examination Benefits

Provide a format for educators to evaluate clinical decision making and problem-solving skills.

Provide an assessment of readiness for clinical practice in patient communication, interviewing, counseling, and nutrition-focused physical exam (NFPE).
December 202 Virtual OSCE

Nutrition-Focused Physical Examination using Zoom
June 2020 Virtual OSCE

Virtual telehealth encounter using Clinical Skills Lab and standardized patient actor
Voice Thread use for NFPE, interview, counseling skill practice and evaluation
Virtual Tools to foster Clinical Skills Training

- Zoom
- EHRGo
- Breakout Rooms
- Voice Thread
- Simulation
- Learning Management System
Integration Into Nutrition and Dietetics Curricula

Curriculum
Which courses can a TOSCE/OSCE be added to?
When does a TOSCE/OSCE best fit into your curriculum?
Do you want to have more than one clinical skills exam, to observe skills progression over time?

Training
Does your college/university have a clinical skills lab you can use virtually with SPs?
Will you be able to create the case study for each encounter?

Technology
Will you be using your school’s web platform with faculty as the SP?
Will the student have the technology needed (tripod, computer, phone)?

Faculty Support
Do you have enough faculty to assist?
Future of virtual skills training

- Virtual Reality
- Health Professions training
  - PPE
  - Surgical Skills
  - Communication
  - Knowledge (anatomy)
  - Feeding tube placement

Any Questions?

Feel free to reach out with questions...

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References


