DEVELOPMENT OF AN INTERPROFESSIONAL EDUCATION INTERACTIVE TOOLKIT FOR GEORGE MASON UNIVERSITY SCHOOL OF NURSING

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ABOUT THE TOOLKIT

This toolkit is designed to assist leaders and educators at GMU Nursing School in facilitating Interprofessional Education (IPE) experiences that meet student learning objectives. The toolkit contains best practice resources and learning activities for developing, implementing, evaluation and sustaining IPE. The implementation phase of this toolkit is designed after the University of Toronto Interprofessional Framework using the Exposure, Immersion, and Competency (EIC) IPE Framework.

WHAT IS IPE?

“Interprofessional education occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes. Once students understand how to work interprofessionally, they are ready to enter the workplace as a member of the collaborative practice team. This is a key step in moving health systems from fragmentation to a position of strength.”


WHY IPE?

The increase in chronic conditions and comorbidities demands reform to the traditional method of unidisciplinary care, where a group of healthcare experts works in isolated silos. A growing body of evidence suggests that a multidisciplinary approach to patient care reduces medical errors, improves staff satisfaction and most importantly, improves patient outcomes and patient safety (Earnest and Brandt, 2014; Cox, Cuff, Brandt, Reeves, & Zierler, 2016; Ricketts and Fraher, 2013; Murphy, & Nimmagadda, 2015; WHO, 2010).
The goal of interprofessional education is to develop health professionals who are experts in collaborative practice and positively influence the delivery of safe and quality care. IPE offers students the opportunity to learn from and with other health professionals in shared decision making while acknowledging and respecting the difference in opinions of other team members (Lochner et al., 2018).

**Core Competencies of IPE**

1. **Values/Ethics:** Work with individuals of other professions to maintain a climate of mutual respect and shared values.

2. **Roles/Responsibilities:** Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of patients and to promote and advance the health of populations.

3. **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.

4. **Teams/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.

Interprofessional Education Collaborative (2019). Core competencies for Interprofessional Collaborative Practice: 2016 update
Exposure – Immersion - Competency (EIC) Model

The Exposure – Immersion – Competency IPE Framework guides students’ progression towards IPE competency.

Exposure (Introduce): The exposure phase introduces students to the fundamental and theoretical bases of IPE. This stage helps students gain a deeper understanding of their profession while appreciating the unique knowledge and skills of other health professions and their differences in opinions.

Immersion (Application): The immersion phase advances the students’ knowledge and skills gained in the exposure phase. This phase uses simulation and clinical practice to teach students how to apply the competencies of IPE to clinical scenarios effectively.

Competency (Practice): Students have a better sense of who they are as practitioners and have gained mastery in using the methods learned in the exposure and immersion phase. Students continue to use this mastery in clinical practice with continued development of interprofessional competencies while they work with patients, families and clinical interprofessional teams.

University of Toronto: Center for Interprofessional Education (2014).

Framework for the development of Interprofessional Core Competencies.

I. PLANNING OF INTERPROFESSIONAL EDUCATION

According to the literature, processes that promote the successful implementation of an IPE program include buy-in and the support of high-level administrators, an operation committee, training educators and funding and grants opportunities.

A. Administrative buy-in and support:

High-level administrative support is necessary for the long-term success of any IPE program. The following resources offer guidance in achieving this goal:


**B. IP Champions**

Having a cadre of IP champions comprising of administration, faculty and students are imperative to the successful building and sustaining of an IPE program according to the following resources:


C. Funding/Grants Opportunities

The sustainability of an IPE program depends on significant funding, grants or scholarship. Websites that offer to finance for IPE development and sustainability include:

Josiah Macy Jr. Foundation
Health Resources and Services Administration
W.K. Kellogg Foundation
Fund for the Improvement of Postsecondary Education – Comprehensive Program
Robert Wood Johnson Foundation

D. Tools for Faculty Development

Faculty development is an essential component of a well-developed IPE program and guarantees the continuing success of students’ growth in IPE competencies. The following are resources for faculty development:

Train-the-Trainer (T3) Faculty Development Training Program

The T3 Program is an immersive leadership-training program for teams wanting to learn how to design and implement effective interprofessional education and collaborative practice projects at their institutions. The program includes three elements: pre-work, a 3.5-day in-person program, and several coaching calls and webinars (National Center for Interprofessional Education and Practice [Nexus, 2018]).

Education, Training, and Professional Development

This two-day workshop in Minneapolis offers interprofessional teams the knowledge to enhance interprofessional learning and team-based collaborative practice at their site. To further support networking and learning after six months, the Preceptors in the Nexus (PIN) team will offer a two-hour online symposium and “office hours” (NEXUS, 2018).
Preceptors in the Nexus Toolkit

The toolkit provides professional development opportunities for preceptors who provide education in practice settings to interprofessional learners. These resources include a wide array of tools that support and enrich interprofessional practice and training to enhance patient care and the learner experience (NEXUS, 2018).

Interprofessional Education Curriculum Development Guide for Health Professions Faculty

This curriculum guide is intended for faculty members in health professions education programs seeking to design and implement interprofessional learning activities in the area of clinical prevention and population health. The current national focus on interprofessional education and collaborative practice is conducive to the teaching of future health professionals in disease prevention and population health and can facilitate the achievement of the nation’s health goals outlined in Healthy People 2020 (NEXUS, 2018).

Center for Medical Simulation

Four- and five-day courses that cover all high-level elements and concepts involved in running a simulation program such as debriefing, adult education, scenario development, assessment and research (Center for Medical Simulation, n.d.).

TeamSTEPPS online Master Trainer Course

TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) is an evidence-based team training and implementation toolkit that demonstrates techniques of effective communication and other teamwork skills (U.S. Department of Health & Human Service, 2018).
AIHC Interprofessional Webinar Series

The AIHC Interprofessional Webinar Series offers a forum for leaders who are committed to systems transformation through interprofessional collaboration and learning. The Webinar Series is designed to showcase important transformational interprofessional education and interprofessional collaborative practice efforts (NEXUS, 2018).

Webinar: Guidance on Developing Quality Interprofessional Education

This guidance is designed to facilitate the preparation of health professional students for interprofessional collaborative practice through accreditor collaboration and to provide consensus guidance to enable institutions to develop, implement, and evaluate systematic IPE approaches and IPE plans (NEXUS, 2018).

E. Learning Activities for Faculty Development

The use of simulation to periodically train faculty in IPE activities assists faculty to have practical experience of the relevant skills that are necessary for students attainment of IPE competencies. The experience also assists faculty in developing efficient and realistic IPE curricula. Simulation experience for faculty training include:

“The Safety Dance”: A Faculty Development Workshop Partnering IPE and Patient Safety Initiatives Using Simulation-Based Education

The goal of this faculty development workshop is to train administrators and educators from academic health care institutions to address potential challenges faced during the design and implementation of IPE programs. This educational module presents best practices for implementing simulation-based IPE to enhance patient safety through an interactive workshop. This activity involves hands-on training with coaching through a facilitated small-group tabletop simulation followed by a large-group discussion driven by the case-based method to maximize
learning and engage a diverse audience (Wong, Ruppel, Gang, & Ng, 2016). The materials associated with the module include faculty learning objectives, workshop outline, a PowerPoint slide show, an evaluation tool, and a summary handout for the participants and can be downloaded from the appendix section.

**Faculty Development Interprofessional Education Curriculum (IPEC): Case-Based Learning of IPE via a Complicated Newborn Resuscitation: Baby Boy Blue**

This resource serves as an integral instructional tool for faculty development to familiarize educators with the goals of interprofessional education collaboration (IPEC). This resource was designed as a faculty development instructional tool; however, it is also relevant for numerous healthcare professionals or students such as nurses, physicians, social workers, pharmacists, pre-hospital providers, nurse practitioners, and physician assistants. A video discussion of good and poor IPE examples is provided as Option 1. Option 2 is a simulation case and participants participate in the resuscitation of Baby Boy Blue (Griswold, S., Montgomery, Morse, Frbayi, & Farabaugh, 2014). The materials associated with this module are learning objectives, Faculty resource guide, videos and video guide, stimulation scenario, learner’s stimulus, and evaluation tool that can be downloaded from the appendix section.

**II. IPE IMPLEMENTATION**

(Exposure – Immersion- Competency Framework)

**A. Exposure Phase Learning Activities**

The following case studies are sample learning activities that can be used to introduce learners to the exposure phase of IPE:

**Patient Safety Interprofessional Training for Medical, Nursing, and Pharmacy Students**
This learning activity presents a case study about a 70-year-old male with a fall. Student participants discuss the case presentation, develop a care plan, and answer questions. This training activity prepares learners for the clinical environment by providing a context for patient safety, communication, and teamwork. (Gill et al., 2017). Teaching resources include student learning objectives (SLOs), case presentation slides, facilitators guide and evaluation tool.

Elizabeth: Typical or Troubled Teen?

This video case study highlights the complexities inherent in suspected child maltreatment and also emphasizes the importance of team-based care, roles, and communication. Teams would collaborate to develop a patient/family-centered plan of care for a 15-year-old female, Elizabeth, who was establishing care with a new primary care provider. Teams developed a prioritized plan of care following the vignette. After the conclusion of the event, trainees and facilitators completed evaluations to measure trainee progress toward the learning objectives (Sonney, Willgerodt, Lindhorst, & Brock, 2018). Teaching resources include SLOs, facilitator training, educational program slides, facilitator guide, two video vignettes, and trainee and faculty evaluation tools.

Essentials of Ambulatory Care: An Interprofessional Workshop to Promote Core Skills and Values in Team-based Outpatient Care

This workshop is an interprofessional experience exploring core concepts in outpatient care for student participants. The teaching experience focuses on four key content areas: teamwork, systems thinking, the patient-centered health care home, and patient-centered communication (Borman-Shoap et al., 2018). Tools for instruction include brief didactics, role-
plays, team-based experiences, and interactive skill practice. Participants complete an end-of-day survey that reflects on knowledge and attitude gained.

The Power of a Team: Using Unfolding Video Cases in Interprofessional Education for Advanced Health Trainees.

This learning activity is for advanced health learners who are early in their training yet have already had some clinical experience. The case involves two unfolding video cases—a mother-infant dyad seeking care and an elderly non-English-speaking man experiencing disjointed care. (Willgerodt, Sonney, Liner, & Barchet, 2018). Resources include SLOs, PowerPoint slides, case study videos, faculty/facilitator guide, case notes, and evaluation tool.

B. Immersion Phase Learning Activities

The following case studies are sample learning activities that can be used to train learners in the immersion phase of IPE:

Stroke Simulation Activity: A Standardized Patient Case for Interprofessional Student Learning

This learning activity is an interprofessional stroke simulation involving standardized patients developed and instituted for IPE-naive student learners. This framework focuses on a set of interprofessional core competencies and includes shared values and ethics, roles and responsibilities, communication, and teams and teamwork (Karpa et al., 2018). Downloadable teaching resources include Logistics, Standardized patient (SP) case development tool, case prebrief, student instructions, IPE assessment rubric, SP recruitment, SP training and guidance, timekeeper verbal instructions, and facilitator IPE debriefing guide.

Dyspnea in a Hospitalized Patient: Using Simulation to Introduce Interprofessional Collaborative Practice Concepts
Based on TeamSTEPPS concepts, this simulation case scenario was developed to engage learners from various health care professions in interprofessional teamwork. Learners are evenly distributed into groups based on their professional training to provide an opportunity to function as a team. Faculty starts by introducing interprofessional teamwork skills based on TeamSTEPPS concepts and providing an activity in which teams compete to create the longest paper chain. Next, faculty runs a scenario featuring a standardized patient or high-fidelity manikin developing dyspnea in a simulated hospital setting (Wilson & Vorvick, 2016).

Downloadable teaching resources include SLOs, Dyspnea Case Simulation template, Dyspnea Case Diagnostic test results, Learner and Faculty materials; Dyspnea Case debrief materials, Teamstepps introduction, Dyspnea Case storyboard, Dyspnea Case standardized patient, Evaluation, Dyspnea medical management overview and Dyspnea Scenario orientation.

**Integrative Health: An Interprofessional Standardized Patient Case for Prelicensure Learners**

This interprofessional standardized patient exercise (ISPE) provides learners the opportunity to discuss various health care professionals’ roles in caring for a patient interested in integrative health strategies and in collaborating on a care plan. Healthcare students are divided into a preassigned group, assess the patient, and develop a comprehensive care plan for the patient. In this formative exercise, students are evaluated by their peers and by the SP. These assessments collectively provide feedback to students on their collaboration-related behaviors and communication skills. Students are also offered the option of watching a video of themselves from any part of the exercise with a faculty facilitator at a later date (Rivera et al., 2018). Teaching resources include SLOs, SP training materials, student feedback form, ISPE materials checklist, faculty facilitator guide, ISPE orientation slides, dental findings power points, sample schedule grid, presenting information door, instructions, huddle tip Sheet,
Interprofessional Team care plan Template, sample Interprofessional Team care plan, student ISPE evaluation form and faculty ISPE evaluation form.

Discharging Mrs. Fox: A Team-Based Interprofessional Collaborative Standardized Patient Encounter

The SP, Mrs. Evelyn Fox, is a 62-year-old nearing discharge after a stroke and hip fracture that resulted from new-onset atrial fibrillation. During the session, student interprofessional teams collaboratively develop a discharge plan that incorporates their own scripted personal and professional priorities and those of the other team members and patient. A debriefing session after the SP encounter explores the differing perspectives and priorities of interprofessional team members, bias, conflict, and capable team communication (Richmond et al., 2017). Downloadable resources include SLOs, each health professional roles, session agenda, participants instructions, SP chart materials, faculty observer guide, prebrief email communication, debrief facilitator’s guide, faculty observer’s guide, debrief questions and collaborative care plan and evaluation tool.

C. Competency Stage Learning Activities

The following case studies are sample learning activities that can be used to train learners in the competency phase of IPE:

GeriWard Falls: An Interprofessional Team-Based Curriculum on fall in the Hospitalized Older Adult

The students work together with a hospitalized older adult to interview the patient, conduct a focused history and exam, and complete a team worksheet. The 2-hour exercise consists of participation in a team-based falls risk assessment at the bedside of a hospitalized older adult, development of a fall care plan and communication with the patient and student
participants, and completion of clinical questions focused on systems-based interventions to reduce fall risk (Lawrson, O’Brien, Renneke, 2016).

The Interprofessional Clinical Experience: Introduction to Interprofessional Education through Early Immersion in Health Care Teams

This longitudinal experience requires students to spend seven half-days in an inpatient setting and seven half-days in an outpatient setting throughout one academic year. The goal of using both inpatient and outpatient settings is to expose students to differences in care delivery, pace, the role of health care professionals, and how health care teams operate in different contexts. Students are instructed to actively observe and interact with someone from another profession with the intent to learn about the professional’s roles and responsibilities, style of communication, and how the professional fit into the more extensive system of health care. After each experience, students require that the person they observed assess them on competencies related to professionalism, communication skills, and teamwork (Haque et al., 2017).

All case studies are adapted used in this toolkit were adapted from MedEdPortal (2019). Associated learning and teaching resources can be downloaded from the appendix section of the case study.

III. IPE EVALUATION

Consistent feedback from faculty and students are essential for the continued improvement to IPE activities. Measuring outcomes enhance scholarly productivity and program effectiveness. A plethora of IPE evaluation tools which are valid and reliable can be found at the National Center for Interprofessional Practice and Education.
IV. ADDITIONAL RESOURCES FOR MANAGING IPE

**National Center for Interprofessional Practice and Education**

This center is a public-private partnership that provides resources to guide interprofessional education program development innovation. It provides resources to assist institutions in integrating health professions education with practice. The center’s goal is to promote quality healthcare practices that improve population health and reduce health costs (Nexus, 2018).

**Interprofessional Education Collaborative (IPEC)**

The Interprofessional Education Collaborative provides learning modules and other educational resources to assist academic institutions in developing effective IPE curricula that support learners attainment of IPE core competencies (IPEC, 2019).

**Canadian Interprofessional Health Collaborative (CIHC)**

A Canadian based national hub for interprofessional education, collaboration in healthcare practice and patient-centered care (CIHC, 2018).

**Centre for The Advancement of Interprofessional Education (CAIPE)**

This center provides education materials for interprofessional education, including articles, presentations, reports, publications, vignettes and online education resources (CAIPE, 2019).

**Transforming Interprofessional Groups through Educational Resources (TIGER)**

This center provides a wide array of educational resources to prepare health professionals for effective team collaboration to improve health collaboration and quality of care.
American Interprofessional Health Collaborative (AIHC)

The AIHC offers webinar series to empower leaders committed to changing the system through interprofessional education and practice collaboration (AIHC, 2018).

National Academy of Medicine (formerly Institute of Medicine)

The National Academy of Medicine provides objective ideas, suggestions, and evidence to government and private sector to assist them in developing innovative approaches that promote quality of care in healthcare delivery worldwide. This organization is a significant stakeholder in promoting interprofessional education worldwide (NAM, 2018)

MedEdPORTAL Interprofessional Education (IPE) Portal

MedEdPORTAL is an open journal of education that offers learning modules and teaching resources for interprofessional education. This portal provides different teaching strategies including didactic, simulation and real patient setting instructional documents and videos to be used by facilitators of IPE (MedEdPORTAL, 2019).

Jefferson Center for InterProfessional Education

This center offers IPE programs and initiatives developed by the center, advances in IPE research, innovative teaching models and evaluation tools (Jefferson Center for Interprofessional Education, 2019).

University of Toronto Center for Interprofessional Education

This center provides DVD tools, video files, glossary, reports and brochures, web tools and toolkits and research papers to guide IPE activities (University of Toronto, 2016).
This institution provides a library of IPE resources, learning modules, case studies, and simulation resources for students, educators, researchers, and clinicians involved in interprofessional education (University of Washington, 2018).

**V. CONCLUSION**

IPE is an essential component of healthcare education because IPE leads to effective Interprofessional collaboration which is a necessary competency for healthcare professionals. The purpose of this toolkit is to guide educators to the best and most updated resources for developing curricula that help students attain IPE competency. Twenty participants comprising of IPE directors from GMU and external universities, GMU faculty and final year Doctorate of Nursing students evaluated the contents of this toolkit. Feedback from these stakeholders indicated that the toolkit is a needed and a necessary resource for the IPE program. On a much broader scale, this toolkit serves as a guide for schools desiring to engage in IPE initiatives and are seeking best practice resources to assist with its development.
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