Internet Journal of Allied Health Sciences and Practice

Volume 21 | Number 2 Article 1

March 2023

Athletic Training Preceptor Perceptions of Interprofessional Collaborative Practice in Clinical Learning Experiences

Jaclyn Schwieterman
Marietta College, sj004@marietta.edu

Michael Welch
Simmons University, michael.welch@simmons.edu

Anthony P. Breitbach
Saint Louis University, anthony.breitbach@health.slu.edu

Recommended Citation

Schwieterman J, Welch M, Breitbach AP. Athletic Training Preceptor Perceptions of Interprofessional Collaborative Practice in Clinical Learning Experiences. The Internet Journal of Allied Health Sciences and Practice. 2023 Mar 20;21(2), Article 1.

Athletic Training Preceptor Perceptions of Interprofessional Collaborative Practice in Clinical Learning Experiences

Abstract

Background: Interprofessional education and collaborative practice are standards that have been added to the accreditation standards for athletic training education. Athletic training educators will need to provide interprofessional experiences to their students to remain compliant with the standards. The goal of the mixed methods study was to explore athletic training preceptors' perceptions of interprofessional education and collaborative practice in the clinical setting. Methods: A total of 34 athletic training preceptors completed the full online survey, and of those, 5 completed the semi structured interview. Participants completed an asynchronous online module and a retrospective pretest survey using the ISVS-21 about their beliefs, behaviors, and attitudes about interprofessional education and practice. Participants that volunteered were asked additional questions during a semi-structured interview. Results: The findings of this study found that the educational module was effective in increasing the beliefs, behaviors, and attitudes of athletic training preceptors with a short online module and that preceptors had positive attitudes/beliefs about IPE/IPCP, however, preceptors identified lack of education about IPE/IPCP and barriers to implementing IPE/IPCP with and without students that influenced their use of IPE/IPCP. Conclusion: Athletic training programs could educate and develop athletic training preceptors in interprofessional education and clinical practice to help develop opportunities for athletic training students in the clinical setting.

Author Bio(s)

Jaclyn Schwieterman, EdD, ATC is the Chair and Program Director at Mariette College in Marietta, OH.

Michael Welch, PhD, ATC, CSCS is an Assistant Professor in the Biology Department at Simmons University.

Anthony Breitbach PhD, ATC, FASAHP, FNAP is the Interim Chair, Dept. of Nutrition and Dietetics as well as Professor and Director of the Athletic Training Program at St. Louis University.

IJAHSP™
The Internet Journal of Allied Health Sciences and Practice
Dedicated to allied health professional practice and education
Vol. 21 No. 2 ISSN 1540-580X

Athletic Training Preceptor Perceptions of Interprofessional Collaborative Practice in Clinical Learning Experiences

Jaclyn Schwieterman[1]
Michael Welch[2]
Anthony P. Breitbach[3]

1. Marietta College
2. Simmons University
3. Saint Louis University

United States

ABSTRACT

Background: Interprofessional education and collaborative practice are standards that have been added to the accreditation standards for athletic training education. Athletic training educators will need to provide interprofessional experiences to their students to remain compliant with the standards. The goal of the mixed methods study was to explore athletic training preceptors' perceptions of interprofessional education and collaborative practice in the clinical setting. **Methods:** A total of 34 athletic training preceptors completed the full online survey, and of those, 5 completed the semi structured interview. Participants completed an asynchronous online module and a retrospective pretest survey using the ISVS-21 about their beliefs, behaviors, and attitudes about interprofessional education and practice. Participants that volunteered were asked additional questions during a semi-structured interview. **Results:** The findings of this study found that the educational module was effective in increasing the beliefs, behaviors, and attitudes of athletic training preceptors with a short online module and that preceptors had positive attitudes/beliefs about IPE/IPCP, however, preceptors identified lack of education about IPE/IPCP and barriers to implementing IPE/IPCP with and without students that influenced their use of IPE/IPCP. **Conclusion:** Athletic training programs could educate and develop athletic training preceptors in interprofessional education and clinical practice to help develop opportunities for athletic training students in the clinical setting.

INTRODUCTION

The National Athletic Trainers' Association (NATA) and the Commission on Accreditation for Athletic Training Education (CAATE) recently updated accreditation standards for athletic training education programs, recognizing interprofessional education (IPE) as a necessary component of the athletic training curriculum.[1,2] IPE is defined as when two or more professions learn about, from, and with each other.[3] As of July 2020, professional athletic training education programs are now required to meet all CAATE standards, including the mandate to incorporate planned IPE.[4] In athletic training education, IPE continues to receive increased attention as a mechanism for developing interprofessional collaborative practice (IPCP) skills with other health care providers which requires a continued need for effective IPE implementation.[5] IPCP is defined as when two or more professionals work together to provide high-quality care.[3] Through the Interprofessional Education Collaborative (IPEC), the initiative to integrate IPE into the athletic training curriculum aims to create consistent competencies and outcomes that align athletic training education programs with other allied health professions.[6,7,8]

The importance of athletic training as a healthcare team member is based largely on the IPCP skills of athletic trainers. In the early 2000s, the Institute of Medicine (IOM), now referred to as the National Academy of Medicine (NAM), recommended all healthcare professionals be educated to deliver patient-centered care as members of an interprofessional team, emphasizing evidence-based practice and quality improvement.[9] Only recently introduced into the athletic training curriculum, this approach to healthcare highlighted athletic training education being behind other disciplines in IPE implementation.[10]

With IPE mandated by the CAATE as a requirement for accreditation standards,[4] recent athletic training IPE literature is focusing on the importance of didactic delivery. In addition to didactic delivery, clinical education is the learning environment for the development and application of IPCP skills.[11] Many athletic training education programs will focus on didactic learning experiences to meet the CAATE IPE standards, perhaps because it is easier to control and assess. However, focusing on clinical education produces more authentic learning for students as noted throughout the literature.

Collaborative skills are a marker of clinical abilities in today's ever-changing healthcare field. With the goal of developing collaborative healthcare professionals, the importance of providing interprofessional clinical experiences to athletic training students throughout their education is essential. During their clinical experiences, athletic training students are taught, mentored, and guided, by preceptors through socialization as future healthcare providers. Obtaining feedback regarding preceptor IPE/IPCP involvement helps to better orient athletic training education programs in their strategic implementation of IPE into clinical athletic training education.

As athletic training continues to expand throughout the healthcare arena, the importance of determining best practices for IPE and IPCP delivery is crucial in establishing better alignment of IPE/IPCP delivery amongst our colleagues across the healthcare team. Preceptor assessment should be implemented to determine the quality, quantity, and best practices used for effective delivery. This study focused on the practices athletic training preceptors utilize within their clinical practice around IPE/IPCP. The goals of this study included educating athletic trainer preceptors to be more effective in IPCP and identifying IPE/IPCP clinical practices that athletic training preceptors use with and without athletic training students.

METHODS

Design

This research study utilized a mixed-methods design. A pre-experimental retrospective pretest/posttest survey design measured the effectiveness of an online asynchronous IPE professional development module on beliefs, behaviors, and attitudes of athletic training preceptors. A qualitative design using semi-structured interviews with athletic training preceptors identified practices for utilizing interprofessional collaborative practice in the clinical setting.

Participants

A total of 49 preceptors completed at least some of the ISVS-21 survey. After removing incomplete data, a total of 34 preceptors fully completed the ISVS-21 survey. Of the 34 that completed, 5 participated in semi-structured interviews.

Demographic data collected from the preceptors can be found in Table 1. In addition to this demographic information, preceptors reported working in their health profession between 1-37 years. The number of years serving as a preceptor ranged from 1-20 years among the participants. Preceptors mentored between 1 student to 15 students on an annual basis and of the 34 participants, only one was a preceptor for another profession besides athletic training.

Table 1. Demographic Data

Highest Degree Completed	Bachelors	6 (17%)
	Masters	27 (79%)
	Doctorate	1 (3%)
Health Care Credential	Athletic Trainer	26 (76%)
	Athletic Trainer & CSCS or CES	7 (20%)
	Physical Therapist	1 (3%)
Clinical Setting as a Preceptor	Primary/Secondary School	14 (38%)
	College/University	16 (47%)
	Outpatient Clinic/Hospital System	4 (11%)
Describes clinical setting	1 profession present	23 (67%)
	2 or more professions present	11 (32%)
Prior education or development in IPE/IPCP	Yes	9 (26%)
	No	25 (73%)

Preceptors who participated in the semi-structured interviews were sent a gift card as a thank you for their participation in the study. A grant through Marietta College allowed the researchers to provide the participants with a gift for their time and participation.

Instrumentation

Participants viewed an asynchronous online IPE/IPCP development module and then completed the Interprofessional Socialization and Valuing Scale (ISVS) - 21. The IPE/IPCP development module included defining IPE/IPCP, the history of IPE in healthcare as well as athletic training, IPEC core competencies, and preceptor tips for including IPE/IPCP into clinical education for athletic training students. The ten-minute module was created for preceptors to watch at their leisure with a YouTube link for easy access to play on various devices. The ISVS-21 was completed by participants in a retrospective pretest format. Participants rated their beliefs, behaviors, and attitudes prior to watching the module and after simultaneously. The ISVS-21 measures the beliefs, behaviors, and attitude of the participant using 21 self-report items. Using a Likert scale, participants rated each item as 0 = NA to 7= to a very great extent.[12] The ISVS-21 can be used for clinical practice or educational opportunities in the classroom and is reliable to use with current healthcare practitioners and students. The ISVS-21 is reliable to be used with current healthcare practitioners and healthcare students and has a Cronbach alpha of 0.988 and a 95% confidence interval (CI) 0.985-0.991.[12]

Data Collection Procedures

All athletic training program administrators were contacted via email regarding study participation. Contact information for program administrators was taken from the CAATE website. This email contained a description of the study which included information to forward to the athletic training preceptors of their program. Information about the study was also posted to social media to allow the message to be shared with preceptors.

Athletic training preceptors received an email about the study from their program administrator or read about the study on social media. The preceptor read the study information, and if they agreed to participate in the study, they clicked on the link to take them to the online module and survey through Survey Monkey. At the end of the survey, preceptors opted to participate in a semi-structured interview. Preceptors that opted into the interviews were contacted by the researchers regarding further details.

Interviews were held with preceptors via zoom. The researchers asked questions pertaining to interprofessional practice as a clinician and preceptor. All interviews were recorded and transcribed using the zoom transcription. Participants were given alternate names to keep anonymity during the interviews. Interview questions followed a semi-structured interview guide developed by the researchers. The questions used during the interviews can be found in Table 2.

Table 2. Interview Questions

What is your opinion/attitude/belief towards collaborative opportunities with other health care professions during clinical education?
How many years have you served as a clinical preceptor?
What prior education or professional development have you experienced regarding IPE?
How would these prior feelings compare to your attitudes toward IPE/IPCP following the professional development module?
What standards/guidelines do you utilize regarding IPE/IPCP in your clinical education setting?
Can you tell me about interactions with healthcare providers in different fields during your time as a clinical preceptor?
Can you describe some collaborative opportunities your clinical students have been involved in?
What factors do you feel influenced the outcome of these IPE/IPCP student experiences (i.e. skill set, personality, confidence level, previous experience collaborating with other health disciplines, etc.)?
What (if any) barriers/challenges have you encountered in your own IPE/IPCP experiences as a clinical preceptor?
Looking back from where you are now as a clinical preceptor, were there any beneficial IPE/IPCP experiences in your own didactic or clinical education as a student you may or may not have realized were IPE/IPCP opportunities?
Is there anything else you think is important for me to know regarding your attitudes/beliefs towards IPE/IPCP or experience as a clinical preceptor?
Is there anything else about athletic training preparation pertaining to IPE or collaborative experiences that I haven't asked you?

Data Analysis

IBM® Statistical Package for Social Science (SPSS) Statistics software version 26 was used for all statistical analyses of quantitative data. All data collected through Survey Monkey did not include any identifying information.

All qualitative data was analyzed through conventional content analysis via open coding. Interview questions followed a semi-structured guide developed by a research member (See Table 2) with qualitative research experience and reviewed by remaining two research members: one with content experience in IPE, and the other with qualitative research experience and methodological expertise in IPE. Collectively, the research members edited the interview guide resulting in rewording and removal of questions for clarity and to avoid redundancy and promote overall effectiveness. In addition, this revision aided in developing a conversational style delivery format for open-ended responses as well as determining face and content validity of the questions.

This study utilized open coding with all three research members reviewing each transcript individually and without comparison to group codes as they saw them under subcategories/themes. Initial coding utilized IPEC competencies (See Table 3) for reviewing and categorizing themes that align with IPEC domains. The use of transcripts to also serve as a codebook for documenting notes, codes, connections, and themes, and can allow for ease of identifying emerging themes when re-reading transcripts through content analysis. At the final stage of data analysis, each research member compared their respective themes and collectively agreed on the results presented in this study. Establishing rigor and trustworthiness was met through credibility, dependability, confirmability, and transferability.[13] In addition, member checking, participant-driven data, accurate transcription of interviews, data-driven coding, and attention to context during the analysis was ensured.

Table 3. IPEC Competencies[20]

Values/Ethics for Interprofessional Practice: Work with individuals of other professions to maintain a climate of mutual respect and shared values
VE 1- Place interests of patients and populations at center of interprofessional health care delivery and population health programs and policies, with the goal of promoting health and health equity across the life span.
VE 2- Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care.
VE 3- Embrace the cultural diversity and individual differences that characterize patients, populations, and the health team.
VE 4- Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions and the impact these factors can have on health outcomes
VE 5- 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 and programs.
VE 6- Develop a trusting relationship with patients, families, and other team members (CIHC, 2010).
VE 7- Demonstrate high standards of ethical conduct and quality of care in contributions to team-based care.
VE 8- Manage ethical dilemmas specific to interprofessional patient/ population centered care situations.

VE 9- Act with honesty and integrity in relationships with patients, families, communities, and other team members.
VE 10- Maintain competence in one's own profession appropriate to scope of practice.
Roles/Responsibilities: Use the knowledge of one's own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations.
RR 1- Communicate one's roles and responsibilities clearly to patients, families, community members, and other professionals.
RR 2- Recognize one's limitations in skills, knowledge, and abilities.
RR 3- Engage diverse professionals who complement one's own professional expertise, as well as associated resources, to develop strategies to meet specific health and healthcare needs of patients and populations
RR 4- Explain the roles and responsibilities of other providers and how the team works together to provide care, promote health, and prevent disease
RR 5- Use the full scope of knowledge, skills, and abilities of professionals from health and other fields to provide care that is safe, timely, efficient, effective, and equitable
RR 6- Communicate with team members to clarify each member's responsibility in executing components of a treatment plan or public health intervention
RR 7- Forge interdependent relationships with other professions within and outside of the health system to improve care and advance learning
RR 8- Engage in continuous professional and interprofessional development to enhance team performance and collaboration
RR 9- Use unique and complementary abilities of all members of the team to optimize health and patient care.
RR 10- Describe how professionals in health and other fields can collaborate and integrate clinical care and public health interventions to optimize population health.
Interprofessional Communication: Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease.
Communication: Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease
CC 1- Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function.
CC 2- Communicate information with patients, families, community members, and health team members in a form that is understandable, avoiding discipline-specific terminology when possible
CC 3- Express one's knowledge and opinions to team members involved in patient care and population health improvement with confidence, clarity, and respect, working to ensure common understanding of information, treatment, care decisions, and population health programs and policies
CC 4- Listen actively, and encourage ideas and opinions of other team members.
CC 5- Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others
CC 6- Use respectful language appropriate for a given difficult situation, crucial conversation, or conflict.
CC 7- Recognize how one's uniqueness (experience level, expertise, culture, power, and hierarchy within the health team) contributes to effective communication, conflict resolution, and positive interprofessional working relationships (University of Toronto, 2008).
CC 8- Communicate the importance of teamwork in patient-centered care and population health programs and policies
Teams and Teamwork: Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable.
TT 1- Describe the process of team development and the roles and practices of effective teams
TT 2- Develop consensus on the ethical principles to guide all aspects of team work.
TT 3- Engage health and other professionals in shared patient-centered and population-focused problem-solving
TT 4- Integrate the knowledge and experience of health and other professions to inform health and care decisions, while respecting patient and community values and priorities/preferences for care
TT 5- Apply leadership practices that support collaborative practice and team effectiveness.
TT 6- Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members

TT 7- Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care
TT 8- Reflect on individual and team performance for individual, as well as team, performance improvement
TT 9- Use process improvement to increase effectiveness of interprofessional teamwork and team-based services, programs, and policies
TT 10- Use available evidence to inform effective teamwork and team-based practices.
TT 11- Perform effectively on teams and in different team roles in a variety of settings.

RESULTS

IBM® SPSS version 26 was used to analyze the survey data. Data was exported into excel and coded before uploaded into SPSS for analysis. A paired-samples t-test was conducted to compare the scores for participants using the pretest and posttest scores from the ISVS-21. Using the 7 point-Likert scale, participants rated themselves on the ISVS-21. There was a significant difference between the scores for the retrospective pretest (M=112.4, SD=17.9) and posttest (M=121.0, SD=15.2) on the ISVS-21; t(34)=-5.276, p=.000.

During the semi-structured interviews, three themes emerged during the data analysis process regarding preceptors' perceptions of IPE/IPCP in the clinical setting.

Positive Attitudes/Beliefs Toward IPE/IPCP

Positive attitudes/beliefs were heard through responses of participants in regard to IPE/ICP. Participants' responses aligned with IPEC core competencies that were presented in the online module including value/ethics, roles/responsibilities, and teams/teamwork. One participant stated:

> I feel it's [IPCP] very important, especially us as healthcare professionals at the end of the day, our job is to make sure we deliver the best healthcarehealthcare we can. And sometimes we might have to collaborate with other professionals that might see things from a different perspective than we do, and that helps tremendously…To me, I'm all for it [IPCP] and I try to show that experience when we can.

Three of the four IPEC core competencies can be seen in this statement. Another participant related their thoughts toward IPE/IPCP with the impact of students by saying:

> I think it's [IPCP] critical for students to gain experience and interacting with other professionals, so that when they are in the profession and actually have a job, they can have those interactions professionally, but also confidently.

A third participant shared their thoughts that athletic trainers are strong in IPE/IPCP and incorporating how important this has been with the pandemic in stating:

> My personal philosophy on that [IPCP] is that's one of our strongest aspects of athletic training. It's [IPCP] that opportunity to work with those professions, you know, physical therapy, massage therapy. Obviously, this past year has been a good exercise in that, and working with our public health people, our nursing team, and just kind of showing how we can really enhance their education by showing the versatility of our profession.

And another on the influence of the profession stated:

> Well, I think it's [IPCP] good, and it's something that will drive our profession forward in the future.

Limited Exposure & Structure to IPE in Didactic & Clinical Education

All five of the participants stated that they have not had any formal exposure or training in IPE/IPCP and some never heard the term IPE until this study/module. Even with no previous knowledge of IPE/IPCP prior to the module, after the module, participants have been able to reflect on what they have done and identify if it is IPE/IPCP by definition. One participant stated:

> I think not really having any formal background with it [IPE], I didn't really have any formal ideas about it previously, like, in the way that 'this is defined as this'. So, the module was helpful in being able to recognize that the things that I'm doing, or the things that we're doing, has a name, and we will be able to implement intentionally moving forward. I always try to, but now I can be much more intentional about including it [IPE] in as a preceptor.

In regard to formal training by athletic training programs that they work with, four of the five participants have never had any formal training or education around IPE/IPCP including with the programs they work with. One participant that had never heard of the term stated:

> When I saw the email for the research study, that was the first time I had really heard of interprofessional education. I was like 'oh that sounds really cool, it has a name.'

Another recognized that they did not have any formal training but expressed their thoughts about having access to a training on IPE/IPCP when asked about having any formal training from the athletic training program they work with.

> No, I don't think I have anything. It [IPCP training] would be good to have though

Perceived Barriers to IPE/IPCP

The final theme found during the semi-structured interview was perceived barriers of IPE/IPCP both for the participants and the athletic training students that they work with. One barrier that was pointed out by a participant was the egos that exist in the workplace:

> I think the biggest challenge is that there might be some individuals that have egos and they're not willing to share.

Another stated:

> The PT's (physical therapists) did not want to spend a lot of time talking or sharing information with me. Because I was only an ATC, it seemed like I was viewed as a second-class citizen in some of their eyes.

Along with egos, another barrier that was presented was the willingness of other healthcare professionals to teach students and allow them to be involved.

> So, if you have a doctor that really doesn't engage with the students, that's frustrating. It's understandable, but it's frustrating. Some are very open to the students asking questions and others are not as open.

> As a preceptor, not everybody is as understanding about our students being involved, and sometimes that takes a little bit of coaching from my end.

One participant took this barrier and described how the athletic training program they work with tries to overcome this barrier.

> I've heard that there were some physicians that didn't really seem to want students around. But I think (affiliated AT program) has done a really good job of finding places that want the students there. They hook them up with people that want to teach and further the profession. I think if you work with a doctor and you don't understand what they do, or don't want to know, that's not going to be a good relationship. If you're working with a doctor who says, "I see you as a valuable extension of me, with this team, at this school," then that makes a big difference.

DISCUSSION

The addition of interprofessional education and collaborative practice to the CAATE 2020 standards will require programs to implement IPE/IPCP within their program to remain compliant with the standards. The clinical education experience lends itself to allowing students to have IPE/IPCP experience. A vital part of this experience is the preceptor. This study found that a third of the participants stated they received some form of education or development in this area. Furthermore, some of the participants interviewed had never heard of the terms interprofessional education and collaboration. This is a call to action for program administrators to incorporate education and professional development opportunities about IPE/IPCP for their preceptors.

The results of this study are similar to a study by Schwieterman[14] which supports a short online module about IPE/IPCP can positively influence athletic training preceptors' beliefs, behaviors, and attitudes toward IPE/IPCP. An online professional development module allows preceptors to access the material at their convenience with the ability to start, stop, and replay as needed. One of the themes from the interviews was limited structure and exposure to IPE in the classroom and clinical setting. Of the preceptors surveyed, only a fourth (9, 26%) have had any IPE/IPCP education or development ranging from a seminar to a doctorate level course. Of those involved in the interview portion of the study, all five had no previous training or education in IPE/IPCP. A quick and easy way to engage preceptors that have limited time is to use an online module. Online, short, self-guided

programs have been found to be one of the most popular program types for clinical faculty.[15] The online module in this study can modified and utilized by programs to develop preceptors for athletic training as well as other healthcare professions.

Throughout the interviews, preceptors reported positive attitudes and beliefs toward IPE/IPCP. Many responses aligned with IPEC core competencies such as team/teamwork, roles/responsibilities, and value/ethics. Teaching, learning, and practicing in a team may help to develop team-oriented healthcare professionals

Finally, barriers to IPE/IPCP in each clinical setting should be addressed. Such barriers include egos, hierarchies, willingness to teach, and identifying IPE/IPCP clinical sites. Some preceptors felt that egos or a hierarchy in the workplace prevented IPE/IPCP from occurring. Athletic training program administrators should provide support for clinical sites to help breakdown these barriers with training and development in IPE/IPCP.

The pursuit of best practices establishes credibility as healthcare providers and the seriousness the athletic training profession has in pursuing quality care to patients. The importance of identifying and naming IPE experiences for athletic training students is crucial in establishing and reinforcing the incorporation of IPE into athletic training curricula and athletic training education programs. Continued pursuit of establishing IPCP as a cornerstone of athletic training education will elevate the athletic training profession amongst our healthcare colleagues, through the socialization of athletic training students as clinicians and future healthcare providers.

Recommendations Moving Forward

As IPE continues to be integrated in athletic training education, many athletic training programs rely on clinical education for IPE opportunities. As evidenced by the results of this study, not all programs are uniform in their delivery of clinical education due to the variability in preceptor competence of IPE. Athletic training programs could educate and develop preceptors to improve interprofessional education and collaborative practice experiences for athletic training students during clinical education.

Athletic training program administrators could review experiences that preceptors believe are interprofessional to ensure they are collaborative and align with the IPEC competencies. Results from this study suggest clinical preceptors are not familiar with IPE as a formal concept (educational model). However, study participants did recognize the importance of collaborating with other health professionals for the benefit of the patient and clinical student experience. In addition, seeking out intentional collaborative learning opportunities enhance interpersonal and clinical skills of students, and guides preceptors toward the IPEC competencies referenced in each interview

Athletic training programs could consider using an online module to introduce and educate athletic training preceptors in interprofessional education and collaborative practice. Due to the lack of uniformity in clinical education experiences, some clinical rotations may place more of an emphasis on IPE whereas other students may receive minimal or no IPE exposure. Therefore, one suggestion to increase IPE exposure is to purposefully educate preceptors about IPE and its educational model through online modules. Orienting an intuitive approach to learning that already exists in the athletic training profession may help to implement uniformity in clinical education.

Limitations and Future Research

Limitations to this study included the small sample size. There is not a preceptor database that can be used to send out study information. Due to this, the researchers relied on program administrators to pass along the study information to their preceptors and social media to reach a larger audience. Another possible contributing factor for the small sample size is that this study occurred during the spring semester of 2021, which was at the end of a trying year with all of the challenges with the COVID pandemic. Finally, understanding the nature of IPE/IPCP education and development experiences that preceptors had prior to this study. Participants filled the type of education or development in IPE/IPCP that they had but not the details. This education and development may have had an impact on their beliefs, behaviors, and attitudes toward IPE/IPCP.

CONCLUSION

In order to develop collaborative clinicians, educators need to provide IPE/IPCP experiences for their students throughout their athletic training program. Healthcare is a collaborative arena and athletic trainers are vital members of the healthcare team. The clinical education of athletic training students is the ideal learning environment to provide IPE/IPCP experiences. Providing education, development, and guidance for preceptors about IPE/IPCP can help to enhance these experiences by ensuring that preceptors identify and implement both true and purposeful collaborative learning experiences. Engaging preceptors can allow for IPE/IPCP experiences for students during their clinical education.

References

1. Mazerolle, S. M., Walker, S. E., & Thrasher, A. B. Exploring the Transition to Practice for the Newly Credentialed Athletic Trainer:A Programmatic View. *J Athl Train*.2015; 50(10), 1042-1053. doi:10.4085/1062-6050-50.9.02
2. NATA Executive Committee for Education. Future Directions in Athletic Training Education. 2012. Retrieved from Dallas, TX: https://www.nata.org/sites/default/files/ECE-Recommendations-June-2012.pdf
3. World Health Organization. (2010). Framework for action on interprofessional education & collaboration. Retrieved from https://www.who.int/hrh/resources/framework_action/en/
4. Commission on Accreditation of Athletic Training Education. Standards for Professional Masters Programs. 2020. Retrieved from Austin, TX: https://caate.net/wp-content/uploads/2019/08/2020-Standards-Final-7-15-2019.pdf
5. Breitbach, A., Sargeant, D. M., Gettemeier, P. R., Ruebling, I., Carlson, J., Eliot, K., . . . Gockel-Blessing, E. A. From buy-in to integration: melding an interprofessional initiative into academic programs in the health professions. *J Allied Health*.2013; 42(3), e67-73. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/24013253
6. Breitbach, A. The organic and strategic growth of interprofessionalism in athletic training. *J Interprof Care*.2016;30(2), 138-140. doi:10.3109/13561820.2016.1138676
7. Breitbach, A., & Richardson, R. Interprofessional Education and Practice in Athletic Training. *Athl Train Educ J*. 2015;10(2), 170-182. doi:10.4085/1002170
8. Welsch, L. A., Rutledge, C., & Hoch, J. M. The Modified Readiness for Interprofessional Learning Scale in Currently Practicing Athletic Trainers. *Athl Train Educ J*. 2017;12(1), 10-17. doi:10.4085/120110
9. Institute of Medicine. Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes. Washington DC: The National Academies Press; 2015.DOI: https://doi.org/10.17226/21726
10. Rizzo, C.S., Breitbach, A.P., & Richardson, R. Athletic trainers have a place in interprofessional education and practice. *J of Interprof Care.* 2014. *29*(3), 256–257. https://doi.org/10.3109/13561820.2014.942778
11. Bowman, T. G., Mazerolle, S. M., & Barrett, J. L. Professional Master's Athletic Training Programs use Clinical Education to Facilitate Transition to Practice. *Athl Train Educ J*. 2017;12(2), 146-151. doi:10.4085/1202146
12. King, G., Orchard, C., Khalili, H., & Avery, L. Refinement of the Interprofessional Socialization and Valuing Scale (ISVS-21) and Development of 9-Item Equivalent Versions. *J Contin Educ Health Prof*. 2016;36(3), 171-177. doi:10.1097/ceh.0000000000000082
13. Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a Qualitative Description Approach in Health Care Research. *Global qualitative nursing research*.2017; 4, 2333393617742282-2333393617742282. doi:10.1177/2333393617742282
14. Schwieterman, J., Utley, J., Breitbach, A., & Crocker, H. Clinical preceptors' self-assessed beliefs, behaviors, and attitudes for interprofessional education after an online professional development module. *HIPE*. 2012; 4(2). doi:10.7710/2641-1148.2163
15. Ratka, A., Zorek, J. A., & Meyer, S. M. Overview of Faculty Development Programs for Interprofessional Education. *American journal of pharmaceutical education*.2017; 81(5), 96-96. doi:10.5688/ajpe81596