

Integration of the Saline Process on Holistic Patient Care to Improve Student Understanding of Interprofessional Team Roles, Values, and Ethics

Emily M. Laswell, PharmD, BCPS¹; Emily Wicker, BSPS¹; Carrie N. Keib, PhD, RN²; Felisha Younkin, PhD, IMFT³; Elizabeth Sled, PhD, MS, BScPT⁴; Kristi Coe, MS, MLIS, RN²; Suzanne Lefever, MSN, RN, CRNP²; Aleda M. H. Chen, PharmD, PhD, FAPhA¹

¹Cedarville University School of Pharmacy; ²Cedarville University School of Nursing; ³Cedarville University Department of Psychology;

⁴Cedarville University Department of Kinesiology and Allied Health

ABSTRACT

Description of the Problem: Healthcare practitioner students currently report feeling underprepared to provide holistic and spiritual care to their patients upon transitioning into practice, and there is currently little data on the efficacy of holistic care-focused interventions on interprofessional outcomes. The goal of this research was to assess the impact of an interprofessional training session on holistic care on student perceptions of interprofessional 1) roles/responsibilities and 2) values/ethics.

The Innovation: A live, interactive interprofessional training session to address holistic patient care was implemented in fall of 2017. Students' pre- and post-training perceptions of their confidence in study outcomes were assessed using a survey instrument.

Critical Analysis: Significant positive changes were seen in students' perceived ability to participate in team discussions and clarify misconceptions regarding their role in healthcare following the training. Students had high confidence in interacting ethically at pre-test and sustained that confidence.

Next Steps: Live, interactive educational interventions with skills practice and group discussions can help to increase students' awareness of team roles and responsibilities, as well as expand their understanding of the values and ethics within healthcare professions.

Keywords: interprofessional education; holistic patient care; student perceptions; team roles; values and ethics

Description of the Problem

Interprofessional education (IPE) is strongly encouraged or required by accrediting bodies. The Accreditation Council for Pharmacy Education,¹ the Commission on Collegiate Nursing Education,² and the American Psychological Association's Commission on Accreditation³ all have interprofessional requirements within their accreditation standards. The Interprofessional Education Collaborative (IPEC) competencies outline important elements to include in interprofessional education.⁴ Core competencies include: values/ethics, roles/responsibilities, interprofessional communication, and teams/teamwork.

Institutions should prepare students to provide holistic care, treating the whole patient not only the disease-related needs. By educating students about holistic care, healthcare schools may better prepare students for practice and encourage care for the whole patient. For this reason, an interprofessional training session that included both IPEC competencies and holistic care was chosen. The objective of this study was to assess the impact of an interprofessional educational intervention focused on holistic care on students' confidence in team 1) roles and responsibilities and 2) values and ethics.

Corresponding author: Emily M. Laswell, PharmD, BCPS
Cedarville University School of Pharmacy
251 N. Main St., Cedarville, OH 45314
Phone: 937-766-7459; Fax: 937-766-4110
Email: emlaswell@cedarville.edu

Statement of Innovation

The Saline Process is a focused educational intervention that was developed by IHS Global and designed to give healthcare professionals specific tools to address the holistic needs of patients in a clinical setting.⁵ The Saline Process was taught by a group of interprofessional faculty (pharmacy, nursing, psychology, and allied health) who were trained by IHS Global as Saline Process trainers. All modifications to the materials provided by IHS Global were approved by the organization. IPE videos, supplemental material development, and pre-work module construction were time intensive and were completed over several months during the summer by the interprofessional faculty team.

In addition to its focus on holistic care, this intervention provided an opportunity to foster IPE by addressing the domains of roles and responsibilities and teams and teamwork, although it had previously not been used as part of interprofessional education efforts.

Description of the Intervention

The original training was expanded to be inclusive of the roles and responsibilities of different healthcare professionals. Overall, 109 students participated. A majority of the students were female (86%) with students ranging from 18-32 years of age. Participants were nursing students (n=62, 57%), pharmacy students (n=24, 22%), and psychology students (n=20, 18.3%). Nursing students were in their junior year, psychology undergraduate students were from various years, and pharmacy students were in their second professional year.

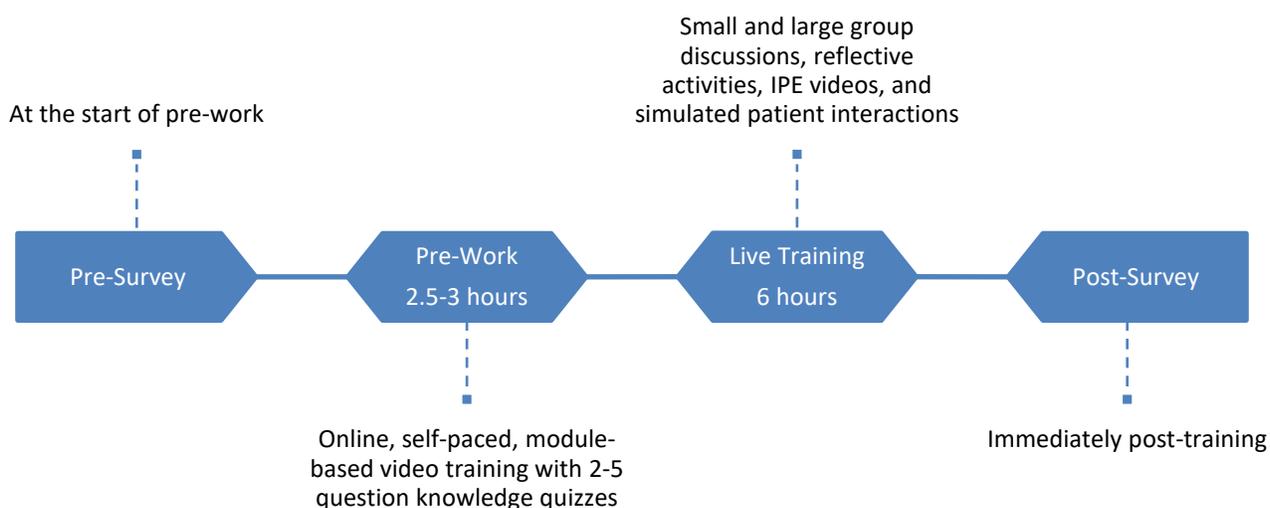
While students had been taught about holistic care and the importance of addressing it in the patient care context, this was the first time students would have had an extensive and systematic integration of the content. Institutional Review Board (IRB) approval was received from Cedarville University.

The training session was divided into two components: an online pre-work component followed by a live training session designed to reinforce the material learned in the pre-work session and provide opportunity for in-person interaction with other health professions students (Figure 1). The training included the Saline Process, which was adapted with permission from IHS Global for use in the academic setting, as well as a series of six, three-minute IPE videos developed by Cedarville faculty designed to increase understanding of roles and responsibilities of each of the healthcare professions involved. The Saline Process was chosen for its alignment with the University mission and vision and focus on holistic care. It addresses five main questions: 1) Why is faith important in healthcare? 2) What are the opportunities and barriers? 3) What is my part? 4) What tools can I use? and 5) Where do I go from here? The importance of holistic care and its influence on patient outcomes was emphasized by the trainers through a presentation of the evidence supporting this relationship. Intervention materials were provided by IHS Global and can be accessed by those who have been trained in the process. Students were expected to show proof of completion of the pre-work prior to entrance to the live training session. Participants were assigned to one of four breakout rooms each limited to 50 students with the goal of maximizing student

participation in large group activities. Students were then assigned to interprofessional tables in groups of seven to eight students. While not all professions were represented at all tables due to recruitment and class size differences, each table consisted of at least one pharmacy student, one nursing student, and one other health professional student.

The live training session addressed taking an effective spiritual history using the FICA⁶ and HOPE⁷ methods, as well as respectful and appropriate ways to address faith concerns within clinical settings. Active learning strategies included small and large group discussions, simulated patient interactions, and reflective activities. Approximately 5-10 minutes was allotted for each of the group discussions or reflective activities. Simulated patient encounters were conducted using a live actor to play the role as the patient, with one or more students asking questions of the patient that they would expect to ask during a real patient encounter, with the intent of practicing skills learned in the training. Simulated patient encounters were each given approximately 10 minutes each. The faculty-developed IPE Videos followed the healthcare journey of a mock patient to simulate his interactions with various professionals following a motorcycle accident. After each video, participants were asked to identify various roles and responsibilities of each health professional depicted. Values and ethics were incorporated using small and large group discussions regarding the appropriateness of discussing faith in healthcare, as well as respecting institutional policies that prohibit personal faith discussions with patients.

Figure 1. The Intervention



Participants completed the survey items at the beginning and end (pre-post) of the holistic care training session. Given that an existing survey specific to holistic care, student confidence in team roles and responsibilities, values and ethics was not available, the authors developed the questions used by consulting Bandura's Social Cognitive Theory, the Saline Process materials developed by IHS Global, the IPEC 2016 Core Competencies for Interprofessional Collaborative Practice, and learning outcomes for the holistic care training session. Bandura's Social Cognitive theory was used as a general frame of reference for the questions to think through how the development of confidence, or self-efficacy, is a motivator for student competence.⁸ While the questions were not directly written from the theory, it was used a method of reflection and reference. The key factors in the creation of the survey were the IPEC Competencies and the learning outcomes. A team of interprofessional faculty and IHS Global staff reviewed the instrument to establish face and content validity. The survey contained six demographic items, seven pre-post survey items and three post-survey items to assess changes in

students' confidence in team roles and responsibilities and values and ethics. The pre-post and post survey items used a 5-point Likert scale response format to assess the level of agreement with each statement. Internal consistency for the survey (not including the demographic items), as measured by Cronbach's alpha, was 0.876.

All data were entered into Excel® (Microsoft, Redmond, WA) and then imported into SPSS v. 25.0 (IBM, Armonk, NY) for data analysis. A *p*-value of 0.05 was considered statistically significant. Data were checked for normal distribution using the Shapiro-Wilk test and were not normally distributed. In addition to descriptive statistics for all variables, Wilcoxon tests compared differences between pre-assessment and post-assessment.

Positive changes were seen in perceptions about interacting with teams and in students' perceptions of team roles and responsibilities (Table 1). Perceptions of team values and ethics were already high at baseline and were sustained.

Table 1. Changes in Student Agreement with Team Perceptions Items

Item	IPEC ^a Mapping	Pre-Survey Median (IQR)	Post-Survey Median (IQR)	p-value ^e
1. I am able to share and exchange ideas in a group discussion. ^b	TT ^f	4 (3-4)	4 (4-5)	<.001
2. I feel comfortable in speaking out within the team when others are not keeping the best interest of the patient in mind. ^b	TT	4 (3-4)	4 (3-4.75)	.010
3. I feel comfortable in clarifying misconceptions with other members of the team about the role of someone in my profession. ^b	RR ^g	4 (3-4)	4 (3-5)	<.001
4. I can act ethically in relationships with patients and families. ^b	VE ^h	5 (4-5)	5 (4-5)	.462
5. I can act ethically in relationships with other healthcare team members. ^b	VE	5 (4-5)	5 (4-5)	.128
6. Learning with other students helps me become a more effective member of a healthcare team. ^c	TT	4 (4-5)	4 (4-5)	.045
7. Interprofessional healthcare team training helps me become a more effective member of a healthcare team. ^c	TT	4 (4-5)	4 (4-5)	.096
8. I have gained an enhanced awareness of roles of other professionals on a team. ^{c,d}	RR	---	4 (4-5)	---
9. I have gained an enhanced awareness of my own role on a team. ^{c,d}	RR	---	4 (4-5)	---
10. I have gained an enhanced understanding of values and ethics that are important in interprofessional care. ^{c,d}	VE	---	4 (4-5)	---

^aInterprofessional Education Collaborative

^b5-point Likert Scale: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Always

^c5-point Likert Scale: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree

^dPost-test only

^eA Wilcoxon test was used for comparison, since the data were not normally distributed.

^fTeams and Teamwork

^gRoles/Responsibilities

^hValues/Ethics

Critical Analysis

This innovative intervention assessed the impact of an interprofessional educational intervention focused on holistic care on students' confidence in team 1) roles and responsibilities and 2) values and ethics. The Saline Process educational intervention provided participants with training in holistic care and emphasized the importance of sensitive and respectful spiritual assessment as a standard and shared value in holistic patient care.

In this study, participants showed significant positive changes in questions 1, 2, 3, and 6 following the training, while other questions did not change as a result of the training (i.e. acting ethically with healthcare team members). These findings could indicate that interprofessional education may benefit participants by sharpening their understanding of their own profession and how their role and responsibilities relates to other professional roles and responsibilities, while confidence in contributing effectively to an interprofessional healthcare team may take longer to develop.

This study has a few limitations. This study was conducted at a single center, faith-based institution, limiting generalizability. In addition, representation from the various health-professions was not evenly distributed, and representation at individual tables varied due to disparate numbers in profession class sizes.

Another limitation is the participants' level of training at the time of assessment. Students early in their training may not have enough exposure to professionals in various fields to know what efficacy in interprofessional teams looks like. Finally, the surveys had limited validity evidence, and future research should evaluate the psychometric properties of the instruments.

Next Steps

A holistic care-focused IPE activity provided opportunities for this institution to meet accreditation requirements, while also increasing exploration of holistic care. This event continues annually at our institution because it has been well received. Future interprofessional education research should consider the value of including a holistic aspect, as this is not commonly an area of focus in IPE. Additionally, the Saline Process, when completed in a multidisciplinary group, can help to increase student awareness of team roles and responsibilities, as well as expand their understanding of the values and ethics within healthcare professions. Future efforts may consider focusing on the efficacy of different types of interventions embedded within a health science curriculum. In addition, intentional follow-up sessions with students may facilitate interprofessional communication and teamwork. In the School of Pharmacy, students receive an annual refresher related to this training, as well as deliberate reinforcement of concepts in several modules throughout the curriculum. IPE also is fully integrated in the program, with over 14 disciplines, broad IPEC

coverage, and multiple IPE events annually. Further evaluation of this integration is warranted.

Funding: This work was supported by an internal grant from Cedarville University School of Pharmacy. The funding source had no role in the study development or completion.

Conflicts of Interest: None

REFERENCES

1. Accreditation Council for Pharmacy Education. Guidance for the Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree ("Guidance for Standards 2016"). Published February 2015. Available at: <https://www.acpe-accredit.org/pdf/GuidanceforStandards2016FINAL.pdf>. Accessed October 14, 2020.
2. American Association of Colleges of Nursing. *The Essentials of Baccalaureate Education for Professional Nursing Practice*. Published 2008. <https://www.aacnursing.org/portals/42/publications/bacc essentials08.pdf>. Accessed October 14, 2020.
3. Commission on the Accreditation of American Psychological Association. Standards of accreditation for health service psychology and accreditation operating procedures. Published 2018. <https://www.apa.org/ed/accreditation/about/policies/standards-of-accreditation.pdf>. Accessed October 14, 2020.
4. Interprofessional Education Collaborative. Core Competencies for Interprofessional Collaborative Practice. 2016 update. <https://www.ipecollaborative.org/core-competencies.html>. Accessed October 14, 2020.
5. IHS Global. The SALINE Process. Published 2019. <https://www.ihsglobal.org/board-of-reference>. Accessed October 8, 2020.
6. Vermandere M, Choi YN, Brabandere HD, et al. GP's views concerning spirituality and the use of the FICA tool in palliative care in Flanders: a qualitative study. *Br J Gen Pract*. 2012;62(603):e718-e725. doi: 10.3399/bjgp12X656865.
7. Anandarajah G, Hight E. Spirituality and medical practice: using the HOPE questions as a practical tool for spiritual assessment. *Am Fam Physician*. 2001;63(1):81-89.
8. Bandura, A. Self-efficacy: toward a unifying theory of behavioral change. *Psychol Rev*. 1977;84(2):191-215. doi: 10.1037/0033-295X.84.2.191.