

Comparing the Efficacy of Interprofessional versus Single Profession Teams in Promoting Quality Conversations About Advance Care Planning

Sabina Kupersmidt PhD *Department of Nursing & School of Health Sciences, University of South Dakota*

Helene Hegge MSN, RN *Department of Nursing, University of South Dakota*

Haifa AbouSamra PhD, MSIM, RN-NIC-CNL *Department of Nursing, University of South Dakota*

Cheryl Fischbach DNP, MSN, RN *Department of Nursing, University of South Dakota*

Carla Dieter EdD, RN *Department of Nursing, University of South Dakota*

Whitney Lucas-Molitor PhD, OTD *Occupational Therapy Department, University of South Dakota*

Abstract

PURPOSE The study compared the impact of educating learners in interprofessional versus single profession teams using the Respecting Choices First Steps® Advance Care Planning training method.

METHODS Learners in an academic program were grouped into either interprofessional or single profession teams and participated separately in Respecting Choices® Facilitator training. A PICOT question was formulated: In ACP facilitators and their clients what is the effect of an ACP educational initiative on attitudes, knowledge and behaviors when the initiative is delivered by an interprofessional compared to a single profession team of learners during a year-long pilot study?

RESULTS 1. Confidence in the subject matter increased in ACP facilitators pre- to post test. 2. Interprofessional knowledge and attitudes were not different in the two teams. 3. Clients attending ACP workshops improved their scores pre- to post workshop but no difference was observed between clients of the interprofessional and the single profession team.

CONCLUSION Preliminary steps beyond grouping learners into teams consisting of multiple professions will be required to impact their effectiveness over a single profession team.

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Implications for Interprofessional Practice

- Palliative care, which includes Advance Care Planning (ACP), is a discipline that is highly depended on interprofessional teamwork. This study compared outcomes of ACP Facilitator training conducted with inter- and single-professional teams of students.
- The findings showed no significant differences between inter- and single-professional teams with regard to effects of 1) the training on the ACP facilitators, 2) interprofessional attitudes and knowledge or 3) client outcomes.
- Important conclusions are that there are no intrinsic differences between teams of learners consisting of multiple disciplines and those consisting of a single discipline.
- To enable interprofessional learning, we recommend creating a shared mental model about proficient teamwork, prior to implementing interprofessional learning activities.

Introduction

Background

The origins of this project began with a “work plan” submitted in 2017 to the National Center for Interprofessional Practice and Education (Nexus, 2021). The project was developed in collaboration with multiple professions at a public academic institution in a Great Plains state, and in partnership with the state’s major health care systems and community providers that included long term care facilities, wellness facilities and other non-profits. The title of the work plan was *Promoting Quality Conversations about Advance Care Planning in South Dakota through Interprofessional Teams*. A preliminary description of the work done by this statewide coalition has been published (Kupershmidt et al., 2020).

Advance Care Planning (ACP) is a key component of the broader field of palliative care that is dependent upon interprofessional teams of care givers (Gurley, Roberson, York, & Childress, 2021). The process of ACP encompasses a series of conversations that address the difficult and complex topic of death and dying. A thoughtful ACP process matches a patient’s goals with individualized medical management and treatment options and offers collaborative solutions between patients, families and interprofessional care providers (Levoy, Tarbi, & De Santis, 2020). For example, patients may experience multiple transitions from nursing home to emergency services and then to intensive care, which make

interactive discussions between providers and patients difficult. If these difficulties are not resolved through interprofessional teamwork, it may lead to patient dissatisfaction and contribute to rising health care costs by prolonging transitions to more appropriate care environments (Buness, Compton, Press, & Peternelj-Taylor, 2021). Regulatory agencies and professional societies have recommended interprofessional approaches to bridge fragmentation, improve communication between disciplines and to achieve integrated health outcomes.

The World Health Organization WHO defines interprofessional education as “when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (Gilbert, Yan, & Hoffman, 2010, p. 196). To better prepare future providers for collaborative, patient-centered care, academic programs now incorporate interprofessional competencies within their accreditation standards. The Health Professions Accreditors Collaborative, composed of 24 professional accreditation programs, issued joint guidelines regarding the development of quality IPE (Health Professions Accreditors Collaborative, 2019). A report produced by the National Collaborative for Improving the Clinical Learning Environment (NCICLE) in 2019 recommends the integration of interprofessional education of pre-professional learners and practicing clinicians along a continuum with health care consumers (Weiss, Passiment, Riordan, & Wagner, 2020).

Gap in Knowledge

Despite this general trend towards IPE and practice, relatively little is known about the key elements of Interprofessional Learning (IPL) or its impact on the practice environment (Guraya & Barr, 2018). Calls have been made for investigating the connections between IPL and practice (Rogers et al., 2017) and this study is taking first steps in that direction. In this report, an interprofessional and a single profession team of learners practiced their ACP skills in front of ‘clients’ at a goal-oriented workshop. Outcomes were compared between the teams in learners, as well as in their clients.

Objectives

This report describes an education initiative that introduces an evidence-based ACP method to students in a School of Health Sciences (SHS) at a public university of a Great Plains state. Respecting Choices® (RC) provides a standardized curriculum for ACP that has been validated in the U.S. and around the world (Korfage et al, 2020, Zwakman et al. 2018, 2020). It is important to note, however, that the primary research question in this study was not to determine ACP-related outcomes, but rather to investigate the impact of educating learners in interprofessional versus single profession teams. A PICOT question was framed: In a campus population and in ACP facilitators (P) what is the effect of an ACP educational initiative (I) on attitudes, knowledge and behaviors (O) when the initiative is delivered by teams of interprofessional students compared to teams of single-profession students (C) during a year-long pilot study (T). The underlying rationale for the PICOT question was that interprofessional teams will lead to a more coordinated approach and improved client outcomes.

Students were grouped into two teams, either Single Profession (SP) or Interprofessional (IP) using convenience sampling and were instructed to become First Steps® ACP facilitators according to the RC method. All students were taught to facilitate and initiate ACP conversations by a certified Instructor to ensure that the preferences of the patients are identified, respected and ultimately honored. The impact of the educational intervention was evaluated in a quasi-experimental study in three different categories:

1. Following First Steps training, changes in self-

reported level of confidence in the ACP subject matter was measured in new facilitators;

2. Attitudes that relate to the core competencies for Interprofessional Collaborative Practice and IPL were measured in both teams;
3. Changes in ACP-related knowledge, attitudes, perceptions and intentions in clients at ACP workshops.

The null hypothesis in all three categories was that there would be no difference in outcomes between students educated as interprofessional teams versus students who are educated in single profession teams. Note that the null hypothesis remains the same whether outcomes were measured in the facilitators/students (categories 1 & 2) or in their clients (category 3).

Methods

Study Population

Students and faculty received training in ACP methodologies according to the evidence-based RC model, a standard of care that has been proven effective and successful in other states and countries (MacKenzie, Smith-Howell, Bomba, & Meghani, 2018). Two nursing faculty members had been certified as RC First Steps® Instructors and were in a position to amplify the effects of their training by teaching others to become First Steps® ACP Facilitators.

To enable comparisons between the interprofessional and single-profession teams, a convenience sample of learners were divided into two comparison groups and educated separately. One team was interprofessional, composed of medical students (MD), Nursing (NURS), Occupational Therapy (OT), Physical Therapy (PT), and Social Work (SOCW), while the second team (SP) was composed of a single profession (NURS only).

Intervention

Learners were provided access to the online portion of the First Steps® training through a web link, sent out by e-mail. This included interactive courses to teach basic ACP concepts (2- 3 hours). ACP interview skills taught in the online course are designed to help students prepare for the role-play exercises. Following the online training, learners attended a 7 to 8-hour classroom lesson. During class time, learners practiced facilitation skills in role-play exercises to demonstrate competen-

cy in these skills. The purpose of facilitator training is to assist participants in learning effective communication and conversation skills for person-centered ACP. It enables facilitators to work as a team with the ability to hand off ACP referrals and to ensure consistent and uniform ACP service. As part of the classroom experience, learners completed a practice Advance Directive document, and survey tools handed out as part of the course. The RC First Steps training was provided at no cost to the student. The training occurred during the spring and fall semesters of 2017.

Upon completion of the training, students were certified as First Steps® ACP Facilitators and were committed to present a practice ACP “workshop” to a target audience (clients). The learners presented these workshops in pre-assigned groups using materials, scripts and audiovisual tools provided by the course. At the workshops, facilitators motivated and guided clients toward end-of-life medical decisions.

Research Design

The study design was prospective, quasi-experimental, non-equivalent groups design (between subjects factor) with repeated measures (time, pre- post testing, within subjects factor). The comparison groups were an Interprofessional (IP) and a single profession (SP) team of ACP First Steps® Facilitators.

Outcomes and Measures

Three primary outcomes were assessed using pre- and post-surveys. First, to rate the effectiveness of the First Steps® ACP Facilitator Training, the *Facilitator Self-Assessment Scale* (FSAS) was used. The FSAS was self-designed and graded on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). A higher score would indicate better understanding of the subject matter.

The survey evaluates facilitator self-perceptions about knowledge, skills and abilities related to ACP. The survey consists of 4 separate items: (1) I am able to assess the needs of the individual seeking ACP assistance. (2) I have enough knowledge about the role and responsibility of healthcare professionals to develop a person-centered approach to ACP based on an individual’s illness. (3) I am able to educate others on available ACP resources. (4) I am able to develop strategies to effectively communicate an individual’s plan that honors his or her goals, values, and beliefs.

Two, change in interprofessional knowledge and attitudes about interprofessional learning was assessed using the 27-item *Interprofessional Attitudes Scale* (IPAS) (King & Violato, 2021). This tool was chosen because it incorporates the 4 domains identified by the 2016 IPEC Core Competencies for Interprofessional Collaborative Practice (IPEC, 2016). Subscales included are: (1) teamwork, roles and responsibilities, (2) patient-centeredness, (3) interprofessional biases, (4) diversity and ethics, and (5) community centeredness. It was chosen after consultation between the authors and experts at the USD Interprofessional Health Education Center (IHEC). The format is a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The IPAS (King & Violato, 2021) was administered to learners before and after the RC First Steps ACP Facilitator training course.

Three, the *Evaluating Knowledge About Advance Care Planning* (EKAP) survey contains four items adopted from the RC learning materials. This 4-item scale was given to attendees of the ACP workshop taught by the First Steps® ACP facilitators, prior to workshop attendance (pre-test) and one to three weeks later (post-test). The items are: 1. I am able to talk to loved ones about my goals, values, and beliefs-including future healthcare preferences. 2. I have enough knowledge about the role and responsibility of my healthcare decision maker (healthcare agent), in the event that I’m unable to make decisions for myself. 3. It is important to have a conversation with my agent and other loved ones about my goals, values, and beliefs-including future healthcare preferences. 4. I am likely to have a conversation with my agent and other loved ones about my goals, values, and beliefs-including future healthcare preferences. The format is a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree) with a higher score indicating better understanding. In order to determine the internal consistency of the self-designed 4-item EKAP the Cronbach’s alpha value was obtained first in a pilot trial that included 21 participants; the value was 0.83.

Statistical Methods

Two-sample paired t-test for dependent samples was used to examine differences between groups with more than one variable. Mixed design analysis (split plot) ANOVA with two between subjects’ factors (SP and IP) and two within subjects factors was performed us-

ing IBM®SPSS® v 27 and assumptions for normality were tested. Non-parametric testing, Kruskal-Wallis H, followed by Mann-Whitney U test was completed when assumptions for normality were not met. An alpha level of .05 was used for all statistical tests. Cohen's d was calculated using the formula $(M_2 - M_1)/SD_{pooled}$, where M are the means and SD are the standard deviations.

Ethical Considerations

IRB approval for research activities involving human subjects was obtained prior to the start of the study (USD IRB protocol number 2016.042). The USD Office of Human Subjects Protection is fully accredited by the AAHRPP. All research personnel had CITI training.

Results

1. Confidence in the ACP subject matter reported by First Steps® ACP facilitators

To evaluate self-perceptions of knowledge, skills and abilities gained at the ACP Facilitator training, learners were separated into SP and IP teams and were edu-

cated as RC First Steps® Facilitators. The FSAS was administered to 49 participants before and after training. Twenty were in the IP team. Table 1A and B shows the breakdown into teams and demographics. Learners were asked to complete a questionnaire consisting of 4 items. The null hypotheses tested was: There is no difference between pre- and post-test scores. Table 1 shows that scores changed significantly ($P \leq 0.001$, t-test) from pre- to post-training for both SP and IP teams, which led to a rejection of the null hypothesis.

At the individual level, scores increased from pre- to post testing in the SP team from 3.9 ± 1.1 to 5.6 ± 1.0 and in the IP team from 4.1 ± 1.0 to 5.65 ± 0.6 team ($P < 0.001$, t-test).

2. Knowledge and Attitudes about Interprofessional learning

In order to compare knowledge and attitudes about IPL, the IPAS scale was given in hardcopy format before and after First Steps ACP Facilitator training. Data were manually entered into an Excel spreadsheet and imported into SPSS. Table 2 shows the results for the

Variable	n	M	SD	95 % CI for mean		P	Cohen's d	Cronbach's α
				lower	upper			
SP								
pre	29	15.59	4.0	14.07	17.10	< .001	4.1	0.90
post	25	35.40	9.5	31.47	39.33			0.98
IP								
pre	19	16.37	3.6	14.61	18.12	<.001	3.1	0.9
post	20	22.60	1.8	21.74	23.46			0.8

Table 1A. FSAS survey results. Aggregate scores.

Note: statistical analysis Mann-Whitney U, ** p < .001 within group (pre and post) variables.

Team	Professions	female	Male	Age
SP	Nursing	24	5	22 < 30 4 = 30 - 39 2 = 40 - 49
IP	Nursing (5) SOCW (6) OT (3) PT (2) PA (3) MD (1)	17	3	18 < 30 2 = 30 - 39

Table 1B. Demographics

composite IPAS scale (27 items) and its 5 individual subscales. At the individual level, the highest scores for both SP and IP teams were recorded on the 5-item Patient Centeredness (PC) and 4-item Diversity and Ethics (D&E) subscales. For the PC scale, from pre- to post-test scores, the means changed from 4.7 ± 0.42 to 4.8 ± 0.40 in the SP team, and from 4.9 ± 0.3 to 4.8 ± 0.4 in the IP team. For the D&E subscale, means changed from

4.56 ± 0.91 to 4.9 ± 0.28 in the SP team and from 4.83 ± 0.4 to 4.6 ± 0.91 in the IP team. Similarly, the lowest scores for both teams were scored on the 3-item IP Biases subscale. Going from pre- to post-test scores, for the IP Biases subscale, the means changed from 3.35 ± 1.1 to 3.28 ± 1.28 in the SP team, and from 3.6 ± 0.9 to 3.35 ± 1.1 in the IP team.

Team	n	mean	SD	CI for mean		Chi square	Cronbach's α (# items)
				lower	upper		
Pre all						.656	
SP	21	115	9.5	111	119		
IP	16	117	8.8	112	121		
Post all						.251	
SP	23	120	7.2	116	122		
IP	21	116	9.8	111	120		
Pre TR						.485	
SP	21	37	3.7	36	39		0.825 (9)
IP	16	36	3.7	34	38		0.801 (9)
Post TR						.569	
SP	23	38	2.8	37	40		
IP	21	38	3.8	36	39		
Pre PC						.385	
SP	21	24	1.7	23	25		0.875 (5)
IP	16	25	0.9	24	25		0.565 (4)
Post PC						.610	
SP	23	24	1.5	23	25		
IP	21	24	1.7	23	25		
Pre IB						.221	
SP	21	10	1.6	9	11		0.026 (3)
IP	16	11	1.8	10	11		0.386 (3)
Post IP						.886	
SP	23	10	2.4	9	11		
IP	21	10	1.6	9	11		
Pre D&E						.276	
SP	21	18	3.5	17	20		0.825 (4)
IP	16	19	1.3	19	20		0.825 (4)
Post D&E						.009*	
SP	23	20	1.0	19	20		
IP	20	18	3.6	16	20		
Pre CC						.827	
SP	21	26	5.1	24	28		0.974 (6)
IP	16	26	3.5	24	28		0.922 (6)
Post CC						.298	
SP	23	28	2.6	26	29		
IP	21	27	5.1	24	28		

Table 2. IPAS results

Note: For chi square values, the grouping variable is SP and IP.

A Kruskal-Wallis H test was conducted to compare SG and IP groups in pre- and post-test scores. The test showed no significance between the levels of the independent variables in any of the IPAS subscales except in the DE subscale (Table 1). For the D&E subscale, there was a significant difference between SP and IP with $X^2(1, N = 37) = 6.730, p = .009$ in the mean post D&E scores.

3. Changes in knowledge measured in workshop clients - EKAP

After the training event, First Steps® Facilitators, were committed to conduct a simulated ACP workshop that would allow them to test their new skills in a practice

setting. At the workshop, the Facilitators made use of visual aids and teaching tools to promote ACP concepts provided by Respecting Choices®. Changes in ACP-related knowledge, attitudes, perceptions and intentions in learners or attendees of ACP workshops was measured using the *Evaluating Knowledge About Advance Care Planning* (EKAP) questionnaire. While some of the workshops conducted were held in area clinics, hospitals, community centers, churches and nursing homes, the program received “client” feedback only from workshops conducted for students on campus. Thus, all of the EKAP data were collected from undergraduate students in the pre-nursing program. The demographics for the respondents is shown in Table 3B.

	n	mean	SD	factor	95 % CI of the Difference		α
					Lower	Upper	
Pre (SP+IP)	47	20.5	3.1				
Post (SP+IP)	47	21.7	2.7	SP - IP	-2.3	-0.087	.036
Pre							
SP	15	20.0	2.5	pre-post	-2.86	1.00	.343
IP	32	20.8	3.4				
Post							
SP	15	20.8	3.0	pre-post	-2.86	0.115	.116
IP	32	22.2	2.6				

Table 3A. EKAP evaluation

Note: paired t-test, two tailed; one-way ANOVA

Team (n)	female	Male	< 30 yo
SP			
Pre (16)	10	6	16
Post (15)	10	5	15
IP			
Pre (32)	29	3	32
Post (32)	29	3	32

Table 3B. EKAP evaluation

In order to determine the internal consistency of the self-designed 4-item EKAP the Cronbach's alpha value was obtained first in a pilot trial that included 21 participants; the value was 0.83. To determine differences in within-subjects variables, a paired t-test was run for the combined pre-to post scores submitted by clients at the workshop. The results showed an improvement in combined scores from pre- to post ($p < 0.05$, Table 3A). One-way ANOVA was used to determine differences in between-subjects variables (the differences between the teams); however, no differences were identified between the IP and SP teams.

Discussion

Interprofessional education is widely regarded as necessary to develop a collaborative practice-ready workforce. Due to the growing recognition of the role of interprofessionalism in public health in general and in palliative care in particular, academic educators who found themselves at the helm of a statewide coalition to implement quality Advance Care Planning (ACP), decided to integrate elements of Interprofessional education and practice. The intervention was planned as an interprofessional collaboration between the departments of Physical Therapy, Occupational Therapy, Health Sciences, Physician Assistant Studies, Nursing and School of Medicine at USD. The practice environment in which conversations about ACP occur, was simulated by the workshops where First Steps® Facilitators practiced their skills in front of a live audience.

This report focuses on the results of a quasi-experimental study that was performed within the context of a statewide ACP coalition. The coalition of partners uses an evidence-based ACP framework according to the First Steps Respecting Choices® model to promote quality conversations at the end-of-life. In this model, ACP occurs at two levels: the highest level is the instructor. The role of the instructors is to train facilitators who then conduct community outreach by providing ACP education in community workshops. With this approach, the pipeline of skilled personnel grows and becomes self-sustaining as facilitators transmit their acquired skills and knowledge to the broader community, amplifying the effects of training. The coalition understands ACP to be a multi-step process that may change over the lifespan and is supported by interprofessional care teams in direct dialog with the community. A preliminary description of this statewide coal-

ition has been published (Kupersmidt et al., 2020) and provides additional context. The statewide coalition has now broadened its goals to palliative care.

Key Results

The impact of the educational intervention on interprofessional teams and on learning in the ACP facilitators and their clients was measured. Learning and knowledge was assessed both in the First Steps® ACP facilitators and in the clients of the facilitators. The rationale was that highly functioning, interprofessional teams would lead to a more coordinated, patient-centered approach and improved outcomes for both learners and clients. Although interprofessional education and collaborative practice are related, it was unclear how collaborative practice manifests when previously separate learners are put to work in teams (Lutfiyya et al, 2016).

Interprofessional Education (IPE) and Learning (IPL) has been shown to be most effective when it incorporates principles of adult learning, when students interact with others outside their immediate profession and when they engage in collaborative activities (Guraya & Barr, 2018; Weiss et al., 2020). These principles were operationalized when learners were asked to put skills they acquired in the RC First Steps® facilitator training to the test in a workshop. In the workshops, newly trained ACP facilitators applied the principles they had learned during RC training to an unexperienced target audience consisting of fellow college students.

At the start of the program, learners were divided into either interprofessional or single profession teams and three separate outcomes of the educational intervention were measured and compared between the two groups: 1- levels confidence in the ACP subject matter in ACP Facilitators; 2 -Interprofessional knowledge and changed attitudes about interprofessional learning (IPL); 3-improved ACP-related knowledge, attitudes, perceptions and behaviors in clients of the ACP facilitators.

Learners in the First Steps Facilitator course were asked to complete a questionnaire consisting of four items, called the FSAS. Table 1A shows that scores, rated on a Likert scale, improved significantly from pre- to post training. The results of the FSAS questionnaire showed that learners perceived an improvement in their ACP knowledge, skills, and abilities following the First Steps® training. This was seen in learners of

both the SP and the IP teams, allowing the conclusion that the training was effective, leading to a better understanding in both teams.

When interprofessional attitudes and knowledge about interprofessional learning were assessed through the IPAS scale, no significant differences were noted in four of the dimensions measured: Teamwork Roles and Responsibilities, Patient Centeredness, Interprofessional Biases, and Community Centeredness. There was, however, a difference in the Diversity and Ethics subscale, where the SP team showed significantly higher scores pre- and post ($p < 0.05$, Table 2). This may be explained by the fact that the SP team is composed of nursing students only who receive instruction through a concept-based curriculum that incorporates ethical comportment, clinical and organizational ethics in the 2nd semester of the BSN program.

It is worth noting that the IPAS scores were uniformly high. The average mean scores for the composite scale were 4.3 ± 1 and 4.4 ± 1 (pre to post) for the SP and 4.3 ± 0.9 and 4.3 ± 1 (pre to post) for the IP team on a 5-point scale. This may be due to the consistent emphasis placed on IPE and learning at the institution. The Interprofessional Health Education Center (IHEC), established by the governing board in 2017, serves all professions within the SHS, the School of Medicine and some from the College of Arts and Sciences. IHEC organizes Interprofessional student learning and faculty development activities including the campus-wide annual IPE Training Workshop and the Activities Day. This organization has introduced students to key concepts of interprofessional education and practice.

The lowest scores for both teams were observed in the IP Biases domain, which consisted of only 3 items. However, Cronbach's α was found to be low for this subscale, which may signal poor internal consistency (Table 2). On the whole, the results indicate that the teams are comparable in their attitudes and knowledge about interprofessional teams.

As a final step, the effects of attending an ACP workshop taught by either the SP or IP team was measured in clients. ACP-related knowledge, attitudes, perceptions and intentions were measured using the Evaluating Knowledge About Advance Care Planning (EKAP) survey. Again, the findings showed no significant difference between the SP and IP teams, although a significant improvement in scores was observed uniformly

from pre- to post-testing (Table 3A).

Interpretation

One of the strengths of our study is the factorial design, which assessed the main effects of three independent variables: 1- the self-reported effects of the First Steps training on the ACP Facilitators; 2 – interprofessional attitudes reported by the ACP facilitators; and 3- the effects of a simulated ACP workshop conducted by the facilitators on their clients. At the workshop or practice setting, the clients report on their own learning experience through the EKAP, thereby also reporting on the performance of the SP and IP teams.

Frequently, and especially at the undergraduate level, IPL focuses on competencies. If this is the case, developing learners' ability to deal with uncertainty and change, a skill that may be termed "capability" can be shortchanged. In addition, there is a fundamental difference between "multidisciplinary" and "interprofessional" teams. This conclusion has been reached by experts who have recommended that interprofessional learning should be measured on a continuum, designated the Interprofessional Learning continuum model (Cox, Cuff, Brandt, Reeves, & Zierler, 2016).

Our study established at the outset that the specific knowledge and attitudes did not differ between the SP and IP teams. This was despite the fact that the SP team was composed entirely of nursing (BSN, undergraduate) students while the IP team contained students who were in a graduate program. The educational intervention itself (First Steps® training) was effective and scores improved from pre to post testing. However, the hope was to also develop "capability" through mutual complementarity of the various professions in the IP team. Thus, the IP team was formed with the expectation that learning would be extended through adaptation of others' knowledge and that this would result in the generation of new ideas and improved performance. Nevertheless, the outcomes measured in clients at the workshop (the simulated practice setting) indicates that generating IP teams without providing requisite tools that enhance IP function does not offer advantages over single profession teams. The recommendation would be to create a shared mental model about proficient teamwork, through TeamSTEPPS training (AHRQ, 2021) at the outset, to improve team communication and team behaviors.

Limitations

The study was conducted in one region of the country and participants were recruited on a college campus. A convenience sample was enrolled and participants were not randomized into teams but were assigned based on their professions. This design was adopted because the study was subject to limitations imposed by the participants' other required curricular activities. In addition to didactic classroom work, students in the health sciences have to adhere to clinical schedules that makes coordination of interprofessional activities particularly challenging. The nursing faculty had received training as RC Instructors and were able to plan in advance. A preponderance of nursing students was part of the study population and this may have compromised generalizability. In the future, other professions will need to participate earlier in order to include a more diverse range of professions. In addition, ACP is particularly relevant to the aging population and this study included a majority of the participants who were less than 30 years old and overwhelmingly female, making it susceptible to sampling bias.

Conclusions

The effects placing learners into either an IP or SP team was assessed using a combination of approaches. The progress of learners as individuals was determined through the FSAS, their understanding of team function through the IPAS, and their performance in a simulated practice setting, the workshop, was measured through the EKAP (Table 3). The multifactorial design allowed for triangulation of the results. None of the measures used indicated that the SP or IP teams differed significantly. This led to the overall conclusion that, intrinsically, there is no difference between the two teams and that interprofessional learning requires steps that go beyond simply assembling teams that consist of multiple disciplines. One way to create a shared mental model regarding proficient team function would be to implement TeamSTEPPs training (AHRQ, 2021) for all ACP Facilitators. Most support. For instance, during the storming stage, groups may need additional support to facilitate communication and to clarify the roles and responsibilities of different group members, both of which have been highlighted as important competencies of interprofessional collaboration (Wood, Flavell, Vanstolk, Bainbridge, & Nasmith, 2009).

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Corresponding Author

Sabina Kupershmidt, PhD

Department of Nursing
414 E. Clark St.
Vermillion, SD 57069

Sabina.kupershmidt@usd.edu