Interprofessional education and practice guide: Developing interprofessional community-based clinical experiences

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Abstract: Substantial interprofessional learning opportunities engaging with complex patients must be available to health professional students to prepare them with the necessary knowledge and experiences to function as competent care providers. In community learning experiences, interprofessional teams can target vulnerable populations who face ongoing health disparities to maximize health impact and reduce over utilization of resources such as emergency room visits. Patients from vulnerable populations often present in community settings with multiple comorbidities, which benefit from a team approach focusing on prevention and enhancing the quality of life. The planning team at Florida Atlantic University’s Christine E. Lynn College of Nursing and the Charles E. Schmidt College of Medicine implemented a real-world community-based clinical experience, incorporating learners from other colleges and universities, professionals from community health centers and patients from homeless shelters to facilitate interprofessional learning over a three-year period. These practical clinical experiences reinforced the

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PUBLIC INTEREST STATEMENT

Faculty recognized that students need to have community clinical practice experiences caring for patients with multiple chronic healthcare needs to learn to deliver efficient, effective, quality care. At their Nurse Managed Clinic, and community partner sites, many vulnerable patients were homeless and/or recently released from incarceration. Faculty, healthcare providers and staff were taught tools and techniques to improve their communication and teamwork. Medical, nursing, social work, pharmacy and public health students were then brought together in these settings to learn how to communicate with and work with the teams to respond to complex healthcare needs. The goal was to increase this population’s access to diabetes management and mental health services through collaborative practice and education. This paper provides a guide and a summary of lessons learned for educators who would like to provide similar community clinical experiences for students to better prepare them for future practice.
communication and leadership skills that are part of the Team Strategies and Tools to Enhance Performance and Patient Safety or TeamSTEPPS™ evidence-based curriculum, developed by the Agency for Healthcare Research and Quality. This guide outlines the steps and lessons learned, through incorporating team-based practice experiences for nursing, medicine, pharmacy, and social work students caring for vulnerable populations within community settings.

Subjects: Interpersonal Communication; Organizational Communication; Primary Care Nursing; Community and Public Health Nursing; Population Health; Community Health; Health Communication

Keywords: Community practice; interprofessional education; interprofessional practice; vulnerable populations; health disparities

1. Introduction
Communication is a critical domain within the Core Competencies for Interprofessional Collaborative Practice (2011) that provide a basis for interprofessional (IP) education and practice. The ability to communicate effectively among members of the healthcare team establishes a readiness to work together in collaborative practice, ultimately improving the integration of clinical care. An update broadened the competencies to also address community practice, and the Triple Aim Initiatives of improving the patient experience, improving population health, and reducing healthcare costs (Interprofessional Education Collaborative, 2016). Interprofessional communication supports a team approach to promoting health maintenance and preventing disease within the Triple Aim framework (IPEC, 2016). Recent recommendations suggest expanding the Triple Aim to the Quadruple Aim, to include provider and staff satisfaction within the work environment (Bodenheimer & Sinsky, 2014). In combination with the core competencies for valuing roles and responsibilities and promoting teamwork, IP collaboration suggests communication as a central tenet that contributes to healthy work environments. Effective communication strategies are necessary to achieve the goals of providing better patient experiences and healthier populations, at less cost, within satisfying work environments.

The complex needs of community patients demand that healthcare providers utilize effective communication strategies while working with IP teams to address chronic conditions. Healthcare providers who work in silos are often unprepared to manage the multifaceted physical, mental and social comorbid conditions of vulnerable populations in community settings, which call for a collaborative approach (Frenk et al., 2010). Fragmented communication is exacerbated between providers when providing care for the uninsured, underserved, homeless, or those who have been recently released from jail or prison due to inconsistencies in access to care (Patel, Boutwell, Brockmann, & Rich, 2014). The communication and leadership strategies outlined in the Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS™) provide a framework to overcome these challenges. This evidence-based framework offers a systematic approach developed by the Department of Defense (DoD) and the Agency for Healthcare Research and Quality (AHRQ) to integrate teamwork into practice. The goal of the program is to improve the quality, safety, and the efficiency of healthcare through improved teamwork utilizing specific tools and strategies to improve team performance in healthcare (King et al., 2008). Formal measurement of changes in attitudes and preparedness for IPCP were collected among learners for a quantitative measure of the impact of the experience, as well as qualitative feedback and suggestions for future improvements.

To equip future healthcare providers with the knowledge and clinical experience to deliver high-quality care to these at-risk groups, there must be opportunities for health professional students to engage in substantial IP learning opportunities. Community learning experiences should mirror the level of complexity they will encounter upon graduation. Students should be immersed in and
demonstrate the necessary competencies for working with IP teams caring for vulnerable populations who face ongoing health disparities, as they are role-modeled by trained faculty (Robson & Kitchen, 2007). This guide will describe the process of incorporating team-based practice experiences for nursing, medicine, pharmacy, and social work students caring for vulnerable populations within community settings as well as the challenges and lessons learned.

2. Overview of interprofessional collaborative practice (IPCP) activity
The purpose of this IPCP activity is to enable learners to improve their knowledge and skills in IP collaboration, practice and community engagement. This project brings community partners, health professionals, and students together to learn, co-create, implement, lead, and evaluate the integration of IP competencies. Through participation in community-based IP care of vulnerable populations, overall health outcomes will improve by the achievement of the following goals:

1. Increase the number of community partners, providers and healthcare professional students proficient in Interprofessional Collaborative Practice (IPCP).
2. Utilize the TeamSTEPPS communication tools and techniques to facilitate IP collaboration to improve patient care.
3. Apply IP strategies in practice to assess, manage and consult in the care of complex persons with multiple social, cultural and health co-morbidities in a community setting.

The Florida Atlantic University College of Nursing (FAU CON) and College of Medicine (FAU COM) planning team engaged the School of Social Work to collaborate on curriculum development and identify an intentional time for this experience. Palm Beach Atlantic University College of Pharmacy students were invited to participate in this community IP clinical learning experience. While learning in the community settings, professional students from each discipline were encouraged to take the lead in responding to patient care issues as appropriate. The FAU CON Community Health Center (CHC) took leadership in providing workshops focusing on TeamSTEPPS™, specifically evidence-based communication strategies and team-building, as well as the Core Competencies for IPCP for all community partners and healthcare providers. Health professional students received the same education through virtual modules. This education was reinforced through clinical experiences with IP providers and students at the sites. These activities fostered respect, trust, and cohesiveness within teams, and established a shared mental model for IP collaboration to solve complex issues and improve patient outcomes (U.S. Dept. Health & Human Services, 2017; World Health Organization, 2010).

Teams of students from varying professions were assigned to spend a minimum of three half days in the community practice sites. Nursing, social work, pharmacy, behavioral health, and public health students’ rotations allocated more than the minimum required time for this experience. Medical students’ clinical rotations were limited to the minimum requirement. Each students’ experiences were tailored to limit the disruption to team development while learning core IPCP competencies. Students engaged in team activities including completion of rounds, facilitating communication, developing plans of care and providing educational interventions. Students also joined the care teams for their scheduled conferences and outreach activities. Successful completion of all program components resulted in a certificate of Advanced IP TeamSTEPPS Training in the Primary Care Setting for students.

3. Approach to implementing IPCP activity
Students and core staff of the FAU CON CHC, homeless shelters and community partner organizations participated in clinical experiences emphasizing a team-based model of care and created partnerships for learning, caring and improving patient outcomes. Students were also asked to play an active role in revising and improving this IP team practice experience by providing feedback through multiple media, such as pre and post-training surveys, focus groups and written evaluations of the program. A total of 309 students, consisting of 247 nursing students, 41 medical
students, eight pharmacy students, one behavioral health, one public health and 11 social work
students participated in the IP community experience over the first three years. Also, 71 staff and
health care providers from our academic partners were trained, including 46 participants from the
FAU CON CHC and 25 from the homeless shelters. Another 12 FAU faculty members responsible for
student clinical rotations in these community settings were trained. The TeamSTEPPS™ tools and
techniques were customized for relevance in the various community settings. The broad distribu-
tion of this training to community partners, support staff, learners, and faculty allowed for
a shared mental model and common language for collaborating in patient care across disciplines.

4. Institutional context
The Christine E. Lynne College of Nursing at FAU (FAU CON) has 12 program outcomes, one of
which is devoted to interprofessional education (IPE) and IPCP and another committed to “equity
in healthcare outcomes, local and global health policy and healthcare delivery” (Florida Atlantic
University, Christine E. Lynn College of Nursing, 2017a, Expected Student Outcomes #10). Both IPE
and IPCP have been integrated throughout the curriculum, rather than located within one specific
course. Although population/community health does have a specific didactic course, population/
community health clinical experiences are integrated throughout all clinical courses in the curri-
culum. To meet accreditation outcomes, FAU CON has a well-developed IPE program following the
extracurricular model that creates student team experiences in the community setting (Jacomino
et al., 2015). The population/community health clinical experience within this model is integrated,
and the FAU CON CHC and the community partners provide valuable real-world experiences for
nursing students in caring for vulnerable populations. The FAU CON curriculum is grounded in
caring science which is “... focused on the relationship of caring to health, healing, and well-being
of the whole person within the context of the family, community, society ...” (Florida Atlantic
University, Christine E. Lynn College of Nursing, 2017b “Definition of Caring Science”).

The College of Medicine at FAU (FAU COM) matriculated its first class in 2011. Similarly to other
community-based medical schools, FAU COM relies on partnerships with community hospitals and
community-based physicians to provide preceptors and clinical training sites for learners. As a new
medical school, educational leaders had the opportunity to build a third-year curriculum from the
ground up, utilizing best practices and building on the work of existing models which were
developed and studied by other medical schools. For the third-year clinical clerkships, the FAU
COM administration selected a longitudinal integrated clerkship (LIC) model (Norris, Schaad,
DeWitt, Ogur, & Hunt, 2009), with the goal of minimizing the loss of empathy that traditionally
occurs during the clinical year (Hojat et al., 2009; Mahoney, Sladek, & Neild, 2016).

The longitudinal integrated clerkship model involves all medical students enrolled in the
third year. Students spend mornings with inpatient teams and afternoons with their community
preceptors or following their patients to different clinical experiences. Unscheduled “white space”
time is protected clinical time two to three days each week to allow students to follow their
patients for continuity, allowing flexibility to pursue learning opportunities rather than rigid sche-
duling. Students can navigate conflicts between educational priorities by consulting a developed
“educational hierarchy” to guide decisions on how to spend their time. It is within this context at
the FAU COM that the elective IP educational experience of caring for vulnerable populations in
community-based settings was implemented.

5. Key guidance issues
Best practices for learning IP competencies have been well described in the literature (IPEC, 2016).
Educational leaders planning to implement IPE activities within their curriculum can benefit from
understanding the accreditation requirements within each discipline. Based on the curricular
structure within individualized programs, opportunities may exist for curricular and extracurricular
clinical activities that can build upon existing frameworks introduced earlier within programs.
Experiences that promote continuity among teams, training sites, or patients can enhance the
development of IP skills. Ensuring that both faculty and students have a clear understanding of
goals for clinical experiences assures that competencies will be achieved. Specific guiding principles based on these key issues are discussed in the examples outlined in the following section.

5.1. Recognize discipline specific educational requirements and best practices for delivering IP content

The first step in designing our IP community experience was to review curriculum standards. Similar to other healthcare disciplines, accreditation standards specify nursing students must meet IPCP competencies. Didactic and clinical courses are designed to meet the American Association of Colleges of Nursing, 2008 Essentials of Baccalaureate Education for Professional Nursing Practice (Essentials) across the lifespan and in all healthcare settings (e.g., acute care, primary care, population health). Essential VI, Interprofessional Communication, and Collaboration for Improving Patient Health Outcomes, clearly addresses the BSN-prepared RN is to contribute nursing’s unique perspective to IPCP teams “to optimize patient outcomes” (AACN, 2008, pp. 22–23). Essential VII, Clinical Prevention, and Population Health expands upon Essential VI as “collaboration with other healthcare professionals and populations is necessary to promote conditions and health behaviors that improve population health” (AACN, 2008, p. 25).

The Liaison Committee on Medical Education (LCME), which accredits each medical school, requires medical students to learn IP competencies. The COM previously implemented IP educational activities within the pre-clinical curriculum, already meeting the LCME requirement, and removing the imperative to create an additional experience. However, previous studies have documented that clinical experiences are an ideal way to develop and implement IP educational programs, utilizing teams interacting with patients. Clinical learning is central to IPE in health professional programs and allows opportunities for students to utilize the skills learned in practice (Morison, Boohan, Jenkins, & Moutray, 2003). Existing programs document that a combination of both clinical and didactic learning is an effective strategy for delivering IP learning (Chan, Chi, Ching, & Lam, 2010).

5.2. Understand curricular context and extracurricular opportunities

Incorporating IP community experiences within an established curriculum requires careful planning and commitment between faculty and clinical partners (Paré, Maziade, Pelletier, Houle, & Maximilien, 2012; Schoening et al., 2015). In an extra-curricular IPE model content and experiences are developed as “add-ons to existing courses” (Deutschlander, Suter, & Lait, 2012, p. 254). Nursing, social work, and medicine curricula are very prescriptive and designed as full-time, making it difficult to insert new IPE content and clinical experiences. Due to schedules and existing commitments, not all students had the opportunity to participate and engage in IPE in the clinical setting, resulting in missed IPE and IPCP opportunities offered through the community-based experiences. For example, some RN-BSN students’ work full-time as their plan of study is offered 100 percent online, making mandatory IPCP experiences difficult to fit into the existing extracurricular model.

For medical students, this was an optional additional IP learning experience. By offering this experience on an elective basis, students seeking additional experience either in IP teams or in working with vulnerable patients chose to participate. Student engagement was obtained through a variety of techniques. Students were presented with the option to co-develop this curriculum and provide significant input into making adjustments for future classes. Students were also offered the opportunity to earn a certificate of proficiency in IP competency. Feedback from medical students who participated indicated that they appreciated the opportunity to earn a distinct certificate of IP competence, and the invitation to assist in developing future curriculum. During focus groups, many medical students expressed the belief that this experience should be mandatory for all medical students, suggesting that the value of the experience warrants formal inclusion within the curriculum.

5.3. Stack experiences on existing IP basic and advanced experiences

In 2011, FAU developed the Inter-professional Healthcare Educational Program and established the Office of Interprofessional Education in 2013. The purpose of this program is to introduce social work, medical, pharmacy and nursing students to the benefits of collaborating in IP teams. Due to
limited resources, the initial training was limited to role-play and discussing IP scenarios. However, subsequent opportunities included integration of IP competencies into acute care and healthy aging clinical experiences. This project builds on existing IP practices and curriculum to provide effective collaboration and communication skills training for staff, students, and health professionals, in community settings to improve patient outcomes and increase access to quality health services for vulnerable patients.

5.4. Build on the existing evidence-base for IP collaboration

TeamSTEPPS™ is an evidence-based teamwork strategy created by the AHRQ with ready-to-use materials for health professionals. These features made this program ideal for implementation in an environment such as the CHC, since clinics like these care for more than 26 million people with one of every three patients living in poverty (Health Resources and Services Administration [HRSA], 2018), with many of the patient needs requiring a team approach to achieve goals. Historically, TeamSTEPPS™ has been successfully implemented in simulation, ambulatory and acute care settings. The goals of this project were to enhance the care provided at the CHC and enhance IP skills among collaborators. The tools and strategies outlined in TeamSTEPPS™ were easy for academic partners, the CHC and homeless shelters to adopt into their day-to-day practice and sustain over time. Particular tools or strategies from TeamSTEPPS™ can be selected, adapted and implemented to suit each IP team, clinical site and patient population involved.

5.5. Finding time for experiences that promote continuity

Designing and ensuring continuity of IPE experiences, and providing students the opportunity to witness the influence of IPE/IPCP on outcomes is difficult. The planning team identified that the most meaningful experiences for students involved an immersion experience with a clinical partner that had an IPCP team to model best practices. An immersion requires a minimum of three visits, with some students having the opportunity for continued visits over weeks, which is difficult to fit into existing curricular models. Shorter visits can introduce students to IP practice superficially, which is still beneficial and can provide a meaningful experience; however, students do not have the benefit of seeing outcomes as described in the AACN Essential VI for nursing (AACN, 2008). Memorandums of understanding or agreements between organizations should commit to a minimum of three years to allow the project to adapt and grow. This can also provide the opportunity for community organizations to monitor and set goals for outcomes.

5.6. Providing ongoing faculty development

To ensure that the discipline-specific and IPCP competencies are met, faculty development must be provided to encourage the continual use of the IP competencies across settings to reinforce behaviors. This requires that planning coordinators agree on which tools and strategies to emphasize, and how to deliver training. Although there is a director for university IPE at FAU, individual Colleges need to oversee, assess, and evaluate outcomes to provide evidence of meeting these competencies. Having committed leadership on the ground at each clinical site to reinforce IP competencies is also crucial. Providing oversight can address any identified challenges to ensure the availability of a strong IPE teaching/learning environment.

5.7. Prime students and set expectations

Health professions students prepared for their IPCP experience by completing a TeamSTEPPS™ training module and received a refresher when arriving at their clinical site. This allowed students to gain familiarity with the tools and strategies role-modeled in the clinic, and provided foundational knowledge to be activated as they engaged the tools during patient care activities. Students also need to understand that the purpose of their clinic experience is to learn and practice IP skills and that it differs from traditional experiences focusing on improving clinical skills. Setting clear expectations, reinforcing prior knowledge through active learning and rewarding the commitment to IP practice by providing certificates contributed to an engaging experience for learners.
6. Lessons learned
Continuous monitoring, collecting feedback from multiple sources and data points and adjusting the existing experience has led to better understanding of strategies for successful IPE implementation. Building on existing relationships and community partnerships, securing adequate sites, conducting formative and summative program evaluation and assessment, and having leadership support are crucial components for developing successful community-based IP programs.

6.1. Build on existing relationships to implement IPEP
To provide authentic community learning experiences, the IP planning team at FAU utilized relationships established by FAU CON between community health centers, homeless shelters, and other organizations. These affiliations afforded the infrastructure to provide community-based IP clinical opportunities that addressed chronic care, population health, care coordination, integrated care, and care for vulnerable populations. The designated community sites came together because of their collaborative vision for creating a resource network through organizational partnerships that would assess and evaluate physical, mental, and social determinants of health and strive to achieve healthier persons and communities. Existing relationships aided in the process of securing access for students to experience inclusion in care teams and to witness first-hand the value of a team approach to care for these populations.

6.2. Secure community sites and partners
The IP planning team at FAU integrated experiences across three settings to offer a broad range of effective learning practice sites for students that address the community care continuum. Placing health professional students directly in the community where people live and work to address what matters most to them allows for optimal learning experiences from both a preventative and community engagement perspective. The FAU CON CHC was the central hub for community learning experiences as all patients from community partner sites requiring additional follow up services are referred to the center. The CHC provides an innovative application of telehealth and in-person care for vulnerable ethnically and racially diverse populations living with co-morbid conditions. Research has revealed coordinated services delivered by IP teams in nurse-led centers demonstrate positive outcomes and reduce healthcare costs for persons experiencing chronic conditions (Borgermans et al., 2009; Esperat, Green, & Acton, 2004).

The second IP clinical rotation site was The Lord’s Place (TLP), a homeless shelter provider in West Palm Beach, Florida, which encompasses men's, women's, and family campuses. This community partner is a nonprofit, non-sectarian, 501(c) (3) organization that has changed the lives of homeless families and individuals in Palm Beach County for over 30 years by providing supportive housing, case management, linkage to health services, vocational rehabilitation services and job training. TLP offers a wraparound model for care through the utilization of a care team that is composed of diverse providers from several local organizations that meet twice weekly to evaluate and develop a plan of care for each patient. Members of the care teams include Mental Health Nurse Practitioners, Mental Health Therapists, Case Managers, Job Coaches, Reentry Coordinators, Reentry Peer Mentors, Youth Services Coordinators, Family Case Managers, Social Workers, Resource Specialists, and Directors of the Homeless shelters.

Services provided at the homeless shelters include primary and mental health services through partnerships with local health centers, such as the FAU CON CHC. Behavioral health services include addressing substance abuse and post-traumatic experiences, as well as psychotherapy. Over the last five years, the partnership between TLP and FAU has grown stronger, as the teams have co-created services for TLP patients, and participated together in communication and team building educational experiences, and grants to eliminate social, physical, and mental health disparities for marginalized and underserved populations.

The third IP community rotation opportunity was designed for students to participate in outreach events with FAU CON CHC staff. Students requested an opportunity to connect directly with
the population served by the CHC in collaboration with community partners from churches, food pantries, community centers, resource centers, schools, senior centers and residences, urban apartment complexes, and homeless shelters. The goal was to assess and address the healthcare needs of the community by providing early screening, education, and linkage to services. Screenings were provided for diabetes, cardiovascular disease, depression, spirituality and socio-economic status, and level of self-care knowledge.

6.3. Availability of IP team and sites
Difficulties arise when attempting to provide rich and meaningful IPCP experiences. Access to specific community experiences may be limited due to timing and location of services; when a community partner has an IPCP team and invites the students to collaborate with them, the schedule may not be congruent with the schedules of learners. In other words, the IP team may conduct rounds or care team meetings on days that students cannot participate. Increasing the availability of community organizations willing to collaborate with academic partners to improve patient outcomes are beneficial for all parties involved, with success depending on flexibility, and setting clear expectations and schedules in advance to make it a meaningful experience for all.

6.4. Utilize formal and informal monitoring for evaluation and program improvement
Students, staff and health providers completed both qualitative focus groups and quantitative tools (Readiness for Interprofessional Learning Scale; Attitudes Toward Health Care Teams Scale) to assess the experience. Students were asked to write a short reflective paragraph describing their experience at the end of their scheduled project time. Students were eager to share ideas and valued that their feedback was incorporated into future versions of the experience. Informal monitoring such as debriefing after each experience presented the opportunity for rapid evaluation methods to improve the project in real time. Through analysis of data from validated quantitative tools, improvement in both readiness and attitudes toward IP teams was confirmed as a result of this IPCP experience.

6.5. Importance of leadership support
The BSN curriculum has a professional development series within which two of the four courses identify IP outcomes. The Assistant Dean met with the faculty who teach in the series and the IPE team to incorporate IPEP activities as course requirements. A weekly four-hour block of time was built into the student schedule to meet with teams to complete activities, hold conferences and engage in outreach activities. Additional faculty development is under development for the clinical faculty on how to scaffold IP learning within the clinical courses and settings.

Support from educational leaders at FAU COM was obtained by having the clerkship director who oversees the longitudinal outpatient preceptorship with primary care doctors take ownership, and champion the development and implementation of this experience within that clerkship. This identified a course for grounding and evaluating this particular experience, while still encouraging IP experiences across the curriculum. Students understood the context of the experience and had the needed logistical and curricular support.

7. Key resources
Meaningful student, staff, and patient experiences can be created only in close collaboration with community partners, with student buy-in, and with faculty commitment and flexibility from a variety of disciplines. Sustainability for this program requires the continued commitment of each college program coordination team to recruit and schedule students for this experience. While scheduling student clinical time for this experience remains a challenge, the positive feedback from students who have valued the experience encourages educational leaders to remain committed to its inclusion in the curriculum. The evaluation data supports that medical students and nursing students are improving their IP skills because of this experience, making it easier to secure time in the curriculum. Significant amounts of time are required for all colleges to meet, plan, evaluate, and improve these projects; however, the committed core group was able to
maintain enthusiasm, open communication, and ensure commitment to the project to promote sustainability.

8. Conclusion
The planning team’s focus has shifted to sustainability with changes in leadership at the CHC. Community IPCP experiences should be available to every student in each health professions program. Students can then be encouraged to advocate on behalf of these populations, while better preparing themselves for future IP practice to benefit all patients. Through co-creating this experience and learning and working together, community partners, academic centers and health care providers develop a culture of trust, shared-leadership, and joint solutions. Together they explore underserved, vulnerable and homeless population needs and link theory, research and practice by way of practice evaluation; conducting community needs assessments; and participating in focus groups, project development and IP team practice, which serves as a model to renovate community care and better prepare the future healthcare workforce.

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References
American Association of Colleges of Nursing. (2008). The essentials of baccalaureate education for professional nursing practice. Washington, DC: Author. Retrieved from https://www.aacnnursing.org/Portals/42/Publications/BaccEssentials08.pdf
Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: Care of the patient requires care of the provider. Annals of Family Medicine, 12(6), 573–576. doi:10.1370/afm.1713
Borgermans, L., Goderis, G., Van Den Broeke, C., Verbeke, G., Carbonez, A., Ivanova, A., & Grol, R. (2009). Interdisciplinary diabetes care teams operating on the interface between primary and specialty care are associated with improved outcomes of care: Findings from the Leuven diabetes project. BMC Health Services Research, 9, 179–194. doi:10.1186/1472-6963-9-179
Chan, A. E., Chi, S. P. M., Ching, S., & Lam, S. K. S. (2010). Interprofessional education: The interface of nursing and social work. Journal of Clinical Nursing, 19, 68–75. doi:10.1111/j.1365-2702.2009.02854.x
Deutschlander, S., Suter, E., & Loit, J. (2012). Models in interprofessional education: The IP enhancement approach as an effective alternative. Work, 41(3), 253–260. doi:10.3233/WOR-2012-1293
Esperat, M. C., Green, A., & Acton, C. (2004). One vision of academic nursing centers. Nursing Economics, 22(6), x37–x372. 319.
Florida Atlantic University, Christine E. Lynn College of Nursing. (2017a). Curriculum model. Retrieved from http://nursing.fau.edu/academics/curriculum-model.php
Florida Atlantic University, Christine E. Lynn College of Nursing. (2017b). History & introduction. Retrieved from http://nursing.fau.edu/about/college-at-a-glance/
Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., Crisp, N., Evans, T., & Zaryank, H. (2010). Transforming education to strengthen health systems in an interdependent world. The Lancet, 376(9756), 1923–1928. doi:10.1016/S0140-6736(10)61854-5
Health Resources and Services Administration (HRSA). (2018). HRSA Health Center program website. Retrieved from https://bphc.hrsa.gov/about/
Hoijt, M., Vergare, M. J., Maxwell, K., Brainard, G., Herrine, S. K., Isebeng, G. A., ... Gonnella, J. S. (2009). The devil is in the third year: A longitudinal study of erosion of empathy in medical school. Academic Medicine, 84(9), 1182–1191. doi:10.1097/ACM.0b013e3181b17e55
Interprofessional Education Collaborative. (2018). Core competencies for interprofessional collaborative practice: 2016 update. Washington, DC: Author.
Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative.
Jacomino, M., Bamdas, J. A. M., Keller, K., Hamlin, E., Hawkins, M., Gordon, S., & Ouslander, J. G. (2013). An innovative interprofessional education program for university medical nursing, and social work students learning in teams during sessions and visits with geriatric mentors. Journal of Interprofessional Education & Practice, 1(3–4), 100–103. doi:10.1016/j.jnep.2013.03.010
King, H. B., Battles, J., Baker, D. P., Alonso, A., Salas, E., Webster, J., ... Salisbury, M. (2008, August). TeamSTEPPS™: Team strategies and tools to enhance performance and patient safety. In K. Henriksen, J. B. Battles, M. A. Keys, et al. Eds., Advances in patient safety: New directions and alternative approaches (Vol. 3, Performance and Tools). Rockville, MD: Agency for Healthcare Research and
Quality (US). Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK43686/

Mahoney, S., Sladek, R. M., & Neild, T. (2016). A longitudinal study of empathy in pre-clinical and clinical medical students and clinical supervisors. BMC Medical Education, 16(1), 270–278. doi:10.1186/s12909-016-0777-z

Morison, S., Boohan, M., Jenkins, J., & Moutray, M. (2003). Facilitating undergraduate interprofessional learning in healthcare: Comparing classroom and clinical learning for nursing and medical students. Learn Health Social Care, 2(2), 92–104. doi:10.1046/j.1473-6861.2003.00043.x

Norris, T. E., Schaad, D. C., DeWitt, D., Ogor, B., & Hunt, D. D.; Consortium of Longitudinal Integrated Clerkships. (2009). Longitudinal integrated clerkships for medical students: An innovation adopted by medical schools in Australia, Canada, South Africa, and the United States. Academic Medicine : Journal of the Association of American Medical Colleges, 84(7), 902–907.

Paré, L., Maziade, J., Pelletier, F., Houle, N., & Maximilien, I.-F. (2012). Training in interprofessional collaboration. Canadian Family Physician, 58(4), 203–209.

Patel, K., Boutwell, A., Brockmann, B. W., & Rich, J. D. (2016). Integrating correctional and community health care for formerly incarcerated people who are eligible for Medicaid. Health Affairs (project Hope), 33(3), 468–473. doi:10.1377/hlthaff.2013.1164

Robson, M., & Kitchen, S. S. (2007). Exploring physiotherapy students’ experiences of interprofessional collaboration in the clinical setting: A critical incident study. Journal of Interprofessional Care, 21(1), 95–109. doi:10.1080/13561820601076560

Schoening, A. M., Selde, M. S., Goodman, J. T., Taw, J. C., Selig, C. L., Wichman, C., ... Galt, K. A. (2015). Implementing collaborative learning in prelicensure nursing curricula: Student perceptions and learning outcomes. Nurse Educator, 40(6), 183–188. doi:10.1097/NNE.0000000000000150

TeamSTEPPS: National Implementation home page. Team STEPPS AHRQ website. Retrieved from http://teamstepps.ahrq.gov

U.S. Department of Health and Human Services. (2017). Healthy People 2020: Health communication and health information technology. Washington, DC: Author. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/

World Health Organization. (2010). Framework for action on interprofessional education and collaborative practice (WHO/HRH/HPN/10.3). Retrieved from http://www.who.int/hrh/resources/frame_work_action/en/