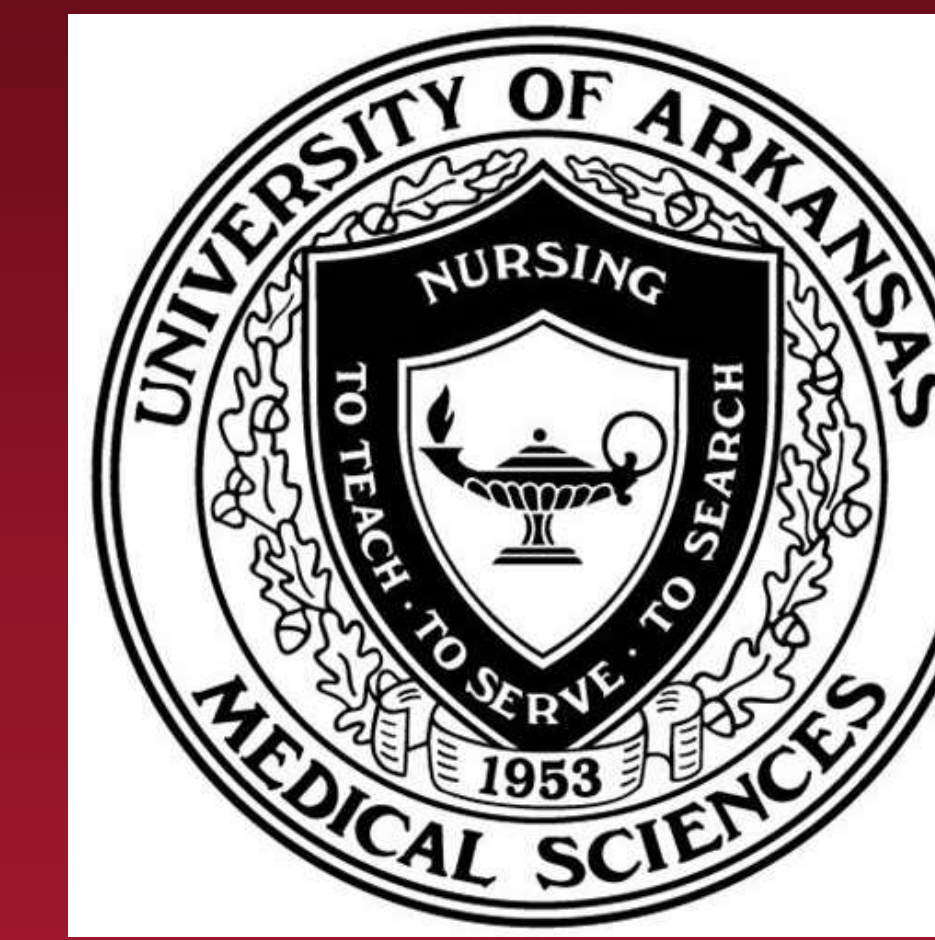


# An OSCE to Evaluate Preventive Healthcare Competence in a Preclinical Course

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## Background & Significance

- NURS 7115: Clinical Prevention and Health Promotion is a third-semester course (preclinical) for nurse practitioner students.
- Traditionally, this course has involved didactic content, with students demonstrating competence through written assignments and presentations.
- Traditional methods do not allow for assessment of students' ability to apply the preventive healthcare content.
- Current evidence demonstrates didactic content alone is often insufficient.
- Evidence indicates more optimal student outcomes with simulation experiences combined with didactic instruction.

## Objectives

- Evaluate the effect of scaffolding contact, didactic content followed by a summative OSCE on students' knowledge and confidence in providing preventive healthcare recommendations.
- Evaluate students' competence in providing individualized preventive healthcare recommendations using plain language and shared decision-making.
- Obtain students' evaluation of the effectiveness of the OSCEs in attaining course outcomes.
- Obtain faculty and Standardized Patients (SPs') evaluation of the effectiveness of the OSCEs in attaining course outcomes.

## Methods

- Students' knowledge and confidence in providing preventive healthcare recommendations, using plain language and shared decision-making, were evaluated 3 times during the semester.
- Course faculty developed 3 OSCE scenarios-pediatric, adult, and psychiatric-mental health-with the Director of the CON IPSC.
- OSCEs were based on didactic content delivered during the first 8 weeks of the course.
- SPs were trained on scenarios, anticipated student recommendations, questions to elicit/clarify preventive healthcare, recommendations, and observations to make as a patient evaluator.
- Students had access to assigned OSCE scenario background information 1 week prior to OSCE so they could prepare appropriate screenings and immunizations to recommend to their patient and prepare to utilize plain language communication.
- Students participated in 30-minute Zoom sessions with a pre-brief from faculty, 15-minute patient encounter to provide preventive healthcare guidance, followed by feedback from the SPs and faculty.
- Students completed knowledge tests of the content prior to didactic work, after didactic work, and following the OSCE.
- We compared data for students who responded at  $\geq 2$  time points to optimize sample size.
- Analysis was through Wilcoxon signed rank test adjusted for multiple comparisons using the Benjamini & Hockberg correction.
- Students completed a self-reflection following the OSCE.

## Results

- 24 students completed the course
- 23 provided data at T1, 19 at T2, and 23 at T3
- 14 students provided data for all time points.
- There was a significant difference in:
  - Knowledge scores from T1 to T3 ( $p = 0.03$ ).
  - Confidence in preventive health recommendation from T2 to T3 ( $p = 0.03$ )
  - Confidence in shared decision making from T1 to T2 ( $p = 0.2$ ) and T2 to T3 ( $p = 0.01$ )
- All students scored  $> 80\%$  on the OSCE.

## Conclusions

- Students enjoyed applying knowledge in a realistic scenario
- Students felt the OSCE increased knowledge of preventive healthcare, communication, and shared decision making
- Students felt they could apply the OSCE to their future clinical courses and practice as a NP.
- Including the OSCE in this course was an effective method of reinforcing course content and evaluating competence in recommending preventive healthcare.

Change Between Time Points Including All Paired Data

	T1 – T3 (N = 19)			T1-T2 (N = 15)			T2-T3 (N = 16)		
	Mean (SD) Median (IQR) T1	Mean (SD) Median (IQR) T3	$p$	Mean (SD) Median (IQR) T1	Mean (SD) Median (IQR) T2	$p$	Mean (SD) Median (IQR) T2	Mean (SD) Median (IQR) T3	$p$
<b>Knowledge</b>	20 (2.54) 20 (2.00)	22 (2.54) 23 (4.00)	<b>0.03</b>	20 (2.53) 19 (2.50)	21 (2.11) 21 (2.50)	0.14	21 (2.24) 21 (3.50)	22 (2.73) 22 (4.25)	0.70
<b>Preventive health recommendations</b>	4 (1.02) 3 (1.00)	4 (0.81) 4 (1.00)	0.57	3 (1.06) 3 (1.00)	3 (0.91) 3 (1.00)	0.86	3 (0.96) 3 (1.00)	4 (0.96) 4 (1.00)	0.03
<b>Plain language communication</b>	4 (0.78) 4 (1.50)	4 (0.88) 4 (1.50)	0.66	4 (0.85) 4 (2.00)	4 (0.70) 4 (1.00)	0.55	4 (0.62) 4 (1.00)	4 (0.96) 4 (1.00)	1.00
<b>Shared decision making</b>	4 (0.69) 4 (1.00)	4 (0.60) 4 (0.50)	1.00	4 (0.68) 4 (1.00)	4 (0.83) 3 (1.00)	<b>0.02</b>	4 (0.82) 3 (1.00)	4 (0.50) 4 (0.00)	0.01

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## Limitations

- This evaluation was limited by small class size and incomplete data.
- The students had high median scores on all measures.

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