

# Interprofessional Education: A Virtual Case Study Approach

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## Background

- To exemplify the importance of teamwork, the College of Allied Health Professions (CAHP) at the University of Nebraska Medical Center (UNMC) is committed to supporting Interprofessional Education (IPE) amongst all professional programs.
- A study in 2017 indicated positive student outcomes from an interprofessional activity amongst the UNMC cytotechnology (CT) and radiation therapy (RT) programs.<sup>1</sup>
- With the addition of the UNMC Medical Nutrition (MN) program, the objective was to further investigate if an online interprofessional collaborative activities amongst professional programs improved knowledge of ancillary healthcare professions.

## Methods

- This IRB-approved study included UNMC students from 3 CAHP programs: 17 CT students, 8 MN students, and 6 RT students.
- Students partook in a pre-and post-survey using a Likert scale to assess knowledge of the professions, the methodologies used in their education, and their perception of the online nature of the activity.
- During the two-hour long online activity, each program designated students to do a brief presentation about their profession followed by a case study that offered visualization into a patient's journey through diagnosis, treatment, and follow-up care.
- Each program's unique methodologies (i.e. virtual microscopy, virtual environment radiotherapy training system (VERT), nutrition focused physical exam) were showcased during each presentation.

## Survey Results

Table 1. Students perception on Cytotechnology profession.

	PRE-SURVEY				POST-SURVEY			
	Strongly Agree	Agree	Neutral	Disagree	Strongly Agree	Agree	Neutral	Disagree
Please answer the following questions about Cytotechnology								
Know what a cytotechnologist is	9	4	0	0	3	10	0	0
Know the role of a cytotechnologist in screening & interpreting oral cancer	1	3	0	0	2	11	0	0
Know the impact of a cytotechnologist in patient health care	4	7	0	0	7	10	0	0
Know what virtual microscopy is	0	3	10	0	0	4	0	0
Know the impact of virtual microscopy in cytotechnology education	0	1	10	0	0	2	0	0
Know the impact of virtual microscopy in patient health care	0	0	2	0	0	0	0	0
The interprofessional activity will help me better understand the impact of a cytotechnologist in patient health care	0	0	2	0	0	0	0	0

Table 2. Students perception on Medical Nutrition profession.

	PRE-SURVEY				POST-SURVEY			
	Strongly Agree	Agree	Neutral	Disagree	Strongly Agree	Agree	Neutral	Disagree
Please answer the following questions about Medical Nutrition								
Know what a medical nutrition therapist is	0	0	0	0	14	0	0	0
Know the role of a medical nutrition therapist in screening/typing for oral cancer patient	0	0	0	0	14	0	0	0
Know the role of a medical nutrition therapist in patient health care	0	0	0	0	13	0	0	0
Know what Nutrition is and how to assess it using a Nutrition Focused Physical Exam	0	0	0	0	13	0	0	0
Know the impact of the Nutrition Focused Physical Exam in medical nutrition education	0	0	0	0	13	0	0	0
Know the impact of the Nutrition Focused Physical Exam in patient health care	0	0	0	0	15	0	0	0
The interprofessional activity will help me better understand the impact of a medical nutrition therapist in patient health care	0	0	0	0	10	0	0	0

Table 3. Students perception on Radiation Therapy profession.

	PRE-SURVEY				POST-SURVEY			
	Strongly Agree	Agree	Neutral	Disagree	Strongly Agree	Agree	Neutral	Disagree
Please answer the following questions about Radiography								
Know what a radiation therapist is	0	10	0	0	10	0	0	0
Know the role of a radiation therapist in treating oral cancer	0	0	0	0	11	0	0	0
Know the impact of a radiation therapist in patient health care	0	7	0	0	11	0	0	0
Know what a linear accelerator is	0	0	0	0	0	0	0	0
Know the impact of virtual radiation therapy in radiation therapy education	0	0	0	0	0	0	0	0
Know the impact of virtual radiation therapy in patient health care	0	0	0	0	0	0	0	0
The interprofessional activity will help me better understand the impact of a radiation therapist in patient health care	0	0	0	0	0	0	0	0

*The online interprofessional activity will help me better understand how the role of the cytotechnologist, radiation therapist, and medical nutritionist fit into the health care team in providing patient care*



Figure 1. Students overall perception on the activity.

*The online activity will allow the visualization of the above mentioned strategies (i.e. virtual microscopy & Nutrition Focused Physical Exam)*

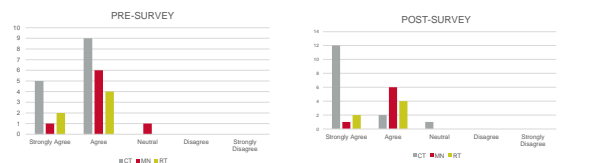


Figure 2. Students perception on the ability to visualize learning tools via an online platform.

*I would prefer an online interprofessional activity over an in-person interprofessional activity*

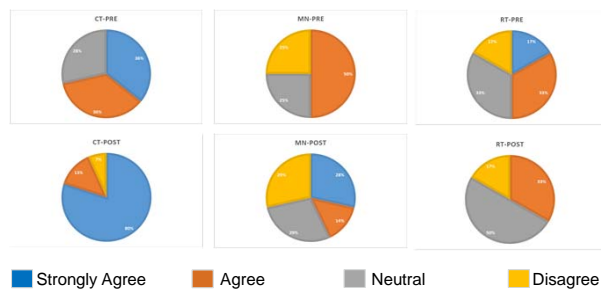


Figure 3. Students perception on the favorability of online IPE activities.

## Discussion

- The data in Tables 1-3 show that the IPE activity increased knowledge in the professions represented as well as the educational methodologies used in their training programs.
- Figures 1-3 indicates the online nature of the IPE activity was sufficient in meeting the activity objectives.
- At a programmatic level, there was a mixed perception of continuing the online format versus in-person for future IPE events. This may be due to:
  - Zoom fatigue brought on by the pandemic.
  - Cytotechnology students are already well versed in online educational activities due to the nature of the program.

## Conclusion and Future Directions

- The success of the activity illuminates the possibility of future online IPE activities amongst UNMC CT, MN, and RT student cohorts.
- Similar to a previous study<sup>2</sup>, our online IPE activity also eliminated the burden of logistical planning for space and extended time.
- With current virtual technologies available, IPE activities amongst CT, MN, and RT students can be conducted anytime-anywhere to further promote the interprofessional teamwork amongst healthcare profession students located all across the country.
- In future, we plan to include other professional programs in our IPE activity to further enhance the IPE experience.

## References

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