

**Heartland Innovations in Interprofessional Practice and Education Summit • July 17-18, 2025** **ONLINE**

# **Transforming Futures:** Innovation and Disruption in Interprofessional Health Care and Education

  
**DES MOINES UNIVERSITY**  
MEDICINE & HEALTH SCIENCES



# Occupational Therapy and Pharmacy IPE Roles in Medication Management for Neurodiverse Populations

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# Disclosure

I do not have any financial relationships with ineligible companies to disclose.

# What is First Place?



Creighton  
UNIVERSITY

School of Pharmacy  
and Health Professions

A residential facility for the young adult neurodiverse (ND) population, such as Autism, focused on developing independent living skills for the first time

Community collaboration established in 2021 between Creighton and First Place

- Resident need for medication management skills
- Started with OT and Pharmacy, added PT in 2024

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# Interprofessional Event

Held 2-3 times each semester  
at First Place or Creighton

Faculty Mentors

Student Ambassadors

Lead and create activities  
for small group  
presentations

Student mentors during  
consultations



# Ambassador Led Presentation Topics

How to speak with healthcare professionals about medications

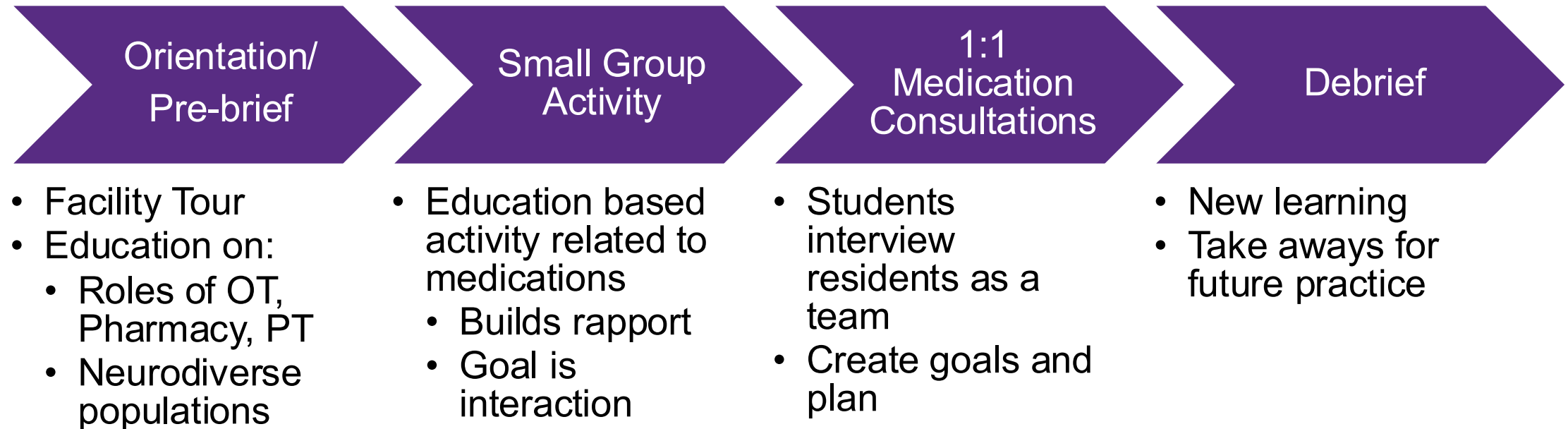
Side effect management

Traveling with medications

Reading Medication Labels



# Day of Event



# Interview Guide for Pharmacy and Occupational Therapy Students

Pharmacy	Occupational Therapy
<u>Review any allergies with the resident.</u> What allergies do you currently have? What was the nature of the reaction?	<u>Medication routine</u> – Is every day the same? Do you have to take your medications with you? Where do you store your medications?
<u>List over the counter (OTC), vitamins and herbal supplements.</u> -What OTC medications are you taking? ...vitamins? ...herbal supplements?	<u>Medication schedule</u> – How can I keep track of my schedule and mark off that I did it? What is the hardest part about taking or remembering to take your medications? What do you do currently to take your medications on time?
<u>List prescription medications by name and how they take them.</u> -What prescription medications are you currently taking? -How do you take them?	<u>Motivation to take medication</u> – What motivates you to take your medication on time? Does anyone else help you take your meds or remind you take them?
<u>Review with the residents what medicines are used for.</u> -What did your doctor tell you this medication was used for?	<u>Fine motor skills</u> – Do they have strength to open the lid? Push the meds through the packaging? Can you pick up individual pills and drop them into the pill container or your mouth?
<u>Discuss any side effects resident may be experiencing.</u> -If any, what side effects are you currently experiencing?	<u>Safety</u> - Any difficulties swallowing pills? Any medication falls risks?
<u>Healthcare management</u> – Do they need to call pharmacy to refill prescription or have any medication questions? Or call their doctor or other provider to ask a question or make an appointment?	

# Study



## Objective

- To investigate student's professional competency working with the ND population, knowledge of professional roles with medication management, and attitudes towards interprofessional teams and the team approach to care.

# Study

## Methods

- Pre and post survey
- Students attending events during 2023-2024
- Adapted Simko, et. al. (2017) professional role assessment
- IP assessment – SPICE-R2

1. I am confident in my ability to work with a neurodivergent population to maintain a climate of mutual respect and shared values.
2. I am confident in my ability to use the knowledge of my profession's role to plan patient care for a neurodivergent population.
3. I am confident in my ability to communicate effectively with a neurodivergent client/resident.
4. I am confident in my ability to collaborate in a health care team to plan, deliver and evaluate care for the neurodivergent population.

INSTRUCTIONS:						
Please be candid as you indicate the extent of your disagreement/agreement with each of the following statements related to interprofessional teams and the team approach to care.		<i>Strongly Disagree (1)</i>	<i>Disagree (2)</i>	<i>Neutral (3)</i>	<i>Agree (4)</i>	<i>Strongly Agree (5)</i>
1. [T]	Working with students from different disciplines enhances my education	1	2	3	4	5
2. [R]	My role within an interprofessional team is clearly defined	1	2	3	4	5
3. [O]	Patient/client satisfaction is improved when care is delivered by an interprofessional team	1	2	3	4	5
4. [T]	Participating in educational experiences with students from different disciplines enhances my ability to work on an interprofessional team	1	2	3	4	5

### Of Occupational Therapy Students

1. The role of an occupational therapist is very important in patient/client medication management.
2. I know the role of an occupational therapist in medication management.
3. The role of the pharmacist is very important in patient/client medication management.
4. I know the role of the pharmacist in medication management.

### Of Pharmacy Students

1. The role of the pharmacist is very important in patient/client medication management.
2. I know the role of the pharmacist in medication management.
3. The role of an occupational therapist is very important in patient/client medication management.
4. I know the role of an occupational therapist in medication management.

# Results - Demographics

## Participants:

- 11 OTS (47.8%), 12 RXS (52.2%)
- 10 in 1<sup>st</sup> year of program, 13 in 2<sup>nd</sup> year

## Previous experience with ND populations:

- None: 4 (17.4%)
- Exposure with family, friends, colleagues: 13 (56.5%)
- Exposure through work in medical/community settings: 15 (65.2%)
- Identify as being neurodivergent: 1 (4.3%)

# Results – Professional Competency with ND Population

Overall, confidence ( $M = 13.18$ ,  $SD = 1.50$ ) was significantly higher than before ( $M = 15.59$ ,  $SD = .73$ ),  $t(21) = 8.056$ ,  $p = <.001$ .

**Student confidence was significantly higher in ability to:**

- Work with a ND population to maintain a climate of mutual respect and shared values,  $p = .008$
- Use knowledge of their profession's role to plan patient care for a ND population,  $p = <.001$
- Communicate effectively with a ND client/resident,  $p = <.001$
- Collaborate in a health care team to plan, deliver, and evaluate care for the ND population,  $p = <.001$

# Results – Knowledge of Professional Roles

Overall knowledge of professional roles ( $M = 17.77$ ,  $SD = 3.39$ ) was significantly higher than before ( $M = 18.91$ ,  $SD = 3.42$ ),  $t(21) = 4.568$ ,  $p < .001$ .

## **Student agreement was significantly higher in:**

- The role of an OT is very important in patient/client medication management,  $p = .025$
- I know the role of an OT in medication management,  $p < .001$
- I know the role of the pharmacist in medication management,  $p = .011$

## **No significant difference in:**

- The role of the pharmacist is very important in patient/client medication management,  $p = .655$

# Results – Attitudes toward IP Teams

Attitudes towards interprofessional teams ( $M = 43.61$ ,  $SD = 7.13$ ) were significantly higher than before ( $M = 47.28$ ,  $SD = 3.44$ ),  $t(17) = 2.807$ ,  $p = .012$ . Significant difference in SPICE-R2 core competencies:

*[T] Interprofessional teamwork and team-based practice: None*

*[O] Patient outcomes from collaborative practice*

- Healthcare costs are reduced when patients/clients are treated by an interprofessional team,  $p = .018$

*[R] Roles/responsibilities for collaborative practice*

- My role within an interprofessional team is clearly defined,  $p = .011$
- I have an understanding of the courses taken by, and training requirements of other health professionals,  $p = .013$
- I understand the roles of other health professionals within an interprofessional team,  $p = .004$

The factor [R] did demonstrate significant difference for pre- ( $M = 12.65$ ,  $SD = 1.63$ ) and post-event ( $M = 14.10$ ,  $SD = 1.17$ ),  $t(19) = 4.781$ ,  $p < .001$ . [T] and [O] did not.

# Conclusion & Future Implications

OT and Pharmacy students demonstrated

- Increased confidence in their professional competency working with the ND population
- Increased knowledge of OT and pharmacy's role in medication management as well as OT's importance
- Improved attitude towards IP teams, especially regarding roles/responsibilities for collaborative practice



# References

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# Questions?