

Improving Student Preparation for Competency Exams through Interprofessional Simulations

McKenzie Behrendt, OTD, OTR/L



COLLEGE OF ALLIED
HEALTH PROFESSIONS



Learning Objectives

- ✓ Describe the design of an ungraded objective structured clinical examination (OSCE) for interprofessional experience in preparation for competency exams.
- ✓ Discuss the benefits of involving other health profession students as standardized patients for ungraded simulation experience.



Co-Authors



**McKenzie Behrendt, OTD,
OTR/L**

**Instructor of
Occupational Therapy**



**Stacy Smallfield, DrOT,
OTR/L, BCG, FAOTA**

**Associate Program
Director, Associate
Professor of Occupational
Therapy, Doctoral
Capstone Coordinator**



**Jessica Semin, DNP,
MPH, RN**

**Assistant Professor of
Nursing, Director,
College of Nursing Office
of Global Health**



Kevin Kupzyk, PhD

**Assistant Professor of
Nursing**

The Current Landscape



Krusen & Martino, 2020; AOTA, 2015; Edwards Collins et al., 2020; Favolise, 2019; Morrell et al., 2019; Nichols et al., 2019



OSCEs are known to increase student stress and anxiety

Kolanczyk et al., 2019
Krusen & Martino, 2020
Burbach et al. (2016)

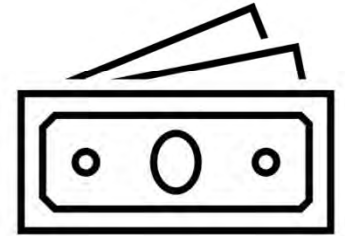
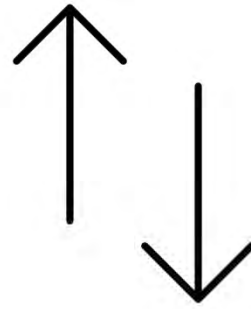
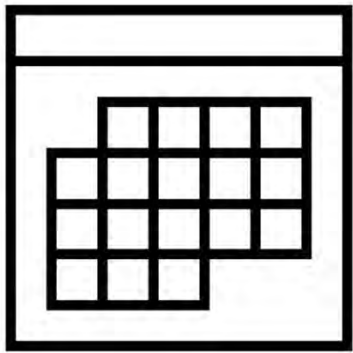
Educators, Take Action!

Skill-based practice experiences:

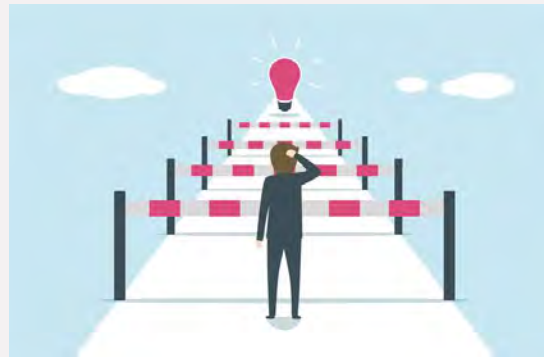
- Familiarize with the structure, environment, and expectations
- Receive educator & peer feedback
- Reduce stress and anxiety



Laposhka & Smallfield, 2022
Krusen & Martino, 2020
Grab et al., 2021
Kolanczyk et al., 2019



Barriers to OSCEs



Interprofessional Collaboration

Positives of involving other health profession students as standardized patients

- realistic experience
- mimics the level of stress and anxiety

Nieuwoudt et al., 2021

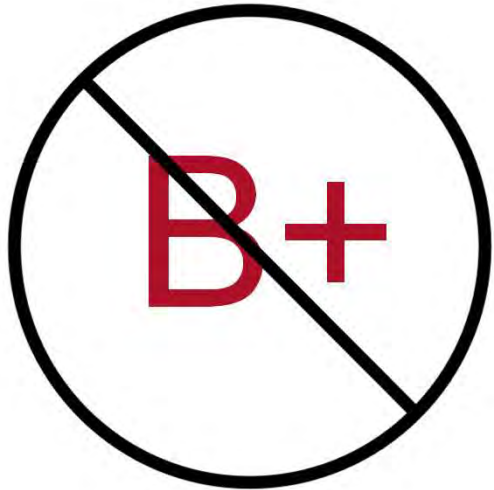
Alrasheed et al., 2021

McKinlay et al., 2021

Cortés-Rodríguez et al. 2021



Our Solution





Description of the Solution



OT students = therapists
Nursing students = clients

Ungraded OSCE Learning Objectives

By the end of the ungraded objective standardized clinical examination (OSCE) experience...

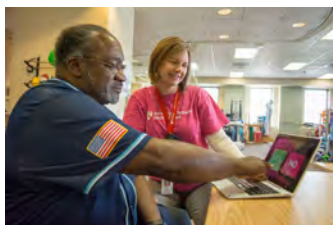
OT learners will:

1. Communicate the distinct value of occupational therapy to the interprofessional team.
2. Apply theoretical knowledge and evidenced-based intervention strategies to select cases.
3. Discuss interprofessional team dynamics.

RN learners will:

1. Understand occupational therapy's role as a member of the health care team through case study learning.
 2. Identify and communicate when a referral to occupational therapy may be warranted.
 3. Discuss interprofessional team dynamics.
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Student Participants



Students (N = 42)	Doctoral level OT	Bachelor level RN (BSN)
Participant number	20	22
Course credit	Middle and older adult assessment and intervention course	Patient centered care clinical course
Progression in program	Second semester of the program	First of a three-semester accelerated program or second of a four-semester traditional program

Event Overview

- One week prior to the OSCE

Pre-brief

Three practice OSCEs

Large group debrief



Pre-brief

Introduction to OT

Learning goals

Logistics and format of simulations

Pre-experience
ICCAS survey





Case Development



Three Practice OSCEs

- Each student performed one & observed two simulations
- Each simulation:
 - 10 min prep
 - 25 min encounter
 - 10 min debrief

Reflection

OT
observer
form was
the OSCE
rubric

Complete this question before the simulation: What is the role of occupational therapy for an individual with this condition in this setting?

0 Unsatisfactory Performance of skill did not come up to a passing standard. Appeared disorganized. Unsafe and/or unsuitable to progress.	1 Emerging Patchy performance of skill. Examiner undecided whether to pass or fail. Demonstrated some aspects of skill however omissions and inaccuracies occurred in performance of the skill. Formulaic in approach. Confidence does not match skill.	2 Proficient Acceptable performance of skill. Despite omissions/errors demonstrated in performance of skill - safe to progress. At times, can be formulaic in approach.	Exemplary Performance of skill above standard. Majority of technical aspects of skill demonstrated. Few minor and non-essential omissions/errors. Confident and fluent. Examiner more than satisfied candidate has passed.
		Acknowledge, Introduce, Duration, Explanation	
		Articulate rationale for intervention (FWPE 16; B.3.3.)	
		Articulate client-centered plan/goals with recognition of disease effects in collaboration with the client Integrate client factors (values, beliefs, & spirituality, body functions, and body structures). (FWPE 17; B.3.5.)	
		Select client-centered, OB intervention plan that motivates & challenges the client (FWPE 19; B.4.3.)	
		Implement client-centered, OB intervention plan, integrating occupation throughout, address performance patterns & skills (FWPE 20; B.4.2.; B.4.3.; B.4.10.)	

Reflection

- Pre & post sim question about OT's role
- Primary BSN diagnosis & priority items
- Small group debrief
 - Therapist self-reflection
 - Client reflections
 - OT & RN feedback
 - Instructor feedback

Question	What went well?
Complete this question prior to the simulation:	
What is the role of occupational therapy for an individual with this condition in this setting?	What would you like the student occupational therapist to have done differently?
Complete the following questions during the simulation:	
Did you observe therapeutic use of self/ building rapport? Explain. <ul style="list-style-type: none"> • Using AIDET, advocating, encouraging, collaborating, empathizing, instructing, problem-solving 	What did you learn from observing this scenario?
Was the intervention session client-centered and recognized the effects of the disease? Explain. <ul style="list-style-type: none"> • Integrates client factors well [values, beliefs, & spirituality, body functions (physiological, cognitive, neurobehavioral, and psychological and emotional), and body structures]. • Collaborates with client throughout intervention. • Strongly correlates with the client's goals. 	What questions do you have for the occupational therapist student, lab instructor, or your group?
Was the intervention session contextually and culturally relevant? Explain. <ul style="list-style-type: none"> • Considers contextual factors (setting, built environment, social supports, attitudes, and services, systems, and policies). 	What nursing problems would be identified for this patient?
Was the client engaged in occupation-based interventions? Explain.	What priority nursing assessments would be needed for this patient?
	Complete this question after the simulation:
	What is the role of occupational therapy for an individual with this condition in this setting?



Large Group Debrief

- Lessons learned & IP team dynamics
- Referrals & consults to IP team members
- Explained OT & how OT & BSN can work together
- Post-experience ICCAS survey

OT Student Documentation





Assessment Tools & Measures

Interprofessional Collaborative Competency Attainment Scale (ICCAS)



- All students completed during pre-brief & debrief
- 20-item self-report tool measuring:
 - Communication
 - Collaboration
 - Roles & responsibilities
 - Collaborative patient-family centered approach
 - Conflict management/resolution
 - Team functioning

Link to [ICCAS](#)



Post-Event Student Survey

Being a patient in the OT/RN interprofessional activity contributed to increasing my knowledge and attitudes related to....

- Need for effective communication in developing a care plan
- Including the patient in the decision-making process
- Understanding the abilities and contributions of an occupational therapist on the healthcare team.
- Recognizing how other healthcare professional's skills and knowledge complement my own.
- Developing a holistic plan for patients.
- Understanding the abilities and contributions of a nurse on the healthcare team.

(Delaney et al., 2021)

Student Debrief

- Recorder captured students' comments during the simulation event debrief



Post-Event Facilitator Survey

- What went well?
- What improvements are needed?
- Ideas for future collaborative events between the two academic programs?





Post-OSCE Survey

- OT students completed an 8-question survey one month after the actual OSCE (approx. 5 weeks post-event)

Questions:

- The simulation event prepared me for the actual simulation.
- There is benefit to having patients in the simulation event portrayed by other health care professional students rather than an OT classmate (e.g., mimicking the stress & anxiety of the actual simulation)
- Working with other healthcare professional students as patients in the simulation event improved my preparation for the actual simulation.
- The simulation event format consisting of three simulations (10-min prep, 20-25 min SIM, 10-min debrief) along with a large group debrief was beneficial for learning.
- The simulation event decreased my anxiety for the actual simulation.
- The simulation event decreased my stress for the actual simulation.
- I value the use of role-play in helping me prepare for fieldwork and practice.



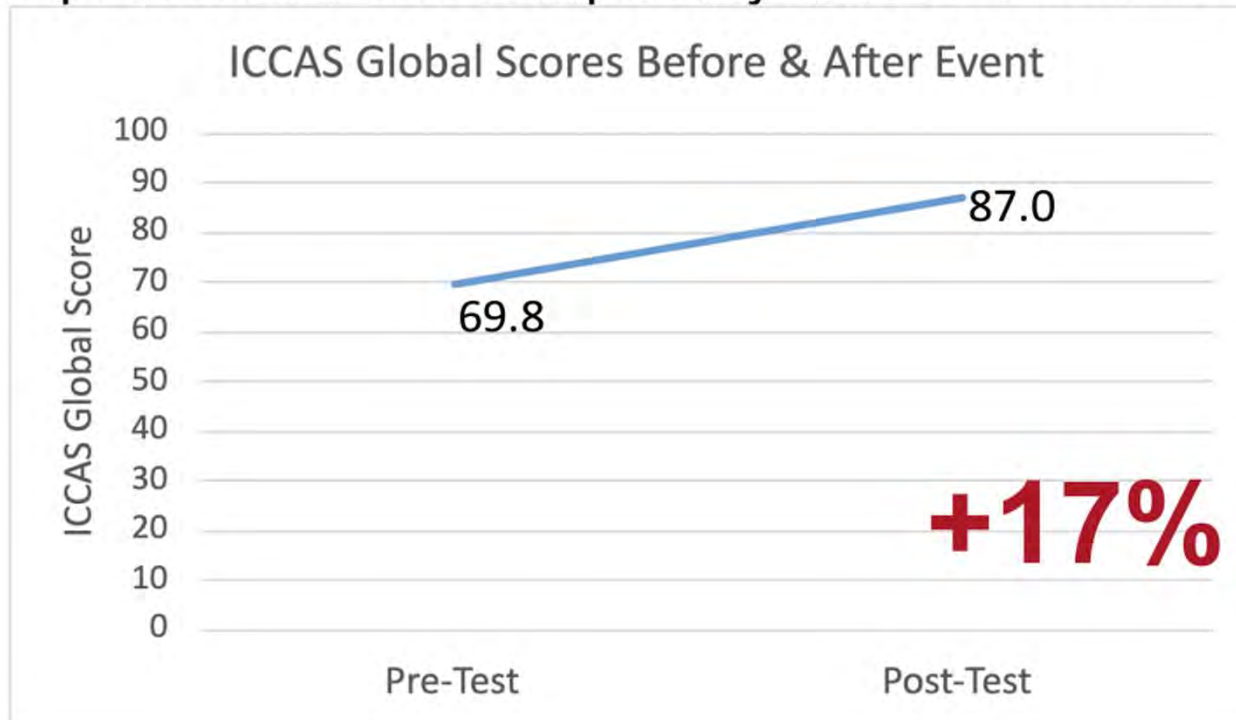


Results

ICCAS Results



OTD & BSN students had a significant improvement in interprofessional core competency skills $t(37)=9.91, p<.001$



- 35/38 (92% of the sample) increased on ICCAS Global Scores
- 92% Strongly agreed to the need for effective communication in developing a care plan
- The ICCAS item with greatest improvement was providing constructive feedback to IPE team members

Post-Event Student Survey Results



Being a patient in the OT/RN interprofessional activity contributed to increasing my knowledge and attitudes related to....	Strongly Agree n(%)	Somewhat Agree n(%)	Somewhat Disagree n(%)	Strongly Disagree n(%)
1. Need for effective communication in developing a care plan.	35 (92.1)	3 (7.9)	0 (0.0)	0 (0.0)
2. Including the patient in the decision-making process.	34 (89.5)	4 (10.5)	0 (0.0)	0 (0.0)
3. Understanding the abilities and contributions of an occupational therapist on the healthcare team.	32 (84.2)	5 (13.2)	0 (0.0)	1 (2.6)
4. Recognizing how other healthcare professional's skills and knowledge complement my own.	30 (78.9)	8 (21.1)	0 (0.0)	0 (0.0)
5. Developing a holistic plan for patients.	29 (76.3)	9 (23.7)	0 (0.0)	0 (0.0)
6. Understanding the abilities and contributions of a nurse on the healthcare team.	26 (68.4)	10 (26.3)	1 (2.6)	1 (2.6)

Student Debrief & Facilitator Survey Results



Four themes

were

identified:

decreasing stress and anxiety,

understanding the breadth of OT,

recognizing own competencies, and

benefiting from collaboration.



Understanding the Breadth of OT

- "I had no idea OTs did so much with so many different people."
- Another student was surprised at the "many environmental changes for people with different conditions."
- A nursing instructor commented that asking students to explain the role of OT to a near-peer at the end of the simulation event was a great way to show their understanding of this interprofessional team member.



Recognizing Own Competencies

- **"It was great to see how we can work together to accomplish the same patient goals but how we take a different perspective and approach for the same problem."** – RN student
- "This experience has helped me realize how as OTs we really do have expertise in activity analysis and grading the activity to meet people's needs." – OT student
- "Learning about nursing [...] and how it aligned with OT helped us during the simulation, but also in the future for interprofessional teams!" - OT student



Benefiting from Collaborating

- "Students were very engaged, nursing students role played very very well; students participated in feedback, and it was valuable." – OT instructor
- **The nurses did a wonderful job portraying the patients which made it a truly valuable and useful experience. That helped me see that really getting into character is what is going to help my classmates and I learn the most from each interaction.** – OT student
- "The in the moment learning and reflections of the students were great for building rapport and understanding of the interdisciplinary team." - OT instructor

Post-OSCE Survey Results



91% of OTD students agreed or strongly agreed the mock simulation:



Preparation



Anxiety
Stress

Decreasing Stress and Anxiety



"The ungraded OSCE was incredibly helpful for me, not only did it help prepare me for the exam, but it gave me twice the practice."



"The ungraded OSCE was a great exercise to increase my confidence for the actual OSCE and an additional opportunity to work on all of the skills required to be an OT."



Discussion



Findings Suggest Ungraded OSCEs

- Improves teamwork
- Improves understanding the roles of interprofessional team members
- Make meaningful and positive differences in preparing students for professional practice
- Improve student wellness
- Decrease academic pressure



Boulet (2008)
Holmboe et. al., (2011)

Benefit of Involving Interprofessional Students

- More authentic experience with incorporating the nursing students
 - Intentionally or unintentionally lead the student therapist in the right directions
 - Interprofessional students bring their knowledge and experience of the condition to the role-play



Learning Strategies

- Active learning method
 - encouraged peer-learning,
 - receiving multiple viewpoints on the case, and
 - reflectively forming their own approach to the same case





A Single Event Can Improve IPE Skills

- Encouraged thoughts about interprofessional collaboration for a variety of patients across different setting.
- Worthy learning experience
- In-person event with both hands-on and observation portions



Nieuwoudt et al., 2021
Alrasheed et al., 2021
Cortés-Rodríguez et al., 2021
Reime et al., 2017
Washington et al., 2022

Limitations



No
comparison
group

Post-test
survey term
“patient”

Implications for Education

- Worthwhile IP event in the curriculum
- Involve another health profession student as a patient
- Opportunity to manage stress and anxiety



An Ungraded OSCE Provides One Feasible Method




- 1) intentionally improve student well-being by decreasing stress and anxiety for simulation exams
- 2) provide opportunities for simulated clinical experiences
- 3) develop a collaborative workforce



Design Logistics and References



A close-up photograph of a person's hand holding a blue pen, poised to write on an open book. The background is blurred, showing another person's hand and a patterned garment. The lighting is soft and natural, highlighting the texture of the paper and the grip of the pen.

Journal Article Coming

- "Using an Ungraded Interprofessional Clinical Examination to Decrease Student Stress and Anxiety for a Skill-based Exam"
- Journal of Occupational Therapy Education



Second Year Changes

- Additional questions on pre and post-tests
- Pre-work of videos about OT and nursing or built into the event (campus dependent)
- Gave scenarios to nursing students beforehand (not role-playing styles)
- Modified time frame to 20-minute simulations
- During the large group debrief, incorporated more RN side so not so heavily focused on OT



Future Directions

- Further integrate into curricula
- Advocate for additional events
- Examine the effectiveness of promoting professions
- Examine different models for distance students (telehealth, etc.)



Take Away and Contact Information

Interprofessional ungraded OSCEs can help prepare students for simulation-based examinations, build a cohesive workforce, and ultimately improve patient care.

McKenzie Behrendt, OTD,
OTR/L,

Mbehrendt@unmc.edu

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