

# Building Confidence in Interprofessional Competencies:

## A Telehealth Simulation of a Diabetes Management Case Among Pharmacy and Physician Assistant Students

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### Background

Interprofessional education (IPE) is essential for improving communication between healthcare providers, increasing patient safety, and optimizing patient care (Begley, 2019). Providers increasingly utilize telemedicine for interprofessional (IP) consultations to bridge geographic distance between providers and specialists, and address provider shortages (Wosik, 2020).

Incorporating telehealth simulations in the health professions curricula provides opportunities to practice interprofessional skills with students who are on different campuses or schedules. Chronic disease, like diabetes, is medically and socially complex and requires a significant IP communication, team collaboration, and knowledge about the roles of other team members (IPEC 2016).

**This simulation aimed to show the feasibility of telecommunication to teach IPE competencies and benefit of IP collaboration to improve patient care and address cost as a social determinant of health**

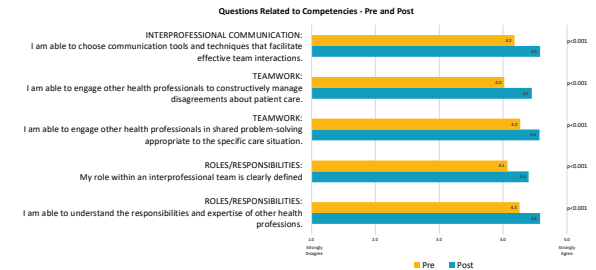
### Methods

- 15-minute IP consultation of a medically and socially complex diabetes case via Zoom.
- Students were previously taught communication skills such as SBAR.
- The dyad discussed options for medications and dose conversions in the context of the patient's other medical conditions and social factors.
- Students decided on a plan and used teach-back to confirm the plan.
- They received facilitator feedback within the 15-minute window.
- Every 15 minutes, a new student dyad rotated with each facilitator.
- The students completed a pre- and post-survey with 10 Likert scale questions and 4 open-ended questions.

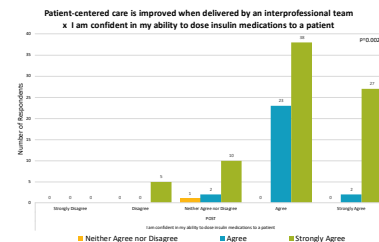


### Results

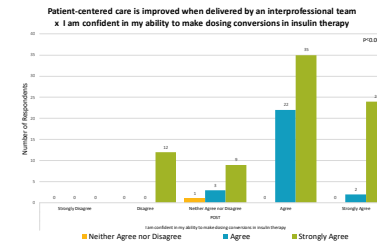
- The responses were coded on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). **Mean responses improved significantly from pre to post on all of the questions.**
- A non-parametric test on the ordered categories also demonstrated significant improvement from pre to post on all of the questions.
- Questions relating to three interprofessional competencies demonstrated significant improvement:** teams and teamwork ( $p < 0.001$ ), roles and responsibilities ( $p < 0.001$ ), interprofessional communication ( $p < 0.001$ ).



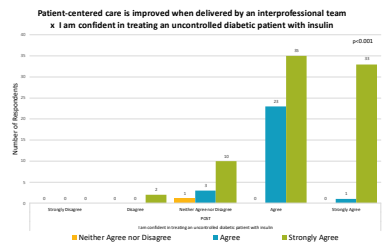
- We also analyzed the post-survey relationships of student perceptions if patient-centered care (PCC) is improved when delivered by an interprofessional team and student confidence in their ability to dose insulin ( $p = 0.002$ ), student confidence in the ability to make dosing conversions in insulin therapy ( $p < 0.001$ ), and student confidence in treating an uncontrolled diabetic patient with insulin ( $p < 0.001$ ).



Those who Agree that PCC is improved when delivered by an interprofessional team were more likely to Agree and less likely to Strongly Agree on their confidence in their ability to dose insulin medications to patients. Those who Strongly Agree that PCC is improved when delivered by an interprofessional team were less likely to Agree and more likely to Strongly Agree on their confidence in their ability to dose insulin medications to patients.



Those who Agree that PCC is improved when delivered by an interprofessional team were more likely to Agree and less likely to Strongly Agree on their confidence in their ability to make dosing conversions in insulin therapy. Those who Strongly Agree that PCC is improved when delivered by an interprofessional team were less likely to Agree and more likely to Strongly Agree on their confidence in their ability to make dosing conversions in insulin therapy.



Those who Agree that PCC is improved when delivered by an interprofessional team were more likely to Agree and less likely to Strongly Agree on their confidence in treating an uncontrolled diabetic patient with insulin. Those who Strongly Agree that PCC is improved when delivered by an interprofessional team were less likely to Agree and more likely to Strongly Agree on their confidence in treating an uncontrolled diabetic patient with insulin.

### Conclusion

- This IPE simulation demonstrated that dyads could solve a complex patient case in 15 minutes while practicing interprofessional competencies.
- The results indicate that if the student also has a positive association with patient-centered care delivered by an interprofessional team, there is increased student confidence in managing diabetes after the activity. More research will be required to explore the impact on this relationship.

### References

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