

INTERPROFESSIONAL JOURNAL EDUCATION

A Modular Approach to Interprofessional Concussion Education and Assessment for Athletic Training and Nursing Students

Elizabeth A. Parke, PhD, LAT, ATC*; Sarah Obermeyer, PhD, CNM, WHNP-C, IBCLC[†]; Sean M. Rogers, DAT, LAT, ATC[‡]

*Master of Athletic Training Program, University of Arkansas, Fayetteville; †Frontier Nursing University, Versailles, KY; Department of Athletic Training, Drake University, Des Moines, IA

Context: Due to the complexity of concussion evaluation and management and the growing demand for interprofessional collaborative practice in health care, the need for interprofessional education (IPE) among professional health care programs has become increasingly important.

Objective: This IPE technique provides athletic training and nursing students with an opportunity to apply knowledge of professional roles and uses collective clinical reasoning to navigate a multifaceted case scenario with a patient who sustained a concussion.

Background: With the emphasis of IPE in professional health care programs, both athletic training and nursing programs accrediting bodies have adopted standards that require the implementation of IPE within the curriculum.

Description of Techniques: This IPE event uses a modular and scaffolding teaching approach to gradually introduce new developments into the patient case in a sequential manner to increase fidelity.

Advantage(s): By using this approach, students will have the opportunity to meet the objectives for each module before moving on to the next. Additionally, students will develop professional relationships over time within the collaboration of professional groups.

Conclusion(s): Use of this IPE technique affords athletic training and nursing students the opportunity to develop the professional skills required to engage in interprofessional collaborative practice and improve patient outcomes.

Key Words: Case scenario, modular learning, scaffolding technique, interprofessional education

Dr Elizabeth Parke is currently a Teaching Associate Professor and serves as the Clinical Education Coordinator for the Athletic Training Program at the University of Arkansas. Address correspondence to Elizabeth A. Parke, PhD, LAT, ATC, Master of Athletic Training Program, University of Arkansas, 155 Stadium Dr HPER 308T, Fayetteville, AR 72701. eaparke@uark.edu.

Full Citation:

Parke EA, Obermeyer S, Rogers SM. A modular approach to interprofessional concussion education and assessment for athletic training and nursing students. Athl Train Educ J. 2023;18(4):290-296.

A Modular Approach to Interprofessional Concussion Education and Assessment for Athletic Training and Nursing Students

Elizabeth A. Parke, PhD, LAT, ATC; Sarah Obermeyer, PhD, CNM, WHNP-C, IBCLC; Sean M. Rogers, DAT, LAT, ATC

KEY POINTS

- Using a modular and scaffolding teaching approach in interprofessional education increased the fidelity of the patient case used for this activity.
- Teaching concussion assessment and management using interprofessional education engages learners in cross-profession engagement and encourages essential communication.
- Developing effective interprofessional education activities for nursing and athletic training students requires significant planning, time investment, and mutual understanding of professional roles and responsibilities.

INTRODUCTION

A historical precedent emphasizing the global importance of interprofessional education (IPE) in healthcare programs can be traced back to the first Institute of Medicine conference in 1972.¹ That conference brought together leaders from the fields of nursing, dentistry, medicine, pharmacy, and allied health to lay the framework for the Interprofessional Education Collaborative (IPEC).¹

The IPEC defines IPE as "the process in which students from 2 or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes."^{2–5} The IPEC furthermore identifies 4 core competencies that IPE techniques should incorporate to provide effective learning experiences. These competencies include a focus on (1) values and ethics, (2) the roles and responsibilities of interprofessional team members, (3) interprofessional communication, and (4) teamwork.⁴

In alignment with the IPEC core competencies, the primary intention of any IPE technique should be to prepare students to engage in interprofessional collaborative practice (IPCP) postcredentialing. This is because interprofessional care (IPC) teams are widely regarded as an effective way to enhance the delivery of patient care while simultaneously improving patient outcomes.^{2,5–9} Current literature shows that, when implemented appropriately, IPC teams increase patient satisfaction and education, improve medication adherence, and promote self-management skills while simultaneously decreasing course of care complications and hospital readmission rates.^{2,6,9,10} Health care providers also report benefits of these IPC teams including an increase in job satisfaction and perceived care quality and decrease in clinical errors and feelings of burnout.⁶

With such significant benefits, the prominent practice of adopting an interprofessional approach to patient care will continue well into the future of health care. As such, to best prepare students in professional programs for clinical practice and careers in health care, educators should focus on building high-quality and purposeful scenarios that encourage the practice of shared clinical decision making.¹¹ Emphasizing the importance of IPE in athletic training and nursing professional health care programs is not a novel technique^{12,13}; in fact, many accrediting bodies have adopted standards that encourage or require the implementation of IPE. Relevant to the IPE technique outlined in this manuscript, both the Commission on the Accreditation of Athletic Training Education and Commission on Collegiate Nursing Education require IPE to be implemented in the curriculum through Standard 8¹⁴ and Standard III-H,¹⁵ respectively.

Interprofessional learning environments require a paradigm shift that allows students to embody their own professional roles while also asking them to expand their roles as members of a collaborative team. Engagement in IPE experiences enhances student receptiveness to diverse perspectives¹¹ and to working as a team to engage in professional ethics, moral reasoning, and difficult conversations.¹⁶ The process of IPE experiences addresses hierarchical power structures, conflict, and repair, all of which affect teamwork and patient outcomes.^{2,8,9,17–19}

One of the emerging areas in which IPC teams have a unique opportunity to improve patient outcomes is in concussion evaluation and management care.^{20–22} The level of care and collaboration required for effective postconcussion care may be extensive, and as such, those on the IPC team benefit from an understanding of everyone's roles during the continuum of care.

To prepare both professional athletic training students and graduate nursing students to engage in effective IPCP postcredentialing while also improving knowledge relevant to concussion evaluation and management, a modular case scenario was developed. The learning objectives of this case scenario were as follows:

- Be aware of self and others in a community of practice to foster effective communication and professional development.
- Apply knowledge of professional roles, effective teamwork, and health equity when working with patients suffering from a concussion.
- Engage with the interprofessional collaborative team in respectful, civil discourse.
- Use collaborative problem solving and clinical reasoning to improve patient outcomes related to concussion recognition and management.

DESCRIPTION OF TECHNIQUES

This educational technique is focused on the role of the athletic trainer (AT) and registered nurse (RN) in the evaluation and management of concussions. It is advised that It is advised that students enrolled in these professional programs have foundational knowledge of concussion etiology, pathophysiology, diagnosis, and management in addition to a strong understanding of their professional role within the health care system before engaging with this educational technique.

When athletic training and RN educators are preparing for this educational technique, we recommend developing a concise

timeline that outlines the implementation of each module. Allowing sufficient time in between modules provides the opportunity for students to complete preparation work to better engage with the module and adopt an active learning mindset.^{23–27} We furthermore recommend that athletic training and RN educators are also prepared to effectively lead classroom discussions, including the possibility of needing to navigate questions regarding role conflict and friction within an IPC team.

When planning for the delivery of these modules, educators should strive to create pairs of athletic training and RN students at a 1:1 ratio and keep these pairs together throughout the entirety of the technique when possible. The modules included in this educational technique may be delivered in person or virtually based on educator preferences, resources, availability of actors, and geographical location. The efficacy of the use of virtual mediums to facilitate IPE is supported in the literature²⁸ and mirrors current trends in clinical practice as clinicians engage with and adopt telehealth and telemedicine in greater numbers. Should educators wish to provide a numerical grade for student products rather than for participation only, grading rubrics should be developed to assist in student assessments.

Module 1: Professional Roles in Concussion Management

Overview. Module 1 objectives include (1) discuss in interprofessional pairs the role and responsibilities of ATs and RNs related to concussion care, (2) provide exposure to the assessment tools used for the evaluation of concussions, and (3) perform concussion assessments for a peer of the opposite profession.

Before the first module, students should be assigned reading related to basic concussion knowledge and management. Content videos may be developed related to concussion pathology and concussion morbidities and diagnostics for students to watch before Module 1. Additionally, premodule assignments should include a reading that outlines the services they are qualified to provide as health care providers within their professional roles. Lastly, students should familiarize themselves with their own professional Concussion Screening Tool (ie, Sport Concussion Assessment Tool—5th edition [SCAT5]²⁹ for athletic training students and expanded neurological exam³⁰ for RN students).

Delivery. Delivery of Module 1 activities will occur over a 2-hour session. During this event, students should first meet in their assigned pairs to discuss each profession's roles in concussion philosophy of care and desired outcomes as well as the differences in the scope of practice among professions (Module 1, Objective 1). Upon completion of this paired discussion, educators will lead a guided discussion on the similarities and distinctions of the 2 professional roles.

Students should then be introduced to the patient and be presented with the mechanism of injury by which the patient sustained his or her concussion. The patient created for this IPE activity was a 17-year-old high school senior soccer player who suffered a concussion from a head-to-head collision that occurred with an opposing player during a recent game. After this introduction and injury mechanism, students should be sent back to their professional pairs to have the athletic training students perform a SCAT5²⁹ assessment on the nursing students (Module 1, Objectives 2 and 3). Nursing students will have the opportunity to experience the breadth and depth of the concussion assessment performed by the AT, which they will not have previously been exposed to in their clinical rotations since these rotations occur primarily within the hospital setting where no AT is employed (Module 1, Objectives 2 and 3).

Once back from the pair activity, the scenario will evolve as students are updated on the patient's condition. The patient's demeanor has changed, and he or she is now presenting with a very despondent disposition with complaints of vomiting episodes. The students will also be introduced to the patient's parent who is very concerned about these worsening symptoms in his or her child and is taking the patient to the emergency department (ED) for further assessment. The students should return to the same professional pairing for the nursing students to complete their expanded neurological exam,³⁰ which will allow the athletic training students to experience the acute postconcussive assessment offered within the ED (Module 1, Objective 2). At the conclusion of this activity, both students will have experienced the other professional peer's concussion assessment.

Debrief. After students return to the group, an educator-led debrief should focus on provider roles and profession-specific assessment techniques. Prompt the students with the following questions:

- Compare and contrast the strategies and assessments that ATs and RNs use to evaluate concussions.
- Discuss the subjective and objective data collected by both evaluation techniques and evaluate the strengths and weaknesses of both assessment techniques.
- How has this activity enhanced your awareness of the professional roles of the AT and RN?

Upon completion of Module 1 activities, students should be tasked to watch professional concussion assessment exemplar videos of the SCAT5 and the expanded neurological exam created by the educators and complete a brief quiz covering the information presented throughout the module. Refer to Figure 1 for a more detailed outline of Module 1 activities.

Module 2: Interprofessional Communication

Overview. Module 2 objectives include (1) apply knowledge in an interprofessional team meeting, (2) create a plan of care for the patient within the team meeting, and (3) communicate a written plan of care to stakeholders addressing their individual concerns.

The second event will also be delivered over a 2-hour session. We recommend this session be conducted 1 week after Module 1, and it is outlined in Figure 2. Before the session, ensure the students have foundational knowledge in concussion return-to-learn (RTL)/return-to-activity (RTA) guidelines as well as patient privacy and IPE.³¹ Before assigning this module, educators should develop content focusing on the application of the RTL/RTA concussion guidelines in alignment with state governing bodies or athletics associations. Additionally, educators should prepare a patient privacy video addressing the Family

Figure 1. Outline of Module 1. Abbreviations: AT, athletic trainer; ED, emergency department; RN, registered nurse; SCAT5, Sport Concussion Assessment Tool 5th edition.



Educational Rights and Privacy Act for students to watch before the module.³²

Delivery. Module 2 should begin with an overview of interprofessional communication.¹³ After this content, students will

be asked to go to their preassigned pairs and identify their 3 professional goals individually and work together to create 3 collaborative priorities of patient care (Module 2, Objective 1). These goals should be submitted to educators for nongraded review and feedback.





In the second part of this session, 3 stakeholders should be introduced to the students. These individuals will each have additional concerns about patient care, and students will need to work in their collaborative pairs to respond to the stakeholders through written communication. Stakeholders for this case were the patient's parent, coach, and teacher. These stakeholders in the scenario are included to increase the scenario fidelity and to share their individual concerns related to the patient's plan of care.

- Parent: The parent expressed her concern for her child (the patient), as he or she is showing signs of depression, has been emotionally detached since he or she suffered the concussion, and still is not feeling well.
- Coach: The coach was seeking an update on the patient's playing status as the team has its biggest game of the season coming up next week, and the student was one of the best players on the team.
- Teacher: The teacher was worried the patient is falling farther behind in their Advanced Placement class and that it was necessary for the patient to get an A on the exam next week. The teacher would like the patient to attend the study sessions occurring every day before school so that the patient can get the grade that he or she needs to get accepted into his or her dream school.

After introduction of the stakeholders' concerns, students should move to their collaborative groups to develop e-mail responses to each of the stakeholders, addressing the concern raised by each individual while adhering to patient privacy (Module 2, Objectives 2 and 3).

Debrief. This module should conclude with an educatorled discussion about the shared student experience communicating and addressing each stakeholder's unique concerns using the following prompts:

- Reflect on your discussions with each of the stakeholders. Which discussion did you find the most challenging? Explain your reasoning.
- When engaging with the stakeholders, how did you ensure you were protecting patient privacy while also delivering the required information to facilitate RTL/RTA?
- How did your response integrate the RTL/RTA guidelines?
- What resources would you provide to address each stakeholder's concern?

ADVANTAGES

Athletic training and nursing educators are encouraged to collaborate and offer this event as a part of their curriculum to successfully meet the accreditation standards related to IPE for both professions. Using the scaffolding approach to the information through each module creates an opportunity for students to integrate new information related to the case scenario and develop strategic questions for the next session, allowing for the development of clinical reasoning. It is important for educators to use scaffolding alongside concussion materials in the curriculum to optimize independent learning.³³ We highly recommend that athletic training and nursing educators choosing to implement this teaching be cognizant to pair professional students at similar time points of their educational programs to maximize student learning. This IPE technique could be applied to further accreditation standards including heat illness, emergency action plan, and cervical spine management. These teaching techniques successfully allowed for the learning outcomes developed to be met by the students.

When considering adopting this IPE technique within the curriculum, it would be beneficial to integrate standardized patients into the case scenario to explore situations in which a patient experiences postconcussive syndrome or medical disqualification from sport. Additionally, to allow students to be exposed to and experience the value of telehealth related to concussion care, the IPE may be delivered virtually. Researchers have supported that delivery of an online IPE event still provides students with collaborative learning opportunities.^{28,34–36}

Should educators wish to track data for research and publication purposes, we recommend the use of the SPICE-R2 survey.³⁷ The SPICE-R2 is composed of 10 items distributed across 3 factors (ie, subscales): interprofessional teamwork and team-based practice (4 items), roles and responsibilities for collaborative practice (3 items), and patient outcomes from collaborative practice (3 items), as shown in the Table 1. The instrument uses a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), has been previously validated, and is reliable for use.³⁷ Adoption of the SPICE-R2 should be considered if it aligns with the program or IPE activity student learning objectives (SLOs) and would allow for the evaluation of SLOs and the overall effectiveness of the technique.

DISADVANTAGES

Educators looking to implement effective IPE activities within their curriculum to promote IPCP in professional practice must be aware of some of the document barriers and challenges that exist. Effective integration of IPE within health care curricula often requires a bilateral willingness between professional program faculty to structure their curricula in such a way that encourages opportunities for IPE to occur over time.³⁸ Also, a significant time investment is required to plan IPE activities that are responsive to the educational needs and professional background of the intended audience.³⁹

When including IPE within the curriculum, educators must ensure students are provided with a foundational understanding of the roles and responsibilities of each team member to foster mutual respect, promote knowledge exchange, and eliminate role conflict.⁴⁰ Educators should also emulate these behaviors when collaborating with each other to provide a positive example for students to reduce instances of professional stereotyping, a student- and provider-centric barrier that occurs when individuals are socialized to believe negative characteristics, attributes, and behaviors of other health care professions.⁴¹

CONCLUSIONS

While previous IPE techniques for athletic training and RN students have addressed the gap of professional communication and understanding of professional roles, ^{12,22,42–44} this technique builds on this foundation and adds interprofessional assessment experience using concussion assessment. If conducted virtually, this technique can mirror the current health care climate in which telehealth is an ongoing development, and students will gain more experience and appreciation for the benefits and limitations of telehealth.⁴⁵ Additionally, the current technique will

Table. Students Perceptions of Interprofessional Clinical Education Revised, Version 2 Instrument

		Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1 [T]	Working with students from different disciplines enhances my education.	1	2	3	4	5
2 [R]	My role within an interprofessional concussion care team is clearly defined.	1	2	3	4	5
3 [O]	Patient or client satisfaction is improved when care is delivered by an interprofessional concussion care team.	1	2	3	4	5
4 [T]	Participating in educational experiences with students from different disciplines enhances my ability to work on an interprofessional team.	1	2	3	4	5
5 [R]	I have an understanding of the courses taken by and training requirements of other health professionals.	1	2	3	4	5
6 [O]	Health care costs are reduced when patients or clients are treated by an interprofessional team.	1	2	3	4	5
7 [T]	Health professional students from different disciplines should be educated to establish collaborative relationships with one another.	1	2	3	4	5
8 [R]	I understand the roles of other health professionals within an interprofessional team.	1	2	3	4	5
9 [O]	Patient- or client-centeredness increases when care is delivered by an interprofessional team.	1	2	3	4	5
10 [T]	During their education, health professional students should be involved in teamwork with students from different disciplines to understand their respective roles.	1	2	3	4	5

Abbreviations: [O], Patient Outcomes from Collaborative Practice; [R], Roles and Responsibilities for Collaborative Practice; [T], Interprofessional Teamwork and Team-Based Practice.

allow the learners opportunity for integration of content due to the scaffolding.³³ Traditionally, concussion management is a continuum of care that requires an ongoing assessment of patient care and teaching; this can be enhanced by the use of scaffolded content and an unfolding patient case.³³

As the need for IPCP grows, professional programs must find ways to integrate IPE learning opportunities into their curriculum. Given the significance and prevalence of concussions within the United States in terms of acute care and long-term complications, it is extremely valuable for ATs and RNs to be able to collaborate to navigate patient cases. This IPE technique can specifically prepare athletic training and RN students to effectively communicate and provide interprofessional postconcussive care to patients, even when not working in the same setting, with the goal of improving patient outcomes.

REFERENCES

- Manusov E, Ronnau J, Vela L, Lydia A, Galke C. Engagement and co-production: building an inter-professional integrated medical education and clinical practice. *Int J Integr Care*. 2015;15(5). doi:10. 5334/ijic.2105
- Buring SM, Bhushan A, Broeseker A, et al. Interprofessional education: definitions, student competencies, and guidelines for implementation. *Am J Pharm Educ.* 2009;73(4):59. doi:10.5688/ aj730459
- 3. Barr H, Koppel I, Reeves S, Hammick M, Freeth DS. *Effective Interprofessional Education: Argument, Assumption and Evidence* (*Promoting Partnership for Health*). John Wiley & Sons; 2005.

- 4. Interprofessional Education Collaborative (IPEC). *Core Competencies for Interprofessional Collaborative Practice: 2016 Update.* Interprofessional Education Collaborative; 2016.
- Reeves S, Fletcher S, Barr H, et al. A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. *Med Teach.* 2016;38(7):656–668. doi:10.3109/0142159X.2016.1173663
- Wei H, Horns P, Sears SF, Huang K, Smith CM, Wei TL. A systematic meta-review of systematic reviews about interprofessional collaboration: facilitators, barriers, and outcomes. *J Interprof Care*. 2022;36(5):735–749. doi:10.1080/13561820.2021.1973975
- Hudson H, Shirey D, Soltwisch M, Peterson M. Interprofessional education between athletic training and advanced practice nursing programs. *Consultant*. 2021;61(12):8–15. doi:10.25270/con.2021.05. 00009
- Learning together to work together for health: report of a WHO Study Group on Multiprofessional Education of Health Personnel: the Team Approach [meeting held in Geneva from 12 to 16 October 1987]. World Health Organization. Published 1988. Accessed December 2020. https://apps.who.int/iris/handle/10665/37411
- Promoting Interprofessional Education. American Public Health Association. Published October 28, 2008. Accessed January 2020. https://www.apha.org/policies-and-advocacy/public-healthpolicy-statements/policy-database/2014/07/23/09/20/promotinginterprofessional-education
- Greiner AC, Knebel E, eds; Institute of Medicine Committee on the Health Professions Education Summit. *Health Professions of Education: A Bridge to Quality*. National Academies Press; 2003.
- Loes CN, Culver KC, Trolian TL. How collaborative learning enhances students' openness to diversity. *J High Educ*. 2018;89(6): 935–960. doi:10.1080/00221546.2018.1442638

- Tivener KA, Gloe DS. Designing simulations for athletic training students through interprofessional teaching collaboration. *Athl Train Educ J.* 2015;10(3):249–255. doi:10.4085/1003249
- Nichols A, Wiley S, Morrell BL, et al. Interprofessional healthcare students' perceptions of a simulation-based learning experience. J Allied Health. 2019;48(3):159–166.
- 14. 2020 standards for accreditation of professional athletic training programs, master's degree programs. Commission on Accreditation of Athletic Training Education. Updated January 9, 2018. Accessed January 2021. https://caate.net/wp-content/uploads/2018/09/2020-Standards-for-Professional-Programs-copyedited-clean.pdf
- Standards for accreditation of baccalaureate and graduate nursing programs. Commission on Collegiate Nursing Education. Updated 2018. Accessed January 2021. https://www.aacnnursing. org/Portals/42/CCNE/PDF/Standards-Final-2018.pdf
- Engel J, Prentice D. The ethics of interprofessional collaboration. Nurs Ethics. 2013;20(4):426–435. doi:10.1177/0969733012468466
- Sanchez ES, Tran-Reina M, Ackerman-Barger K, Phung K, Molla M, Ton H. Implicit biases, interprofessional communication, and power dynamics. Agency for Healthcare Research and Quality, Patient Safety Network. Accessed January 8, 2021. https://psnet .ahrq.gov/web-mm/implicit-biases-interprofessional-communicationand-power-dynamics
- Baker L, Egan-Lee E, Martimianakis MAT, Reeves S. Relationships of power: implications for interprofessional education. *J Interprof Care*. 2011;25(2):98–104. doi:10.3109/13561820.2010.505350
- Sukhera J, Watling C. A framework for integrating implicit bias recognition into health professions education. *Acad Med.* 2018;93(1):35–40. doi:10.1097/ACM.00000000001819
- D'Angelo L. Interprofessional education for concussion assessment. *eHearsay*. 2019;9(1):35–41.
- Pirani S, Freemyer B, Furuta S, et al. Efficacy of interprofessional sport concussion simulation training for health care students and teacher candidates. *J Interprof Educ Pract*. 2022;28:100516. doi:10. 1016/j.xjep.2022.100516
- Welsch LA. A Web-Based Interprofessional Education Program for School Nurses and Athletic Trainers: A Pilot Study. Old Dominion University; 2017. doi:10.25777/ej37-8j04
- Shafi R, Quadri KHM, Ahmed W, Mahmud SN, Iqbal M. Experience with a theme-based integrated renal module for a second-year MBBS class. *Adv Physiol Educ.* 2010;34(1):15–19. doi:10.1152/advan.00069.2009
- Vyas R, Jacob M, Faith M, et al. An effective integrated learning programme in the first year of the medical course. *Natl Med J India*. 2008;21(1):21–26.
- Gahutu JB. Physiology teaching and learning experience in a new modular curriculum at the National University of Rwanda. *Adv Physiol Educ.* 2010;34(1):11–14. doi:10.1152/advan.00093.2009
- Karthikeyan K, Kumar A, Bupathy A, Rajagovindan D. Integrated modular teaching in undergraduate medicine. *Natl Med J India*. 2014;27(2):90–94.
- ur Rahman I, Mansoor S, Meraj L, Ahmad M, Dodhy MA, Sattar H. Faculty Satisfication Regarding Modular Teaching. *J Rawalpindi Med Coll*. 2022;26(1):133–140. doi:10.37939/jrmc.v26i1.1880
- Khalili H. Online interprofessional education during and post the COVID-19 pandemic: a commentary. J Interprof Care. 2020;34(5):687–690. doi:10.1080/13561820.2020.1792424

- The Sport Concussion Assessment Tool—5th edition. Br J Sports Med. 2017;51(11):851–858. doi:10.1136/bjsports-2017-097506SCAT5
- 30. Glasgow Coma Scale. Accessed January 2021. www.glasgowcom ascale.org
- Kreps GL. Communication and effective interprofessional health care teams. Int Arch Nurs Health Care. 2016;2(3):51. doi:10.23937/ 2469-5823/1510051
- 32. Family Educational Rights and Privacy Act (FERPA). US Department of Education. Accessed January 2021. https://www2. ed.gov/policy/gen/guid/fpco/ferpa/index.html
- 33. Dickson SV, Chard DJ, Simmons DC. An integrated reading/writing curriculum: a focus on scaffolding. *LD Forum*. 1993;18:12–16.
- Practice analysis, 7th edition. Board of Certification for the Athletic Trainer. Accessed December 2020. https://bocatc.org/system/ document_versions/versions/24/original/boc-pa7-content-outline-20170612.pdf?1497279231
- 35. Evans S, Ward C, Shaw N, Walker A, Knight T, Sutherland-Smith W. Interprofessional education and practice guide No. 10: developing, supporting and sustaining a team of facilitators in online interprofessional education. *J Interprof Care*. 2020;34(1):4–10. doi:10.1080/13561820.2019.1632817
- 36. Gilbert PK, Dabbagh N. How to structure online discussions for meaningful discourse: a case study. Br J Educ Technol. 2005;36(1):5–18. doi:10.1111/j.1467-8535.2005.00434.x
- Dominguez DG, Fike DS, MacLaughlin EJ, Zorek JA. A comparison of the validity of two instruments assessing health professional student perceptions of interprofessional education and practice. *J Interprof Care*. 2015;29(2):144–149. doi:10.3109/ 13561820.2014.947360
- Grace S. Models of interprofessional education for healthcare students: a scoping review. J Interprof Care. 2021;35(5):771–783. doi:10.1080/13561820.2020.1767045
- Reid AM, Fielden SA, Holt J, MacLean J, Quinton ND. Learning from interprofessional education: a cautionary tale. *Nurse Educ Today*. 2018;69:128–133. doi:10.1016/j.nedt.2018.07.004
- Homeyer S, Hoffmann W, Hingst P, Oppermann RF, Dreier-Wolfgramm A. Effects of interprofessional education for medical and nursing students: enablers, barriers and expectations for optimizing future interprofessional collaboration—a qualitative study. *BMC Nurs*. 2018;17:13. doi:10.1186/s12912-018-0279-x
- Conroy C. Stereotyping as a major barrier to achievement of interprofessional education competencies: a narrative literature review. *Internet J Allied Health Sci Pract.* 2019;17(3):8. doi:10. 46743/1540-580X/2019.1846
- 42. Morrell BLM, Nichols AM, Voll CA, et al. Care across campus: athletic training, nursing, and occupational therapy student experiences in an interprofessional simulation. *Athl Train Educ J.* 2018;13(4):332–339. doi:10.4085/1304332
- Pardue KT. Not left to chance: introducing an undergraduate interprofessional education curriculum. J Interprof Care. 2013; 27(1):98–100. doi:10.3109/13561820.2012.721815
- Rains CA, Robinson B. School nurses and athletic trainers team up on concussion management. NASN Sch Nurse. 2010;25(5):234–238. doi:10.1177/1942602X10376672
- Papanagnou D, Sicks S, Hollander JE. Training the next generation of care providers: focus on telehealth. *Healthc Transform.* 2015;1(1):52–63. doi:10.1089/heat.2015.29001-psh