Inter-Professional Approach In The Healthcare Professions

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ABSTRACT

Inter-Professional Education allows for an understanding of the roles and responsibilities of all health professions. Collaboration in health care, improving systems and skills and identifying best practices of interdisciplinary team based care can result in a reduction of communication errors and costs. Research correlating Inter-Professional Education with an increase in communication, quality care and patient safety, prompted the formation of the Inter-Professional Education (IPE) Committee at Sacred Heart University, College of Health Professions. The committee consists of twelve full time faculty from the undergraduate and graduate healthcare programs in the college. The committee meets once a month, ultimately creating inter-disciplinary activities for the undergraduate and graduate healthcare programs in the college. There are several activities offered to all students in health care disciplines, which commence in August and end in April. Previously held beliefs about other health care professions are explored and an appreciation for the contributions of all team members is developed.

INTRODUCTION

Since the release of the 1988 World Health Organization (WHO) report, Learning Together to Work Together for Health, which focused on the need for inter-professional education (IPE) programs, various forms of IPE curricula have been implemented within institutions of higher education and health care. [11] The demand for IPE is in part a result of the multifaceted nature of the majority of health problems and health care delivery systems. No individual from a single discipline can adequately address the multitude of health-related problems confronting individuals. IPE and subsequent clinical collaboration may have an important role in the shaping of health care reform. [6] The World Health Organization has identified inter-professional education as one of its initiatives to improve health care delivery. [8] In the report, To Err Is Human, collaboration across disciplines was identified as a mechanism for increasing patient safety. [7]) The authors of the report, Health Professions Education: A Bridge to Quality, identified five competencies believed to be essential to the education of health professionals, one of which was working in inter-disciplinary teams. Integrating that collaboration throughout student education was suggested as the way to achieve successful collaboration.

Inter-Professional education exists when students form two or more professions that learn about, from and with each other to enable effective collaboration and improve health outcomes. [12] Inter-professional learning arises as a result of interaction among students from different professions [3] In the Institute of Medicine (IOM) report "*To Err Is Human: Building a Safer Health System*", medical errors, including failures in communication and teamwork were cited as the cause of up to 98,000 patient deaths **annually** [9]

Team-based care has legislative support through the Patient Protection and Affordable Care Act of 2010 and the emergence of inter-professional policy and practice development organizations, including the Patient-Centered Primary Care Collaborative and the Inter-Professional Education Collaborative (IPEC). Under the new rule, cooperation in patient care is more important than professional prerogatives and roles. The new rule emphasizes a focus on good communication among members of a team, using all the expertise and knowledge of team members and, where appropriate, sensibly extending roles to meet patients' needs [4] Coordination of care across clinicians and settings has been shown to result in greater efficiency and better clinical outcomes. [1]

Principles of Team-Based Health Care are comprised of Shared goals: The team including the patient and, where appropriate, family members or other support persons work to establish shared goals that reflect patient and family priorities, and can be clearly articulated, understood, and supported by all team members. Organizational factors that enable establishing and maintaining clear roles include providing time, space, and support for inter-professional education and training, including explicit opportunities to practice the skills and hone the values that support teamwork. facilitating communication among team members regarding their roles and responsibilities, redesigning care processes and reimbursement to reflect individual and team capacities for the safe and effective provision of patient care needs.

Clear roles: Maintains expectations for each team member's functions, responsibilities, and accountabilities, optimizing the team's efficiency and making it possible for the team to take advantage of division of labor. Factors that enable establishing and maintaining clear roles include providing time, space, and support for inter-professional education and training, including opportunities to practice the skills that support teamwork, facilitating communication among team members regarding their roles and responsibilities, and redesigning care processes to reflect individual and team capacities for the safe and effective provision of patient care needs.

Mutual trust: Team members earn each others' trust, creating greater opportunities for shared achievement. Factors that facilitate development of mutual trust include, providing time, space, and support for team members to get to know each other on a personal level. Embedding in education and hiring processes the personal values that support high-functioning team-based care, and developing resources and skills among team members for effective communication, including conflict resolution.

Effective communication: The team prioritizes and continuously

refines its communication skills. Consistent channels for candid and complete communication, which are accessed and used by all team members across all settings. Factors that sustain effective communication include providing ample time, space, and support for team members to meet in-person and virtually to discuss direct care and team processes, utilizing digital capacity including the electronic medical record, e-mail, Web portals, personal electronic devices, to facilitate continuous, seamless, communication.

Measurable processes and outcomes: The team agrees on and implements reliable and timely feedback on successes and failures in team function and goals. These are used to track and improve performance immediately and in the future. Factors that support measurement to improve team function and outcomes include prioritizing continuous improvement in team function and outcomes and ensuring that electronic systems routinely provide data to the teams providing care and can be immediately updated as indicated by frontline teams, developing routine protocols for measurement of team function, aimed at continuous improvement of the processes of team-based care, and providing ample time, space, and support for team members to engage in meaningful evaluation of processes and outcomes together.

Inter-professional Collaborative Practice Competencies. The Sacred Heart University, College of Health Professions Inter-Professional Education Committee utilized the IPEC Core Competencies, adapted from Inter-Professional Education Collaborative Expert Panel. [10]). *Core competencies for inter-professional collaborative practice: Report of an expert panel.* Washington, D.C.: Inter-professional Education Collaborative. The committee created the following competencies used to direct our Inter-Professional Education goals and learning activities. Students were given a pre and post Interdisciplinary Education Perception Scale (Figure 1) at the beginning and end of the academic year to determine the effectiveness of the program.

Values/Ethics Behavioral Expectations: Work with individuals of other professions to maintain a climate of mutual respect and shared values. Place the interests of patients and populations at the center of inter-professional health care delivery. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team- based care. Embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions. Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services. Develop a trusting relationship with patients, families, and other team members. Demonstrate high standards of ethical conduct and quality of care in one's contributions to team- based care. Manage ethical dilemmas specific to inter-professional patient/ population centered care situations. Act with honesty and integrity in relationships with patients, families, and other team members. Maintain competence in one's own profession appropriate to scope of practice.

Roles/Responsibilities Behavioral Expectations: Use the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served. Communicate one's roles and responsibilities clearly to patients, families, and other professionals. Recognize one's limitations in skills, knowledge, and abilities. Engage diverse healthcare professionals who complement one's own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs. Explain the roles and responsibilities of other care providers and how the team works together to provide care. Communicate with team members to clarify each member's responsibility in executing components of a treatment plan or public health intervention. Forge interdependent relationships with other professions to improve care and advance learning. Engage in continuous professional and inter-professional development to enhance team performance. Use unique and complementary abilities of all members of the team to optimize patient care.

Inter-professional Communication Behavioral Expectations: Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease. Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function. Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible. Express one's knowledge and opinions to team members involved in patient care with confidence, clarity, & respect, working to ensure common understanding of information, treatment & care decisions. Listen actively, and encourage ideas and opinions of other team members. Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others. Use respectful language appropriate for a given difficult situation, crucial conversation, or inter-professional conflict. Recognize how one's own uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team, contributes to effective communication, conflict resolution, and positive inter-professional working relationships (University of Toronto, 2008). Communicate consistently the importance of teamwork in patient-centered & community-focused care.

Team and Teamwork Behavioral Expectations: Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable. Work with individuals of other professions to maintain a climate of mutual respect and shared value Describe the process of team development and the roles and practices of effective teams. Develop consensus on the ethical principles to guide all aspects of patient care and team work. Engage other health professionals—appropriate to the specific care situation—in shared patient- centered problem-solving. Integrate the knowledge and experience of other professions— appropriate to the specific care situation—to inform care decisions, while respecting patient and community values and priorities/ preferences for care. Apply leadership practices that support collaborative practice and team effectiveness. Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among healthcare professionals and with patients and families.

Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care. Reflect on individual and team performance for individual, as well as team, performance improvement. Use available evidence to inform effective teamwork and team-based practices. Perform effectively on teams and in different team roles in a variety of settings.

Approximately 250 students from the College of Health Professions undergraduate and graduate programs gather three times during the academic year to learn and perform activities in inter-professional education through a seminar series. The committee members create twenty-five groups with ten members each, representing their various health care professions. The group participates in a power-point session on one of the Inter-Professional Collaborative Practice Competencies. Students then work collaboratively to read a case study and determine each profession's role in the scenario as well interdisciplinary components of the case. The following case is an example of the first session on Values/Ethics Competency and is held sometime in August:

Inter-Professional Education Seminar Series

Learning Competency #1: Values/Ethics of Inter-Professional Practice

Instructions to IPE Facilitator

Below is the case study each student will read within small break-out groups. After reading the case study, students will discuss the questions together (questions listed below at end of case).

The role of the facilitator is to help guide the conversation through discussing the questions, keep the group focused on their task, encourage conversation and contributions by all group members, and keep the discussion within the time frame allocated. Additionally, the facilitator fosters dialogue on the role of ethics/values of team members and how those values can affect patient care, and to promote an appreciation of how an Inter-Professional Team can improve patient health outcomes.

Case Study:

Mr. Rafael Hernandez, a 45-year-old Spanish-speaking man with type 2 diabetes and no other major medical issues, presents to the emergency department (ED) at a local hospital accompanied by his wife. His first encounter is with the registrar, who asks him in English why he came to the ED today. He tells her that he is having "fatiga" and that he needs to be seen. His English is difficult to understand but the symptom seems clear enough. The registrar takes down his information as best as possible and asks him to wait for the triage nurse.

After 20 minutes, Mr. Hernandez sees the nurse, who asks again in English what brings him to the hospital.

Mr. Hernandez: I have...fatiga...you know how you say in English...Fatiga.

Nurse: OK, how long have you been fatigued?

Mr. Hernandez: I have fatiga. Very much. It happens in the morning.

Nurse: OK, so you have been tired since this morning. Do you have any other symptoms? Any fevers or chills?

After several more questions, the nurse goes on to explain that the ED is very busy today and he may have to wait a while before seeing a physician, but he will be seen. She is surprised that he would come to the emergency room for a complaint like fatigue, which should be managed on an outpatient basis by his primary care provider.

After 60 minutes, Mr. Hernandez has not yet seen a physician, prompting him to ask if he can see someone soon. About 30 minutes later, he begins to develop some chest pressure, which he

had not noticed before. Feeling that he is already bothering the ED staff, he avoids telling anyone about this.

The doctor arrives and begins asking a similar set of questions but in more detail. The doctor uses more complicated terms, and it becomes clear that Mr. Hernandez is not able to communicate well enough in English to provide an accurate medical history. The doctor calls for an interpreter, who arrives 20 minutes later. After a few minutes of discussion, the interpreter realizes that there has been a misunderstanding, and the word "fatiga" was not referring to "fatigue" but rather to "shortness of breath." Since shortness of breath is a much more concerning symptom than fatigue, the doctor immediately orders an EKG. This shows that in fact the patient is having a myocardial infarction (heart attack).

The doctor returns and, through the interpreter, begins to explain the situation to Mr. Hernandez and his wife. He is going to need an angioplasty and possibly a stent to help save his heart muscle. After describing the risks and benefits of the procedure, she asks if Mr. Hernandez understands. He says he does, but the interpreter is skeptical. The discussion was very fast and complicated, and Mr. Hernandez may have felt uncomfortable voicing his concerns. However, the interpreter does not feel it is her role to intervene. The doctor asks if Mr. Hernandez has any allergies to IV contrast dye, and he says he does not, but again, it is not clear that he understands what this means.

Several hours after his initial presentation to the ED, Mr. Hernandez is taken to the cardiac catheterization lab to undergo what should be a routine balloon angioplasty and stenting of a blocked coronary artery. An hour later, the nurse appears again and finds Mrs. Hernandez in the waiting room anxious and concerned. The interpreter is no longer present, but the nurse proceeds to explain:

Mrs. Hernandez, unfortunately your husband had a very bad allergic reaction to the intravenous contrast that we use for the cardiac catheterization. We were not able to complete the procedure and he had to be taken to the intensive care unit. He told us that he had no allergy to IV contrast dye, didn't he?

Questions for guiding student discussion (students will have these questions included with case study):

Questions for discussion:

1. What are your beliefs, values, and perceptions about this situation? Discuss how this is a dilemma for YOU—what conflicts arise in yourself.
2. Who interacted with Mr. Hernandez? How did each interaction influence his care?
    a. Mrs. Hernandez
    b. ED registrar
    c. ED triage nurse
    d. Physician
    e. Translator
    f. Cardiologist
    g. Nurse in cardiac catheterization lab
3. What were the expressed and unexpressed values and cultural understanding of each member of the team? How did this affect the situation?
4. How could an Inter-Professional team have made a difference in the care for this patient?

Facilitator's Guide:

Patient safety events are generally not caused by one specific or well-defined error. They are the result of a breakdown in communication and gaps in systems of care on many levels. This case exemplifies that breakdown in a way that will most likely be familiar to most who work in a health care setting. We will walk through these step by step to understand what happened and how Mr. Hernandez's care was compromised.

• Registrar did not recognize that the patient had limited English proficiency (LEP) and did not relay this information to the clinical team.

This initial problem may have led to a delay in the triage process and to a long delay in obtaining a qualified medical interpreter. However, blame for this should not fall on the shoulders of one individual registrar. It is likely that she was never trained on how to identify a patient's language needs, how to record this information in the medical record, or how to communicate it to the clinical team either verbally or through a standard flagging system.

This problem highlights the need for systematic collection of racial and ethnic data, language preference, and English proficiency, which is absolutely necessary to adapt current systems to better identify medical errors in LEP patients. It is doubtful a systematic process of calling for an interpreter existed that could be initiated by the registrar alone or in quick consultation with the care team. Registrars may be the first point of contact with an LEP patient. To ensure safe care for LEP patients, they must be included in a team-based approach to identifying and addressing language needs.

• Triage nurse did not recognize the need for a qualified medical interpreter.

The next level of missed opportunity occurred at the level of the triage nurse. The situation here is similar to that of the registrar. However, in this case, the assumption that effective communication is occurring without an interpreter leads to the first major safety issue. By not recognizing that by "fatiga" the patient means "shortness of breath," the nurse triages Mr. Hernandez to a low-acuity section of the ED, causing a long delay in his care. If an interpreter had already been assigned to the patient, or if the nurse had called for an interpreter immediately, this situation may have been avoided or mitigated. Again, this requires a system in place, a set of processes and education around these processes so that it is not a voluntary decision by a clinician who is already pressed for time but rather, the standard of care. This problem highlights the importance addressing root causes to prevent medical errors among LEP patients by training staff on the use of interpreter services and cultural competency.

• Physician does not work effectively with the interpreter.

Although the physician eventually realizes that she is not able to obtain an accurate history from the patient and calls for an interpreter, she does not work effectively with the interpreter. This problem highlights the need to address root causes to prevent medical errors among LEP patients by training providers on interpreter use, cultural competency, and patient advocacy. Again, the goal is not to blame the individual but to understand the processes needed to provide safe care for LEP patients.

The physician could have improved her interaction with the interpreter and the care team in at least two major ways:

1. She could have created a safe environment for effective communication by starting out with a brief "huddle" with the interpreter and the nurse during which she summarized the clinical situation. This may have allowed the interpreter to feel empowered to speak up when she felt the patient did not understand the physician.
2. She could have learned certain skills for how to work effectively with an interpreter, such as speaking as clearly as possible, minimizing medical jargon, pausing after every sentence to allow for the interpretation, and checking patient understanding through a method such as teach-back. Had she done this, she may have realized that the patient had no idea what a contrast dye allergy was and that he in fact had experienced a severe reaction to contrast after a CT scan many years ago.

• Interpreter does not speak up when she realizes that the patient does not understand.

The interpreter does a good job early in this interaction to identify the miscommunication around the word "fatiga." In this context, she is acting as a patient safety advocate, not just an interpreter. However, she later allows the care team to proceed with the cardiac catheterization even though she suspects that the patient does not understand the procedure or the question about contrast dye allergy.

This problem highlights two areas: (1) the need to foster a supportive culture for safety of diverse patient populations and thus ensure that staff are comfortable identifying issues, and (2) the need to improve reporting of medical errors for LEP patients by training staff on when to report and how to report effectively, and ensuring that they are empowered to do so.

Since interpreters may feel intimidated by the clinical care team, they may hesitate to speak up when they see a potential safety issue. It is crucial for the entire care team to create a safe environment for the identification of miscommunication or misunderstanding with LEP patients, particularly for interpreters who may be considered lower in the medical hierarchy. At the same time, interpreters need to feel empowered as to their important role in this regard.

If Mr. Hernandez's interpreter had spoken up in this case about the contrast allergy, a simple premedication regimen could have prevented the severe allergic reaction and allowed him to receive the angioplasty that could have prevented injury to his heart.

While this case may seem extreme, research shows that errors like these occur more frequently for LEP patients when interpreters are not involved in care. Other examples may include patients
taking medications incorrectly due to misunderstanding discharge instructions or refusing important procedures because of a lack of clear explanation. By re-sensitizing ourselves to the importance of effective communication with LEP patients, we can develop a culture of patient safety that will prevent errors like these from occurring. Ultimately, hospitals must routinely monitor patient safety for LEP patients so that they can track these situations and learn from errors that occur, with an eye toward prevention in the future.

The second session held sometime in November, is based on the Roles/Responsibilities Competency. The following is an example of the case used in this component:

IP TEAM MEETING: CASE "TOM" Part I: 10 minutes

Case Discussion Ground Rules

1. IP teams at each table. Make sure you are teamed with professions and persons you usually do not work with

2. Focus on the case and the contexts as written—don't project into future, unknown past, different settings, or unanswerable questions
3. Select a scribe. Use the "scribe" page listing each profession to answer the discussion questions at the end of each part of the case.

Tom: Part I (10 minutes)

Tom, a 48 y.o. male fell while on the treadmill at his fitness gym. The person on the treadmill next to Tom noticed him on the floor unable to get up so got a personal trainer working at gym. Tom complained of a tingling feeling in both hands. The trainer had difficulty understanding what Tom was trying to say as Tom seemed to have trouble figuring out what he wanted to say. Tom started to lose consciousness so the trainer called 911.

Guiding questions for your group discussion: In the context of the gym and the hand-off to the first responders discuss. . .

1. Articulate your group's understanding of each other's professional roles and responsibilities related to Tom at the gym and hand off to the ambulance
2. Identify what is distinctive and how the professions overlap
3. Identify each professions' areas of expertise, and skill and knowledge limitations in relation to Tom and these contexts

IP TEAM MEETING: CASE "TOM" Part II: 10 minutes
Case Discussion Ground Rules

1. IP teams at each table. Make sure you are teamed with professions and persons you usually do not work with
2. Focus on the case and the contexts as written—don't project into future, unknown past, different settings, or unanswerable questions
3. Select a scribe. Use the "scribe" page listing each profession to answer the discussion questions at the end of each part of the case.

Tom: Part II

Diagnostic imaging reveals Tom's diagnosis of a thrombo ischemic CVA of left middle cerebral artery. Tom was in the ICU and after a 2-day stay he is medically stable and ready to be transferred to the rehab floor.

Guiding questions for your group discussion: In the context of the ICU and the hand-off to the rehab floor discuss. . .

1. Articulate your group's understanding of each other's professional roles and responsibilities related to Tom and the ICU and Rehab floor contexts
2. Identify what is distinctive and how the professions overlap
3. Identify each professions' areas of expertise, and skill and knowledge limitations in relation to Tom and these contexts

IP TEAM MEETING: CASE "TOM" Part III: 10 minutes
Case Discussion Ground Rules

1. IP teams at each table. Make sure you are teamed with professions and persons you usually do not work with
2. Focus on the case and the contexts as written—don't project into future, unknown past, different settings, or unanswerable questions
3. Select a scribe. Use the "scribe" page listing each profession to answer the discussion questions at the end of each part of the case.

Tom: Part III (10 minutes)

Tom spent 3 weeks in intensive rehab and is being discharged home to his wife who works part-time. Tom and his wife have three children; two in high school and 1 in middle school. Tom has regained independent ambulation and is independent in ADLs. Tom continues to have difficulty with word recall and not yet able to return to work as a salesman or drive. Tom is anxious to return to work, drive, and run again.

Guiding questions for your group discussion: In the context of the discharge from the rehab floor, transition home, and possible home care discuss. . .

1. Articulate your group's understanding of each other's professional roles and responsibilities related to Tom and his discharge from Rehab to home
2. Identify what is distinctive and how the professions overlap
3. Identify each professions' areas of expertise, and skill and knowledge limitations in relation to Tom and these contexts

The students are given the following sheet to identify the inter-professional component of each health profession:

SCRIBE RECORDING SHEET: Tom Part I, II and III
Guiding questions for your group discussion:

1. Articulate your group's understanding of each other's professional roles and responsibilities related to Tom at the gym and hand off to the ambulance Identify what is distinctive in each profession and how the professions overlap
2. Identify each professions' areas of expertise, and skill and knowledge limitations in relation to Tom and these contexts

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CONCLUSION

The Inter-Professional Seminar Series has run for the past three years with positive student and faculty outcomes. Students are selected based on availability. A maximum of 250 students are accepted and there is always a wait list to attend. The series has allowed the IPE committee to offer a grant to encourage and support interdisciplinary scholarly or scholarship/research projects leading to publication, presentations, or grant acceptance. The Program provides up to a $1,000 award per team to be used for expenses associated with the project.

INTERDISCIPLINARY EDUCATION PERCEPTION SCALE

PRE / POST

You will be asked to complete this at the beginning and end of your placement. Thanks for your assistance.

Mother's date of birth (To allow us to match the pre and post responses): _________________________

Using the scale below, (Strongly Disagree–1 to Strongly Agree–6) please rate your perception of your profession and other disciplines.

DESCRIPTOR	Strongly Disagree 1	Moderately Disagree 2	Somewhat Disagree 3	Somewhat Agree 4	Moderately Agree 5	Strongly Agree 6
1. Individuals in my profession are well-trained.	1	2	3	4	5	6
2. Individuals in my profession are able to work closely with individuals in other professions.	1	2	3	4	5	6
3. Individuals in my profession demonstrate a great deal of autonomy.	1	2	3	4	5	6
4. Individuals in other professions respect the work done by my profession.	1	2	3	4	5	6
5. Individuals in my profession are very positive about their goals and objectives.	1	2	3	4	5	6
6. Individuals in my profession need to cooperate with other professions.	1	2	3	4	5	6
7. Individuals in my profession are very positive about their contributions and accomplishments.	1	2	3	4	5	6
8. Individuals in my profession must depend upon the work of people in other professions.	1	2	3	4	5	6
9. Individuals in other professions think highly of my profession.	1	2	3	4	5	6
10. Individuals in my profession trust each other's professional judgment.	1	2	3	4	5	6
11. Individuals in my profession have a higher status than individuals in other professions.	1	2	3	4	5	6
12. Individuals in my profession make every effort to understand the capabilities and contributions of other professions.	1	2	3	4	5	6
13. Individuals in my profession are extremely competent.	1	2	3	4	5	6
14. Individuals in my profession are willing to share information and resources with other professionals.	1	2	3	4	5	6
15. Individuals in my profession have good relations with people in other professions.	1	2	3	4	5	6
16. Individuals in my profession think highly of other related professions.	1	2	3	4	5	6
17. Individuals in my profession work well with each other.	1	2	3	4	5	6
18. Individuals in other professions often seek the advice of people in my profession.	1	2	3	4	5	6

Student IEPS - Luecht et al, (1990, Journal of Allied Health, 181-191) with permission.

Figure 1 was adapted to determine student's understanding regarding the inter-professional program. Students are asked to complete the tool pre and post participation