Knowledge and Readiness of Inter-Professional Education in Athletic Training and Nurse Practitioner Students: A Pilot Study

Nicole MacDonald, DrPH, ATC, CSCS, Jolene Baker, EdD, ATC, Lindsay Warren, MS, ATC, CSCS , Dayna Herrera, MSNed, RN, Lisa Bursch, DNP, RN
Department of Kinesiology and the School of Nursing, California Baptist University, Riverside, CA

ABSTRACT

Context: In 2003, the IOM and the WHO called for the development of interdisciplinary teams to increase healthcare quality and safety and urged healthcare educators to incorporate inter-professional education (IPE) routinely into the curriculum. Athletic trainers as healthcare professionals need to learn to practice as part of an inter-professional team. Objective: The objective was to determine athletic trainer (AT) and nurse practitioner (NP) students' knowledge and readiness for IPE, ability to define the roles and responsibilities of the respective disciplines, and work as part of an IPE team in caring for a patient. Design: Controlled intervention trial, with two groups: intervention, and control. Setting: Simulation lab at the School of Nursing at California Baptist University. Participants: Twenty entry-level Master of Athletic Training students and 8 Nurse Practitioner students. Data Collection and Analysis: The study was conducted around a simulated patient scenario. In the simulation, the AT students' goal was to respond to the scenario on the basketball court, provide immediate evaluation and care of the patient, then transfer care to a NP student at the clinic. The NP student would then perform their clinical evaluation and determine if any further treatment was needed. All 28 students were given a readiness questionnaire, Readiness for Inter-professional Learning Scale (RIPLS), to determine their knowledge of and readiness for IPE the day before the simulation. The day of the simulation students were split into two groups, those who would receive the intervention and those who would not. The students in the intervention group were allowed 30 minutes prior to the start of the simulation to review the simulation scenario and a written description of the respective disciplines and discuss them together. After the simulation all students were then given the RIPLS questionnaire again. The questionnaires were collected and analyzed for change in two ways: between intervention and control groups, and between pre and post questionnaire measures. Results: There was a significant difference found between the intervention and control groups on the RIPLS questionnaire given after the simulation (p=0.045) but not before the simulation (p=0.548). There were no significant differences found between pre and post questionnaires with either the intervention or control groups (p=0.129 and p=0.588, respectively). Conclusions: The students of the intervention group having foreknowledge of their respective roles were more prepared for the simulation as indicated by the significance in post-questionnaire results. The students of the intervention group had a more enriching experience and were able to work as a more cohesive medical team during the simulation. Although there were no statistically significant differences found between pre and post questionnaires within each group, the data suggests a difference may be recognized if the sample size were increased. This study revealed that there is a lack of knowledge of different healthcare professions' scope of practice, leading to the need for IPE in order to promote collaborative practice in athletic training with other professions.

BACKGROUND

In 2003, the IOM and the WHO called for the development of interdisciplinary teams to increase healthcare quality and safety and urged healthcare educators to incorporate inter-professional education (IPE) routinely into the curriculum. Interprofessional opportunities and socialization are critical features to the professional education of healthcare providers and are especially relevant in today's healthcare environment in which no practitioners practice in isolation.

The goals of IPE and Collaborative Practice (CP) are to increase patient outcomes and provide a more patient-centered environment. When the patient is at the center of their own health care, the healthcare system revolves around their needs rather than fiscal or space pressures. The patient doesn't necessarily get everything they want but the care is focused on the patient's goals and the professional expertise of the team. Interprofessional collaborative practice, as defined by the WHO (2010), is "when multiple health workers from different professional practices work together with patients, families and communities to deliver the highest quality of care." This type of practice requires a climate of trust where providers can comfortably turn to each other to ask questions without worrying that they will be seen as unknowledgeable. The WHO organized a study group (2010) that developed a global framework (Figure 1) for action on IPE and CP and its goal was to show the role of preparation of a collaborative-practice ready workforce that is driven by local health needs and local health systems designed to respond to those needs. In response to the call to action by the IOM and the WHO, the Interprofessional Education Collaborative (IPEC, 2011) panel of experts developed four interprofessional collaborative core competencies (Figure 2) intended to provide common ground that would be relevant across professions to address the essential preparation of clinicians for IPE practice. These IPE competencies built on each profession's disciplinary competencies in defining goals for IPE practice and provided a foundation in which to develop educational programs that brought disciplines together. As the concept of IPE evolved, in 2012 the WHO stated that, "Interprofessional education occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and to improve health outcomes."

Recognizing the need for educational changes in athletic training, the document Future Directions in Athletic Training Education (2012) published by the NATA Executive Committee for Education included reference to IPE. The authors recommended the following: "Inter-professional education should be a required component in professional and post-professional education programs in athletic training." Then again in December 2013, a work group commissioned by the NATA Executive Committee for Education (ECE) in the publication, Professional education in athletic training: An examination of the professional degree level, key finding #6 stated, "Professional education at the graduate level should facilitate inter-professional education." Athletic trainers have historically practiced inter-professionally, but that has not been intentionally addressed in professional and post-professional education programs.

PURPOSE

The purpose of the present study was to determine athletic trainer (AT) and nurse practitioner (NP) students' knowledge and readiness for IPE, ability to define the roles and responsibilities of the respective disciplines, and work as part of an IPE team in caring for a patient.

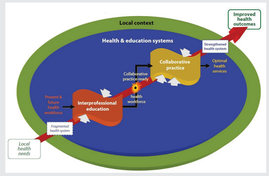

Figure 1: Framework

Figure 2: Core Competencies

METHODS

The present study was a pre-test, post-test intervention trial. The study was conducted around a simulated patient scenario in the School of Nursing simulation lab at California Baptist University. Twenty entry-level Master of Athletic Training students and 8 Nurse Practitioner students participated in the study. In the simulation, the AT students' goal was to respond to the scenario on the basketball court, provide immediate evaluation and care of the patient, then transfer care to a NP student at the clinic. The NP student would then perform their clinical evaluation and determine if any further treatment was needed. All 28 students were given a questionnaire, Readiness for Inter-professional Learning Scale (RIPLS) (Cronbach's α = 0.90), to determine their knowledge of and readiness for IPE the day before the simulation. The day of the simulation students were split into two groups; those who would receive the intervention and those who would not. The students in the intervention group either participated in a previous simulation scenario (NP students) or watched the simulation scenario of a previous group (AT students). This group also received a 30 minute pre-briefing which included a discussion of a written description of the respective disciplines. After the simulation all students were given the RIPLS questionnaire again. The questionnaires were collected and analyzed for change in two ways: between intervention and control groups and between pre and post questionnaire measures. In addition, students participating in each individual simulation collaborated on the patient evaluation documentation and a debriefing questionnaire. Students were required to reflect on their own simulation as well as that of another group.

Patient Simulation

RESULTS

There was a significant difference found between the intervention and control groups on the RIPLS questionnaire given after the simulation (p=0.045) (Table 1) but not before the simulation (p=0.548). There were no significant differences found between pre and post questionnaires with either the intervention or control groups (p=0.129 and p=0.588, respectively). The ability to define the roles and responsibilities of the respective disciplines was demonstrated through discussions in the debriefing documents and portrayed in Table 2.

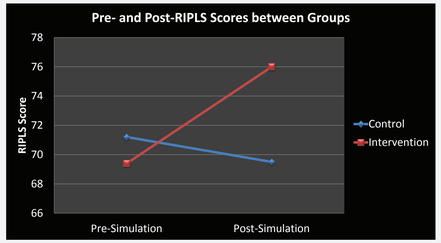

Table 1: Changes in readiness for IPE between the control and intervention groups

DISCUSSION

The students of the intervention group having foreknowledge of their respective roles were more prepared for the simulation as indicated by the significance in post-questionnaire results. Although there were no statistically significant differences found between pre and post questionnaires within each group, the data suggests a difference may be recognized if the sample size were increased. The students of the intervention group had a more enriching experience and were able to work as a more cohesive medical team during the simulation as evidenced by the student reflections.

The students identified the importance of understanding the scope of practice of the other provider as well as educating the other provider of their own scope of practice. They reflected that without this mutual understanding there was no foundation for trust and respect in one another's ability to provide quality patient care.

The faculty also conducted regular reflection throughout the planning and implementation of the IPE simulation. The need for a well thought out and descriptive patient case was clear prior to the simulation. After the completion of the simulation, the importance of pre-brief and de-brief was recognized. The students who received the pre-briefing exhibited better communication with all providers, increased confidence in their own abilities, and improved collaborative patient care. The de-brief provided all the students the opportunity they needed to discuss the experience with one another and better understand the implications of what they learned. This time also fostered the students' professional responsibility to educate others and advocate for the Athletic Training profession.

CONCLUSION

This study revealed that there is a lack of knowledge of different healthcare professions' scope of practice, leading to the need for IPE in order to promote collaborative practice in athletic training with other professions. Athletic trainers naturally collaborate with other healthcare providers as advocates for their patients; what is often overlooked is the opportunity to advocate for themselves. With greater intentionality, opportunities exist for athletic trainers to become leaders in IPE and CP in healthcare.

De-Brief Questions	Common Themes
What further information would you like to know about a NP?	• NP responsibility at the facility • NP access to resources • Differentiating between a nurse and a NP • NP scope of practice • NP specializations • NP needs when working collaboratively
What other information would the NP need to know about ATs that would have enhanced communication between the two practitioners?	• AT understanding of medical terminology • AT ability to take a full medical history • ATs are health care professionals with the tools and knowledge to respond to medical emergencies, take vital signs, and a patient's history. • AT role on site • AT scope of practice
What would have made your interaction and/or communication better?	• Defining roles and responsibilities of providers • Knowledge of where assistance is needed • AT Identifying themselves upon presentation of patient • An establishment of a "head" to avoid confusion on who presents • AT confidence in skills and advocacy for the patient

Table 2: sample of the common themes from several de-briefing questions

REFERENCES

1. Canadian Interprofessional Health Collaborative. www.cihc.ca.
2. Greiner AC, Knebel E, eds. (2003). Health Professions Education: A Bridge to Quality. IOM (Institute of Medicine) Committee on the Health Professions Education Summit. National Academy Press, Washington, DC.
3. Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.
4. Interprofessional Education Collaborative Conference Proceedings. (2011). Team Based Competencies: Building a shared foundation for education and clinical practice. Washington D.C.
5. World Health Organization (WHO). (2010). Framework for action on interprofessional education & collaborative practice. Geneva: World Health Organization.
6. National Athletic Trainers' Association, Executive Committee for Education. (2012). Future directions in athletic training education. Dallas, TX.
7. National Athletic Trainers' Association, Executive Committee for Education commissioned Work Group. (2013). Professional education in athletic training: An examination of the professional degree level. Dallas, TX.
8. Reid, R., Bruce, D., Alstaff, K., & McLernon, D. (2006). Validating the Readiness for Interprofessional Learning Scale (RIPLS), Medical Education, 40(5), 415-422.