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**Published:** January 31, 2024

**Citation:** Penrod D, Whittington K, et al., 2024. Interprofessional Education to Impact Professional Nursing Clinical Practice, Medical Research Archives, [online] 12(1). <https://doi.org/10.18103/mra.v12i1.5017>

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**DOI**

<https://doi.org/10.18103/mra.v12i1.5017>

**ISSN:** 2375-1924

RESEARCH ARTICLE

## Interprofessional Education to Impact Professional Nursing Clinical Practice

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### ABSTRACT

Since the Joint Commission issued its roadmap for hospitals in 2010 outlining the need for interprofessional collaboration for safety, quality, and effectiveness in patient care, institutions have sought to improve the healthcare environment. While communication and teamwork have improved in recent years, the Joint Commission and the World Health Organization have continued to stress the importance of the key components of interprofessional collaboration: an understanding of other disciplines' values/ethics and roles/responsibilities and the ability to communicate work as a team. Researchers have concluded the importance of introducing interprofessional education in pre-licensure settings to impact future healthcare professionals' ability to collaborate with other disciplines in the workplace. Several nursing schools have implemented strategies for interprofessional education and are looking for new, innovative ways to simulate interprofessional collaboration for future practice.

**Keywords:** interprofessional education, nursing, pre-licensure nursing education

## Interprofessional Education to Impact Professional Nursing Clinical Practice

In our increasingly complex healthcare environment, healthcare providers must collaborate to impact patient outcomes. From physicians to nurses to therapists, and to all professional staff who interact in caring for patients, a smooth coordination of care must be in place for optimal results. A sense of teamwork with shared values, mutual respect for roles, and effective communication have been identified as factors that impact patient health.<sup>1-3</sup> The ability of all disciplines to work collaboratively and communicate well directly impacts patient outcomes. The Interprofessional Education Collaborative (IPEC), endorsed by 22 professional organizations including the American Associations of Colleges of Nursing and the National League for Nursing, has listed core competencies that should be included in training which include values and ethics, roles/responsibilities, communication, and teams/teamwork.<sup>1</sup> The 2023 Hospital National Patient Safety Goals called for better communication among staff to improve patient outcomes as well.<sup>4</sup> Studies have shown that 30-60% of medical errors have been attributed to miscommunication with many errors potentially causing patient harm.<sup>2,5</sup> Since IPEC was formed in 2009, more and more health science schools have collaborated in educational endeavors.<sup>1</sup> The following paragraphs explore the state of interprofessional collaboration in the clinical setting, initiatives that have been done to use interprofessional education (IPE) and the challenges of implementing IPE, opportunities from recent research, and new ideas to provide pre-licensure interprofessional education to impact future healthcare.

## Interprofessional Collaboration and Education in the Clinical Setting

The importance of a team approach in promoting optimal care has become increasingly important as the healthcare system has become more complex. Lack of high-quality teamwork and communication can result in potential patient harm<sup>7</sup>. Of the healthcare professions interacting in clinical settings, the physician/nurse relationship has been most researched. In a systematic review from 1970—2016, Matthys et al<sup>6</sup> found that patient satisfaction improved when nurses and physicians collaborated on care as well as decreased days of hospital stays.<sup>8-11</sup> With this knowledge, Erjavic, Knas and Bedencic<sup>12</sup> referenced several sources that demonstrate that teamwork is still lacking in the healthcare setting<sup>13-15</sup>. In a series of interviews of patients and practitioners, the researchers found that in general interprofessional team members had

a “moderately good” opinion of communication within the team but a lower opinion of equal participation in communication across all the members (p. 35).<sup>12</sup> Suggestions to improve interprofessional communication lie in team training across all disciplines.

Foronda, MacWilliams, and McArthur<sup>16</sup> specifically researched interprofessional communication between nurses and physicians from 2005—2014 and cited reasons for deficiencies in communication which included differences in communication styles and hierarchies that occurred during that time. Suggestions to improve this communication gap included the use of the SBAR tool (Situation Background Assessment Recommendation or Request) and increased simulation in training programs across all disciplines in practice and prelicensure settings<sup>17</sup>. The widespread use of the SBAR tool to communicate more effectively as well as instituting team huddles has improved communication across disciplines in recent years<sup>18</sup>. Research has also noted that COVID-19 positively influenced perceptions of nurses as team members by their increased involvement in communicating patient needs and patient management<sup>19</sup>. In a qualitative study, Zahara, Tahlil, and Darmawati underscored how important interprofessional collaboration may be to provide comprehensive care in an environment of mutual trust, understanding, and consistent leadership.<sup>20</sup>

In contrast to research involving collaboration between physicians and nurses, collaboration between therapists and nursing has been lacking although just as important in impacting patient outcomes and quality of life post-discharge. In 2014, physical therapists promoted an initiative to increase early mobility in the intensive care unit (ICU) at Baylor University Medical School<sup>21</sup>. Profound results occurred as the number of patient referrals for physical therapy changed from 364 to 542 between the years 2011--2013 when the critical care team worked collaboratively. The components of this collaboration included nursing educating therapists about electrocardiography strips and common complications seen in the ICU and what assessment findings would inhibit patients from participating in physical therapy and respiratory therapists providing education about oxygen delivery devices and how to adapt devices according to patients' activity level. In turn, physical therapists educated nursing and other therapy staff about the benefits of early mobility. This series of educational meetings resulted in a change in physical therapy referrals in the ICU and eventually expanded to other ICU settings across the system. In short, this initiative increased communication

across disciplines in the ICU which led to better patient outcomes.

## The Challenge for Interprofessional Education in the Clinical Setting

Several years ago, the Institute for Medicine<sup>22</sup> and the World Health Organization<sup>23</sup> recommended interprofessional education (IPE) to improve patient outcomes as well as encourage collaboration in the clinical setting. Interprofessional education provides pre- or post-licensure instruction to various healthcare disciplines simultaneously thereby creating opportunities for students to connect professionally before they enter the workforce. By providing opportunities for learning before post-licensure practice, the goal of IPE is to expose students to other members of the healthcare team to learn about their roles/relationships, and communication skills to boost student confidence.<sup>24</sup>

One option to encourage IPE is in the clinical setting. Clinical instructors have exposed students to other disciplines by job shadowing with their main focus on their discipline in the past. Walker et al<sup>25</sup> researched perceptions of IPE when implemented in the clinical setting. In a mixed methods study involving clinicians from allied health, medicine, nursing, and midwifery, participant responses highlighted the importance of IPE in seeing the patient's side of their stay, encouraging teamwork, and developing collaborative skills. Furthermore, the participants stated that learning collaboratively encouraged conversation about roles and relationships while also assessing and gaining insights from other professions' varying perceptions of patient situations. Challenges were also expressed in this study to IPE in the clinical setting which included time constraints and competing priorities in the busy healthcare environment. The authors cited conflicting schedules, missed opportunities, and organizational leadership deficiencies as challenges to IPE in the clinical setting. These obstacles were like the challenges of interprofessional collaboration among practitioners.<sup>26</sup> Since the Walker et al<sup>25</sup> study took place in a rural setting, the authors stated that these shared clinical experiences may be the only time that students across disciplines would be able to learn interprofessionally before practice.

## Opportunities for Interprofessional Education in Pre-licensure Experiences

Lennen and Miller<sup>27</sup> gave suggestions for nursing curricula based on the Interprofessional Educational Collaborative to create a curriculum that includes the core competencies of interprofessional collaboration.<sup>1</sup> To encourage opportunities for

learning across disciplines, recent attempts have been made to incorporate nursing with other groups. The MoveMore program was developed to train nursing students and physical therapy students in a community-based walking class developed by their respective faculty members. The purpose of the program was to engage students with the community by providing a walking class for participants with chronic stroke<sup>28</sup>. Three eight-week sessions were offered in 2022 with more sessions planned in 2023. The results from an IPE survey demonstrated that creating a program that incorporates IPE helped students perceive themselves as more comfortable with communicating across disciplines as well as understanding each healthcare professional's roles/responsibilities and feeling a sense of teamwork.

Simulation has also been used in recent years to address the obstacles of IPE in the clinical setting of time constraints in a busy healthcare environment of missed opportunities for learning interprofessionally for prelicensure students. Venville and Andrews<sup>26</sup> designed an IPE program called, "Building Great Healthcare Teams" that involved social work, occupational therapy, physiotherapy, speech pathology, nursing, psychology, and dietetics students (n = 24) to encourage collaboration. A three-day program was attended that involved lectures, audio, video, small group exercises, case studies, high fidelity inpatient and outpatient simulation, role-playing, and critical reflection (p. 273). Following these activities, participants reported an increased understanding of roles/relationships, confidence, and problem-solving in potential work experiences. In 2022, the University of Kansas Medical Center's (KUMC) Center for Interprofessional Practice, Education and Research (CIPER) developed a curriculum that encompassed small group discussion, case studies and simulation around the IPEC competencies as well as TeamSTEPPS, a set of evidence-based teamwork tools.<sup>29, 30</sup> The disciplines involved in KUMC's study included students who had graduated from the laboratory science, medicine, nursing, pharmacy, physical therapy, and respiratory therapy programs. Results conveyed the positive influence an IPE curriculum can have on perceptions of teamwork, patient-centered care, patient outcomes and patient satisfaction (p. 3)

Another method of simulated IPE researched by Bender, Veenstra, and Yoon<sup>31</sup> was improvisation or the use of acting and structured role-playing to stimulate conversation within a patient scenario. A literature review about the use of improvisation as well as a survey was conducted to measure the feasibility of a healthcare improvisation workshop.

In retrospect, the authors concluded that the feasibility of implementing the workshop was high and plans would be underway to use this modality in the nursing curriculum.

## New Opportunities for Interprofessional Education in the University Setting

Since the inception of a new baccalaureate nursing program in the Fall of 2020 in the midwestern United States, new opportunities for IPE have presented themselves at a public university. Nursing faculty who had previously worked in prelicensure community college settings have now found multiple opportunities to work with other disciplines to provide education to impact healthcare care within this region. These opportunities may serve as a model for other nursing schools to collaborate with health sciences majors to address IPEC Core Competencies of values and ethics, roles/responsibilities, interprofessional communication, and teamwork.<sup>1</sup>

IPE Day in February 2023 was designed by faculty from Nursing, Occupational Therapy, Physical Therapy, and Communication Disorders and Sciences (speech therapy) to address the needs of therapy students who were heading to clinical as well as allow nursing students to take a leadership role in educating the therapies about the clinical setting as well as build teamwork across the disciplines. Activities were held in a lecture hall in the morning with each discipline educating the other disciplines about relevant topics related to their practice and the Nursing Simulation Lab for active learning in the afternoon. Nursing students discussed various nursing roles therapy students may encounter in the clinical setting, medical conditions that may interfere with therapy, and how to give status reports. Occupational therapy students reviewed different types of adaptive equipment and physical therapy demonstrated types of transfers. Speech therapy students showed a modified barium swallow video and different consistencies of liquids while nursing students showed different components of an intensive care room with a high fidelity mannikin in the Nursing Simulation Lab. Nursing students performed some improvisational learning by portraying an Alzheimer's patient with dementia and diabetes and another patient with lung cancer who desired to be classified as palliative care only. All groups explained their roles and responsibilities with patient care. A pre-/post-test survey was conducted which produced significant paired t-test scores related to three of the four IPEC domains: communication ( $t = -6.500$ ; Cohen's  $D = 1.01893$ ),

teamwork ( $t = -6.784$ , Cohen's  $D = 0.98495$ ;  $t = -6.180$ , Cohen's  $D = 0.92485$ ) and roles/responsibilities ( $t = -1.01852$ ). Due to the success of this day, IPE Day will continue as an annual event.

This past year, other opportunities have arisen for IPE at this university which also provides a medical school. The School of Medicine faculty asked their students to collaborate on some educational activities as well. In the past year, senior nursing students taught physician assistant students how to take vital signs as part of an IPE activity with the university's physician assistant program and later were asked to teach medical students how to start peripheral intravenous catheters in the Nursing Simulation Lab. In Spring 2023, senior nursing students participated in the Interprofessional Education Collaboration Event along with social work students, physician assistant students, and School of Medicine students. Students were divided into interprofessional teams to discuss a case study involving a patient with Parkinson's disease. The discussion involved various roles/responsibilities and potential treatments for the patient. Each group shared with the larger group their conclusions about care. Most recently, senior nursing students participated in a 16-week interprofessional patient care clinic with members of the School of Medicine, pharmacy, nutrition, and social work.

## Conclusion

The 2023 Hospital National Patient Safety Goals<sup>4</sup> echoed earlier calls for action by the Institute of Medicine<sup>16</sup> and World Health Organization<sup>19</sup> to improve the status of healthcare in our communities by improving communication among its members. The Interprofessional Education Collaborative (IPEC) throughout the years, has provided a roadmap to developing curriculum to address this call by setting core competencies for educating students across all healthcare disciplines.<sup>1</sup> From future doctors to nurses, from various therapies to social workers, providing opportunities for students to learn about each other's roles in patient care and practice communicating more effectively may break down any barriers that could exist later in practice. By bringing students together to learn with actual patients, simulated activities, case studies, or improvisation, pre-licensure nurse educators provide ways to address future roadblocks in future practice to optimize patient care.

## Conflict of Interest Statement

The three authors, Debra Penrod, Kelli Whittington, and Erica Blumenstock declare no conflicts of interest in conducting any research related to this manuscript or the writing of this manuscript.

## **Funding Statement**

The three authors, Debra Penrod, Kelli Whittington, and Erica Blumenstock declare no funding was attached to the research or writing of this manuscript.

## **Acknowledgements**

The authors of this manuscript wish to thank the faculty in the Occupational Therapy, Physical Therapy, Communication Disorders and Sciences,

and Social Work departments for their continued support of interprofessional education with nursing students at Southern Illinois University Carbondale. We also wish to thank the SIUC School of Medicine for inviting our nursing students to learn collaboratively as well. We hope to build a strong team of healthcare professionals in our region through our combined efforts.

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