

## A Safe Place: Using Clinical Supervision Groups to Build Interprofessional Collaborative Practice Skills

Melissa Copenhaver  
Ann Crandell-Williams

**Abstract:** *Interprofessional collaborative practice (ICP) is an essential skill in today's healthcare environment that can be cultivated through interprofessional education (IPE) in higher education, as students are in the process of developing their professional identities. Undergraduate social work field students and nursing students in clinical rotation explored their experiences together in clinical supervision groups co-led by instructors from both fields. Researchers used a mixed methods approach to measure changes in feelings and skills related to ICP among students who participated in clinical supervision groups. Eighteen nursing and social work students participated; those involved in the interprofessional clinical supervision groups performed better on the Interprofessional Socialization and Valuing Scale (ISVS) than the comparison group. Qualitative themes indicated that students enhanced their interprofessional knowledge; improved their interprofessional communication skills; and increased their comfort levels on an interprofessional team. Implications and suggestions for implementation are discussed.*

**Keywords:** *Interprofessional education, interprofessional collaborative practice, roles, teamwork, clinical supervision, professional identity*

In the ever-evolving field of healthcare, legislative initiatives like the Affordable Care Act and the Social Work Reinvestment Act present opportunities for scholars to explore innovative approaches to preparing future healthcare providers. The enhancement of interprofessional collaborative practice (ICP) among providers of varying disciplines has been identified as important to the future of the healthcare system and key to improving patient outcomes (Herath et al., 2017; Reeves et al., 2013). ICP happens when professionals from different backgrounds work together with patients, families, providers and communities to deliver the highest quality of care (Gilbert et al., 2010). Marshall (2011) notes that interprofessional collaborative practice “promotes team identity, conserves energy by a unity in direction, and invites harmony of efforts” (p. 158).

Historically, literature regarding interprofessional collaborative practice focused on the nurse-doctor relationship; however, for ICP to improve healthcare outcomes, the focus needs to include all professionals involved in the care of the patient (Pollard et al., 2005). Separation is common between health care professionals, such as physical therapists, doctors and nurses; and social care professionals such as social workers and aides. Communication is often limited when undertaking patient care. Health and social care professionals appear to understand that ICP is important, and nurses in particular view themselves as playing a key role in the ICP process (Miers & Pollard, 2009). However, there remains a need for significant improvement of ICP skills within the healthcare

---

Melissa Copenhaver, RN-BC, MS, LMSW, Instructor, Department of Nursing, and Ann Crandell-Williams, LMSW, Field Placement Coordinator and Assistant Professor, Department of Social Work, Northern Michigan University, Marquette, MI.

Copyright © 2020 Authors, Vol. 20 No. 2 (Summer 2020), 320-337, DOI: 10.18060/23318



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

environment and improving ICP will only result from the advocacy and implementation efforts of experienced leaders (Mulvale et al., 2016; Pollard et al., 2005).

Nursing and social work are two fields of study, among others, whose curricula have evolved to include standards that require integration of ICP skills. Currently, interprofessional education (IPE) programs are most common in healthcare fields and at the undergraduate level (Herath et al., 2017). The Commission on Collegiate Nursing Education (CCNE), which accredits schools of nursing, has worked to develop the Core Competencies for Interprofessional Practice (Interprofessional Education Collaborative, 2016). The field of nursing identifies Interprofessional Communication and Collaboration for Improving Patient Health Outcomes as standard number four in *The Essentials of Baccalaureate Education for Professional Nursing Practice* (American Association of Colleges of Nursing, 2015). The Council on Social Work Education, the accreditor of social work programs in the United States, discusses “using interprofessional collaboration as appropriate to achieve beneficial practice outcomes” as a practice behavior within Competency 8 of the 2015 Educational Policy and Accreditation Standards (EPAS) (Council on Social Work Education, 2015, p. 8). Additionally, the National Association of Social Work (NASW) *Code of Ethics*, section 2.03, specifically discusses the importance of interdisciplinary collaboration (2017). While these professional guidelines establish standards for these practice behaviors, best practice for instructing students in ICP skills has yet to be established.

At the mid-sized, comprehensive regional university where this study was conducted, there are limited opportunities in the program curriculums of nursing, social work, and other health and social sciences for students to learn and practice ICP skills. These are typical of curriculums throughout the United States that remain largely confined within academic silos, which do not reflect prevailing expectations for graduates entering the workforce. Isolated curriculums inevitably result in relational biases between graduates of different professions (Lapkin et al., 2013). Opportunities to participate in interprofessional collaborative practice are often arbitrary and there is limited support for students to engage in ICP (Pollard, 2009). Failure to engage students in interprofessional experiences can lead to barriers to ICP, such as lack of knowledge and lack of effective communication among professions, once students enter the workplace (Pfaff et al., 2013).

Providing opportunities for future healthcare professionals to practice ICP can be accomplished through IPE, which occurs when students of two or more professions practice together in providing collaborative, safe, high quality, accessible patient-centered care (Interprofessional Education Collaborative, 2016). While coordination of curricula among academic programs can present a challenge, experts have found far more opportunities than barriers to enacting IPE activities across programs (Homeyer et al., 2018). It is increasingly apparent that IPE within higher education is central to achieving the key educational competencies of engaging in ICP and ultimately improving healthcare outcomes (Reeves, 2016).

Despite the increasingly perceived value of IPE, there is little conclusive evidence in the literature regarding interventions that are most effective. Approaches most commonly used in IPE are patient scenarios/simulations, small group work focused on teamwork,

online discussions, lectures and small group activities (Olson & Bialocerkowski, 2014). The uncertainty regarding best IPE practice provides an opportunity to explore interventions not typically found in classrooms, such as clinical supervision.

Scholars define clinical supervision as an opportunity for persons from various backgrounds to reflect on their work with patients and families in a trusting and supportive environment that promotes growth (Butterworth et al., 2008). This occurs through regular meetings between a qualified, knowledgeable and experienced supervisor and one or more supervisees. Meetings are facilitative in nature and involve reflection and discussion around clinical and interpersonal issues encountered in the workplace (Martin et al., 2017).

## Background

### Theoretical Framework

A systematic review of the IPE/ICP literature revealed the central importance of theory; however there is no working consensus on the superiority of any one theory (Hall et al., 2013; Hean et al., 2013; Olson & Bialocerkowski, 2014). The literature suggests that learning theories, behaviorism, cognitive constructivism, and social constructivism all have the potential to play a role in IPE curriculum development. However, IPE curricula are most often developed in a top-down manner and their design has little, if any, basis in theory (Craddock et al., 2013).

Based on the lack of theoretical orientation found in the IPE literature, it was determined that it would be important to ground this project in a theoretical framework. After review, social identity theory (SIT), originally conceptualized by Tajfel and Turner (1979), was the theoretical orientation most suited to ground this process (Burford, 2012; Pecukonis, 2014). Research suggests that IPE is more effective when undertaken while students are in the process of establishing professional identities, as students can more easily transfer these skills into the professional work environment (Pollard & Miers, 2008). Therefore, the concept of identity development discussed in SIT provides the perfect foundation for this study. SIT provides a theoretical basis for facilitating collaboration among students from different fields of study as they are in the process of learning professional roles and boundaries.

SIT suggests that part of individuals' self-identity arises from group affiliations, and emphasizes how the group affiliation is reflected in the individual (Pecukonis, 2014). SIT identifies four different types of social identity:

- *Person-based social identity* are characteristics internalized by the groups that become a part of the groups members' self-concepts
- *Relational social identity* refers to the individual identifying themselves in relation to other group members
- *Group-based social identity* is consistent with the traditional view of social identity, like identifying with a particular professional label
- *Collective identity* suggests that beyond shared attributes, the groups engage in social activities that further solidify the group identity

It was anticipated that through the clinical supervision group process, students would have opportunities to experience shifts in each of the four types of social identity. As they develop their identity as individuals, professionals, and as part of a team through the group process, SIT suggests the process has the potential to assist students in identifying as part of an interprofessional team.

Additionally, SIT suggests that the establishment of normative or comparative fit influences group interactions (Burford, 2012). A more normative fit within the group facilitates collaboration. SIT suggests that IPE efforts need to address relational bias issues like power, hierarchy, professional culture, professional roles and team interaction (Pecukonis, 2014). Researchers hoped to explore whether the supportive group culture created by clinical supervision could break down potential relational biases and allow students to realize not only differences but also similarities.

SIT provides a rationale for the use of clinical supervision in IPE by addressing barriers such as biases and silos created through professional identities. Although many methods have been proposed for interprofessional education, none of the current methods clearly address the need to maintain professional identities while providing enough permeability in professional boundaries to encourage effective ICP. This project focused on the application of clinical supervision groups to enhance students' professional identities as interprofessional collaborative practitioners and improve their perspectives and skills around ICP.

### **Literature Review**

**Interprofessional education.** Communication is an essential component of ICP, however practicing healthcare professionals do not consistently engage in interprofessional communication, which leads to fragmented care and errors (Lancaster et al., 2015). Senior staff and students have been found to be even less likely to engage in ICP (Lancaster et al., 2015; Pollard et al., 2005). In order to engage in effective ICP, The Sheffield Capability framework suggests that the practicing professional should be able to lead and participate in the interprofessional team, consistently communicate sensitively in a responsive and responsible manner, demonstrate effective interpersonal skills in the context of patient/client focused care, and share uniprofessional knowledge with the team in ways that contribute to and enhance service provision (Stevenson et al., 2012, p. 228). Professionals participating in interprofessional activities report that it encourages clearer communication and use of less profession-specific jargon (Davys & Beddoe, 2009). Pollard et al.'s (2012) study suggests that programs that incorporate IPE better prepare students for ICP as working professionals. Therefore, the idea of IPE with soon-to-be-qualified health care professionals has emerged as a key practice within higher education as it addresses communication barriers that commonly occur on interprofessional teams.

Buring et al. (2009) define IPE as educators and learners from two or more health disciplines who jointly create and foster a collaborative learning environment with the goal of developing knowledge, skills and attitudes that result in interprofessional team behaviors and competence. Literature suggests that facilitators designing an IPE activity should engage in effective preparation and ongoing support; co-facilitate with an instructor from a different professional background; display humor, enthusiasm, and empathy; and provide

students with opportunities for shared reflection (Reeves et al., 2016). Literature consistently reveals that students clearly see the value in IPE, as their reactions have been shown to be generally very positive and create an improved appreciation of ICP (Addy et al., 2015; Chan et al., 2010; O'Brien et al., 2013).

**Clinical supervision.** This project aimed to explore the use of clinical supervision groups in higher education as an innovative IPE method, as it addresses the development of identity discussed in SIT, as well as addresses communication issues that commonly arise as barriers to ICP. Lyth (2000) defines clinical supervision as a support mechanism where supervisees can share clinical, organizational, developmental and emotional experiences in a confidential environment to enhance knowledge and skills. This process leads to an increased awareness of concepts such as accountability (Iliadi, 2010) and reflective practice (Mann et al., 2009). For supervisees, it provides a supportive, safe place to work out problems and stressors that occur in a clinical environment (Pack, 2012). Clouder and Sellars (2004) suggest that “clinical supervision has the potential to move beyond preserving the status quo to enhancing practice, the full potential of which might be recognized more readily in a group supervision context or in an interprofessional setting” (p. 266).

Research in the literature on clinical supervision within healthcare settings has shown promising results. Bradshaw et al. (2007) demonstrated that when participants received clinical supervision, there was an improvement in patient outcomes as compared to a control group. Studies on clinical supervision in healthcare show that it serves restorative, normative and formative functions (Brunero & Stein-Parbury, 2008). Davys and Beddoe (2009) and Townend (2005) found that interprofessional clinical supervision group participants were able to develop a more diverse understanding of patient issues and felt the experience encouraged the use of clearer communication. In addition, interprofessional clinical supervision group participants felt that the perspectives shared by group members were more open and diverse (Davys & Beddoe, 2009). A recent systematic review of clinical supervision in health care environments found that clinical supervision of health professionals was associated with effectiveness of care (Snowdon et al., 2017). However, there continues to be a need to explore clinical supervision. Systemic reviews completed by Butterworth et al. (2008) and Dilworth et al. (2013) call for continued implementation alongside further research.

**Literature review summary.** The topic of interprofessional collaborative practice is not a new concept in the health care literature and more recently it has been identified as a means to improve healthcare outcomes by breaking down communication barriers. Although IPE is identified as a means to achieve improved ICP among professionals, there is limited research that identifies best IPE practices in higher education. Clinical supervision is currently used more frequently outside of the United States, and the majority of studies related to clinical supervision thus far has been positive, yet qualitative in nature and unable to demonstrate quantifiable outcomes. This project explores the relatively untested idea that interprofessional clinical supervision groups could be an effective IPE strategy when implemented as students are in the process of actively developing their professional identities.

## Method

This study was conducted during the Winter semester (January through May) of 2016 and provided opportunities for undergraduate level social work field students and nursing students to explore their experiences together, in interprofessional clinical supervision groups, as a means of interprofessional education. The authors used a mixed-method, action research approach. The university's institutional review board approved methods prior to implementation. A small monetary incentive, in the form of campus gift cards, was provided to students for completing surveys and additional forms requested by researchers.

Poling et al. (2016) used the Core Competencies for Interprofessional Collaborative Practice to develop guidelines for interprofessional research with the intent of generating more robust research outcomes. These guidelines informed the process utilized in this project. The guidelines emphasize working with professions with mutual respect and shared values, using knowledge of one's own role and the role of others, communicating in a responsive and responsible manner, and utilizing relationship building values and principles to guide the actions of the research team (Poling et al., 2016).

A non-probability convenience sample of 34 undergraduate, final year students from both nursing and social work participated in the project. Nursing students were selected from those enrolled in Mental Health Nursing and Community-Based Nursing courses. Social Work students were recruited from concurrent Field Placement and Senior Seminar courses. These courses were selected because both sets of students were in senior-level, pre-professional stages of forming professional identities, and were experientially engaged in completing clinical hours in community social service agencies such as substance abuse treatment facilities, mental health organizations, and child welfare agencies. Emails were sent to eligible students offering information regarding the study, and students who wished to participate responded and completed consent forms. The authors selected a comparison group from the same pool of candidates. A non-probability convenience sample of eight students each from both nursing and social work participated in clinical supervision groups. Sixteen students made up the experimental group. Eighteen students made up the control group, who received the standard curriculum for their respective disciplines.

Students in both experimental and control groups were provided varied opportunities in their clinical sites to interact with professionals of other disciplines. The control group students in their respective programs were provided opportunity, while limited, to discuss or process these experiences using standard academic instruction at their clinical sites. The intervention provided to students in the experimental group differed in that (1) students engaged with students from other disciplines; (2) groups were co-led by two facilitators from different areas of study with a focus on interprofessional collaboration; and (3) groups were facilitated using a clinical supervision approach.

When forming the experimental groups, researchers split social work and nursing students evenly into two groups, totaling eight students in each group. Each group met five times during the winter semester. Groups were 90 minutes long and scheduled every two weeks at times most convenient to students' schedules. Groups were co-facilitated by the researchers, comprised of one nursing instructor and one social work instructor, who both had experience with clinical supervision and running groups.

Prior to participation in clinical supervision groups, an interprofessional clinical supervision orientation was provided for students in the experimental group as a shared learning experience. The orientation provided students with an overview of interprofessional education and the purpose, function, and methods used during a clinical supervision group. Students were also taught the basics of how to effectively interact in a clinical supervision group, such as how to present a case, give feedback, and effectively interact in a supportive and collaborative manner. The interprofessional clinical supervision groups then commenced. During the first experimental group session, students introduced themselves and identified the agency to which they were assigned clinically-related course work. Focus in subsequent sessions then moved to discussion of issues or cases the students encountered at their clinical sites. Assigned facilitators remained the same throughout all sessions to facilitate the supervisor/supervisee relationship imperative to the clinical supervision process. Per the conceptualization of clinical supervision outlined by Martin and colleagues, meetings were semi-structured, facilitative in nature and involved reflection and discussion around clinical and interpersonal issues encountered at field sites (2017). Facilitation focused on promoting communication and support among students.

### **Data Collection**

In order to capture the possible impacts of the interprofessional clinical supervision groups, researchers used an emergent, mixed-methods approach. This approach was selected to ensure the findings would be grounded in the participants' experiences as informed by knowledge of IPE, clinical supervision, and the SIT theoretical framework. An emergent method was used to balance the study and measurement with the educational focus of the project. Quantitative methods were used as the researchers wanted to fully capture how the participants' social identities as students and future professionals were influenced by the experience. A mixed-methods approach allowed researchers to explore the multiple implications of the use of clinical supervision as an IPE intervention.

The quantitative method utilized a quasi-experimental design that analyzed pre- and post-data captured with a standardized evaluation tool that measured attitudes about interprofessional collaboration. The standardized tool selected for this study was the Interprofessional Socialization and Valuation Scale (ISVS). The ISVS is a 34-item tool measuring respondents' agreement level with statements about ICP behaviors using a seven-point Likert scale. Examples of ISVS items are "I feel confident in taking on different roles in a team," "I am able to share and exchange ideas in a team discussion," and "I have gained an enhanced awareness of roles of other professionals on a team." Statements are intended to measure changes in beliefs, behaviors, and attitudes that are foundational to interprofessional collaboration. Author permission was obtained prior to employing the tool.

The ISVS tool demonstrated reliability and validity, was determined to have broad application across professions, and fully met the standards for instrument development (King et al., 2010; Oates & Davidson, 2015). De Vries et al. (2015) completed Bartlett's test to assess relationships between the variables and found a significance of less than 0.001. Cronbach's alpha was completed and found good reliability for Factors 1, 2 and 4

while Factors 3 and 5 demonstrated lower reliability (De Vries et al., 2015). Coefficient for Factor 1, Self-Perceived Ability to Work with Others, was .89; Factor 2, Value in Working with Others, .82; and Factor 4, Comfort in Working with Others, was calculated at .79. Factors 3 (Self-Perceived Ability to Work with Others) and 5 (Value in Working with Others) had coefficients of .55 and .34, respectively. (DeVries et al., 2016). DeVries et al. state that this low value "...indicates the difficulty of working collaboratively with others, despite positive attitudes toward interprofessional practice" (p. 83, 2016).

Participating students were randomly assigned to experimental and comparison groups. Students in both groups completed the ISVS at both the start and conclusion of the Winter 2016 semester in which the clinical supervision groups were held. The comparison group was used to help differentiate whether potential changes in the pre- and post-test scores of the ISVS were the result of the intervention. The qualitative method involved a survey comprised of open-ended questions that the experimental group completed at the conclusion of the interprofessional clinical supervision group intervention. To reduce the possibility of perceived participant coercion since the lead researchers were program faculty, a graduate student assisted with student recruiting and data collection.

### **Data Analysis and Results**

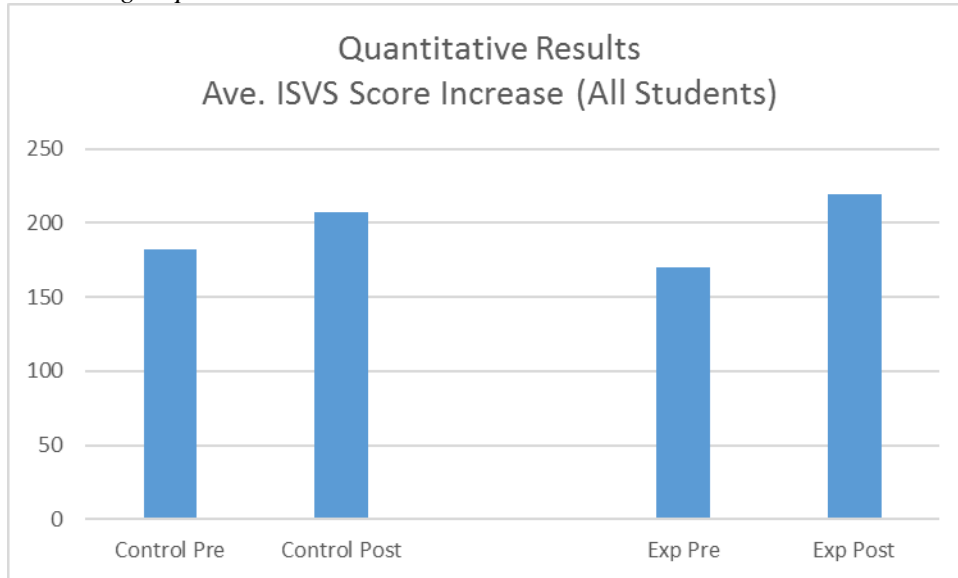
**Group Demographics.** Participants included seven male and 27 female students. The mean age of all students who participated was 24 years old. Eighty-eight percent of the students identified their race as Caucasian with one selecting Asian, one selecting Native American, and one selecting Other. The average age was 26 years in the experimental group (age range 21-36 years) and 23 years in the control group (age range 21-32 years). Levene's test suggested the two groups were similar.

**Quantitative Data Analysis.** Researchers analyzed quantitative data from the pre- and post-tests using the Statistical Package for Social Sciences (SPSS) software program. The overall range of the scores for all groups on the ISVS for the pre-test was 98-212 with a standard deviation of 28.3. For the post-test, the range was 162-235 with a standard deviation of 19.3. All students combined in the experimental group had a mean pretest score of 170 and the control group had a mean pretest score of 182. The mean post-test score for the experimental group was 219 and the control group had a post-test score of 207. This indicated a 49 point (129%) increase in total score in the experimental group and a 25 point (114%) increase in the control group. This increase in scores suggests a robust improvement in knowledge and beliefs regarding interprofessional collaboration in the experimental group (see Figure 1).

Examination of variations between nursing and social work students identified that the average increase in the ISVS post-test for nursing students in the experimental group was 43 points and for social work students 63 points. Nursing students in the control group had a 14-point increase in the ISVS and the social work control group increased 32 points. Although the sample size of 16 was not large enough to establish significance, the increase in the scores of those in the experimental group compared to the control group suggests interprofessional clinical supervision shows promise as a means of implementing IPE (see Figure 2).

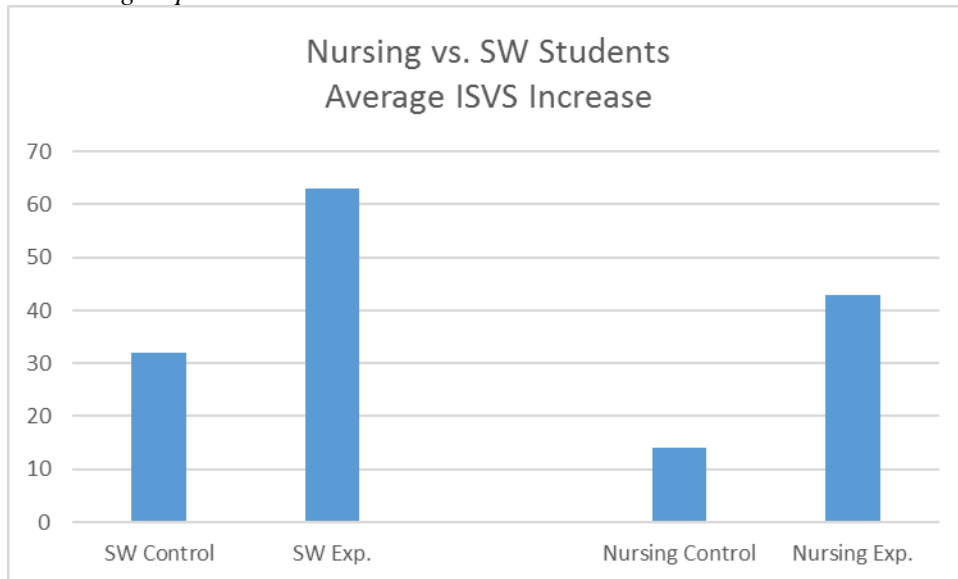


Figure 1. Comparison of the average pre- and post-scores on the ISVS for the control and experimental groups



Note: Increases in pre- and post-test scores of ISVS between control and experimental

Figure 2. Average increase in ISVS scores between Social Work and Nursing control and experimental groups



**Qualitative data analysis.** A qualitative survey was developed for members of the experimental group to complete as part of post-test data collection. The survey asked how many sessions the student had attended; what the student found helpful and unhelpful about participation in the groups; how (if at all) the students felt their ICP skills improved; and

how (if at all) the experience would impact the students' reactions to ICP situations in their future professional work.

Researchers analyzed qualitative data using Braun and Clarke's (2006) thematic analysis approach. During analysis of qualitative comments on interview feedback forms, researchers first performed immersive, independent analyses of the data. Researchers independently searched for themes using manual coding methods. Researchers then met to review, define and name themes for each data set, using an iterative approach until themes were refined. Themes were based primarily on prevalence using inductive methods from an essentialist/realist perspective. Through the revision process, latent themes were identified and further refined that were consistent with concepts related to IPE.

Other qualitative methods used for data analysis included utilization of independent expert reviews, consideration of negative case samples, and use of low inference descriptors. Expert review involved presentation of the research as a Doctor of Nursing Practice (DNP) scholarly project and at several academic and professional conferences. Possible explanations for outliers emerging from the data were noted and may be tested through further research. Low-inference descriptors were used by integrating verbatim accounts of student responses within the reporting of results.

Overall, students' responses were highly favorable regarding the interprofessional clinical supervision experience. Three primary themes gleaned from qualitative analysis were: (1) enhancement of interprofessional knowledge; (2) improvement of interprofessional communication skills; and (3) increased confidence in interprofessional settings.

Students appeared to value the multiple viewpoints offered by interprofessional clinical supervision groups, further expanding their professional knowledge base. They indicated that clinical supervision was helpful because the groups allowed students to explore different perspectives from students in another discipline. As one student noted, "being part of a team with different viewpoints expanded my knowledge base and views of clients or situations." Students commented that they gained additional professional knowledge from the groups that they planned to take with them into their practice.

Students felt their interprofessional communication skills improved because of participating in the interprofessional clinical supervision groups, specifically by sharing cases and receiving feedback in an interprofessional setting. One student commented, "it was very helpful to talk about situations that happened in field and receive feedback." Students expressed appreciation for being able to "get things off their chest" by sharing difficult experiences. One student stated he/she valued "being able to talk out issues I would have been otherwise uncomfortable with and would have hindered my effectiveness..." The collaborative environment within the groups appeared to create a space where students felt emotionally safe to share, such as one student who indicated, "It was refreshing to feel part of a team that wants you to succeed." Students noted that they found communicating with students from other professionals a helpful and positive experience. Furthermore, students realized that receiving feedback from students of other academic backgrounds improved their communication skills and enhanced their approach to clients. Students felt this would enhance their communication skills as future

professionals, such as one student who stated “I will be more open to listening and collaborating with other disciplines.”

Additionally, the clinical supervision experience allowed for students of different disciplines to increase their confidence in an interprofessional team atmosphere. One student commented, “I am much more comfortable speaking as a part of an interprofessional group and sharing ideas. I gained confidence in my professional viewpoint.” Another stated, “I feel my opinions will be valued within these situations as my skills have improved.” Sharing, acceptance, and commonalities appeared to improve students’ confidence on an interprofessional team. As one student said, “This group taught me how to work together as a whole to provide holistic nursing care.” The interprofessional clinical supervision group experience appeared to further enhance students’ faith in their abilities in a team atmosphere and increase likelihood of future interprofessional behavior. One student stated, “I feel like I will go into [interprofessional] situations more positively knowing how much I will get out of the experience.”

Certain themes appeared more common among students based on their academic background. Nursing students gained confidence in their ability to express concerns in front of a group and improved self-efficacy in dealing with mental health patients in particular. Social work students gained an increased understanding of their role on an interprofessional team and developed an increased sense of confidence that their opinion would be valued in an interprofessional setting. Despite some differences in student reactions to the event, reactions from students of both disciplines included an understanding that their improved skills would benefit clients, as reflected by one student who stated, “I now have greater experience working collaboratively over patient's care which will help with patient-centered care overall.”

### **Discussion**

Applying SIT to this theme, the interprofessional clinical supervision group appeared to diminish barriers between professions and assisted students in strengthening their person-based, group-based, and collective identities (Burke, 2006). Students from both areas of study showed improvements in the following ICP skills: ability to see different perspectives; ability to receive feedback; ability to speak in groups; and feeling like a member of a team. A main theme that emerged was an improved level of comfort with being able to work as a member of a team in interprofessional situations. Several students reflected sentiments such as “I [now] will be very excited and motivated to be a part of an interprofessional team.”

Perhaps most importantly, students reported that they were able to improve skills related to working with clients as a result of participation in the clinical supervision groups. Students identified the ability to see different perspectives, improve communication skills with other professions, and increase skills for working with clients. Students consistently felt that their improved ICP skills would enable them to provide better care to clients in their respective professions.

Findings reflect that interprofessional clinical supervision groups fostered an IPE environment that improved nursing and social work students’ ICP skills, knowledge and

attitudes for future professional practice. Data show that students improved their ability to clearly and sensitively communicate, understand multiple perspectives, and feel supported as part of an interprofessional team. Students clearly articulated the value and benefits of participation in the interprofessional clinical supervision groups and expressed the importance of providing this type of experience for future students in their respective programs. Drawing from the SIT framework, as students engaged in this activity while in the process of developing professional identities, there is optimism that they will develop into professionals who are more likely to engage in ICP, resulting in improved quality of health care environments where they will ultimately practice.

In the search for effective IPE interventions, this study provides promising evidence that the use of interprofessional clinical supervision groups in higher education warrants further exploration. This study further supports prior research by Davys and Beddoe (2009) and Townend (2005), who found that interprofessional clinical supervision group participants developed a more diverse understanding of patient issues and encouraged the use of clearer communication, and expanded this idea to the IPE environment. The SIT framework suggests that clinical supervision provides a valuable opportunity to for students to develop a collective identity as part of an interprofessional team. Clinical supervision provides a safe space where students of varying disciplines can openly communicate, break down barriers, and learn from students of other disciplines, ultimately enhancing their ICP skills.

It was anticipated that both control and experimental groups would have some increase in their ISVS scores due to standard professional development experiences within their senior level placements. However, quantitative data demonstrated that students in the interprofessional clinical supervision groups experienced a greater degree of increase in their ISVS scores than the control group, suggesting these students experienced a greater degree of improvement in their knowledge and attitudes around ICP. Qualitative responses supported this idea as well and showed that students found the experience highly beneficial. Recurrent qualitative themes included enhancement of interprofessional knowledge; improvement of interprofessional communication skills; and increased comfort levels on an interprofessional team. Applying SIT to these outcomes, it is reasonable to assume that students' collective experiences in the clinical supervision groups at a time when they are developing professional identities will enhance their future behavior as members of an interprofessional team.

While responses among nursing and social work students varied in some ways, both groups had positive reactions to the interprofessional clinical supervision groups. Many skills, such as giving and receiving feedback and developing a broader understanding of the patient, suggest that this approach as an IPE intervention can improve the quality and safety of care provided. Analysis of quantitative data also supports this idea. Additionally, this project itself represents improved interprofessional collaboration among faculty members, as the foundation of interprofessional education is modeling of such behavior by faculty. Study results further support the idea that emphasis on the importance of interprofessional collaboration is necessary to further IPE in academia.

### **Limitations**

Although attempts were made to minimize perceptions of coercion, the involvement of two faculty members known to the students may have produced some bias in their responses. Additionally, the sample size does not allow definitive measurement of the effects of the IPE intervention as sample sizes were too small to determine meaningful inferential statistics. The project site was a public university in a rural area of a Midwestern state, therefore further research is needed to replicate findings. Furthermore, the initial design of this project did not assess the sustained impact of the clinical supervision groups. There is limited literature that looks at the long-term outcomes of IPE interventions. Due to limited follow-up data, a second IRB was submitted to allow for follow up data to be solicited.

### **Conclusion**

Data suggests that interprofessional clinical supervision groups in higher education show promise as an IPE intervention to prepare undergraduate students for interprofessional practice. This study provides insight into the benefits of group clinical supervision as an IPE method, which existing research has thus far failed to quantify. Using the ISVS allows better comparisons with other methods. Qualitative data illustrates the benefits students gained from the experience such as improved ability to see different perspectives and improved communication skills. As one participant noted, "I have begun viewing clients' treatment more holistically" which reflects a long-desired outcome sought by many health and social care curriculums. Student responses suggest they overwhelmingly perceived the experience of interprofessional clinical supervision groups as beneficial to their future careers as health care providers.

Interprofessional collaborative practice has the potential to improve patient outcomes and interprofessional group clinical supervision has potential as an IPE intervention in higher education and beyond. Since professional identities continue to develop over time, on-going clinical supervision groups may provide professionals of varying backgrounds with opportunities to explore boundaries and promote development of normative fit not only within the educational environment, but in the professional arena as well.

Further studies need to be completed using larger samples to definitively quantify the impact of interprofessional clinical supervision groups on IPE, ICP and ultimately on health care outcomes. Additional studies should also explore if the main positive impacts of interprofessional clinical supervision persist and are sustained as undergraduates join the workforce. Interprofessional clinical supervision groups show considerable promise as an intervention to prepare undergraduate students to become effective members of an interprofessional team once they enter the workforce. With support from innovative leaders, clinical supervision has promise as a means to develop effective health care teams capable of high-quality patient care.

## References

- Addy, C. L., Browne, T., Blake, E. W., & Bailey, J. (2015). Enhancing interprofessional education: Integrating public health and social work perspectives. *American Journal of Public Health, 105*, 106-108. <https://doi.org/10.2105/AJPH.2014.302502>
- American Association of Colleges of Nursing. (2008). *The essentials of baccalaureate education for professional nursing practice*. <https://www.aacnnursing.org/Portals/42/Publications/BaccEssentials08.pdf>
- Bradshaw, T., Butterworth, A., & Mairs, H. (2007). Does structured clinical supervision during psychosocial intervention education enhance outcome for mental health nurses and the service users they work with? *Journal of Psychiatric & Mental Health Nursing, 14*(1), 4-12. <https://doi.org/10.1111/j.1365-2850.2007.01021.x>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brunero, S., & Stein-Parbury, J. (2008). The effectiveness of clinical supervision in nursing: An evidenced based literature review. *Australian Journal of Advanced Nursing, 25*(2), 86-94.
- Burford, B. (2012). Group processes in medical education: Learning from social identity theory. *Medical Education, 46*(2), 143-152. <https://doi.org/10.1111/j.1365-2923.2011.04099.x>
- Buring, S. M., Bhushan, A., Broeseker, A., Conway, S., Duncan-Hewitt, W., Hansen, L., & Westberg, S. (2009). Interprofessional education: Definitions, student competencies, and guidelines for implementation. *American Journal of Pharmaceutical Education, 73*(4), 1-8. <https://doi.org/10.5688/aj730459>
- Burke, P. J. (2006). *Contemporary Social Psychological Theories*. Stanford, California: Stanford University Press.
- Butterworth, T., Bell, L., Jackson, C., & Pajnkihar, M. (2008). Wicked spell or magic bullet? A review of the clinical supervision literature 2001-2007. *Nurse Education Today, 28*(3), 264-272. <https://doi.org/10.1016/j.nedt.2007.05.004>
- Chan, E. A., Chi, S. P. M., Ching, S., & Lam, S. K. (2010). Interprofessional education: The interface of nursing and social work. *Journal of Clinical Nursing, 19*(1-2), 168-176. <https://doi.org/10.1111/j.1365-2702.2009.02854.x>
- Clouder, L., & Sellers, J. (2004). Reflective practice and clinical supervision: An interprofessional perspective. *Journal of Advanced Nursing, 46*(3), 262-269. <https://doi.org/10.1111/j.1365-2648.2004.02986.x>
- Council on Social Work Education. (2015). *2015 Educational Policy and Accreditation Standards for Baccalaureate and Master's Social Work Programs*. Alexandria, VA: Author. [https://www.cswe.org/getattachment/Accreditation/Accreditation-Process/2015-EPAS/2015EPAS\\_Web\\_FINAL.pdf.aspx](https://www.cswe.org/getattachment/Accreditation/Accreditation-Process/2015-EPAS/2015EPAS_Web_FINAL.pdf.aspx)

- Craddock, D., O'Halloran, C., McPherson, K., Hean, S., & Hammick, M. (2013). A top-down approach impedes the use of theory? Interprofessional educational leaders' approaches to curriculum development and the use of learning theory. *Journal of Interprofessional Care*, 27(1), 65-72. <https://doi.org/10.3109/13561820.2012.736888>
- Davys, A., & Beddoe, L. (2009). Interprofessional learning for supervision: "Taking the blinkers off." *Learning in Health & Social Care*, 8(1), 58-69. <https://doi.org/10.1111/j.1473-6861.2008.00197.x>
- De Vries, D. R., Woods, S., Fulton, L., & Jewell, G. (2015). The validity and reliability of the Interprofessional Socialization and Valuing Scale for therapy professionals. *Work*, 53(3), 621-630. <https://doi-org.nmu.idm.oclc.org/10.3233/WOR-152224>
- Dilworth, S., Higgins, I., Parker, V., Kelly, B., & Turner, J. (2013). Finding a way forward: A literature review on the current debates around clinical supervision. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 45(1), 22-32. <https://doi.org/10.5172/conu.2013.45.1.22>
- Gilbert, J. H., Yan, J., & Hoffman, S. J. (2010). A WHO report: Framework for action on interprofessional education and collaborative practice. *Journal of Allied Health*, 39(1), 196-197.
- Hall, P., Weaver, L., & Grassau, P. A., (2013). Theories, relationships and interprofessionalism: Learning to weave. *Journal of Interprofessional Care*, 27(1), 73-80. <https://doi.org/10.3109/13561820.2012.736889>
- Hean, S., O'Halloran, C., Craddock, D., Hammick, M., & Pitt, R. (2013). Testing theory in interprofessional education: Social capital as a case study. *Journal of Interprofessional Care*, 27(1), 10-17. <http://doi.org/10.3109/13561820.2012.737381>
- Herath, C., Zhou, Y., Gan, Y., Nakandawire, N., Gong, Y., & Lu, Z. (2017). A comparative study of interprofessional education in global health care: A systematic review. *Medicine*, 96(38), 1-7. <https://doi.org/10.1097/MD.00000000000007336>
- Homeyer, S., Hoffmann, W., Hingst, P., Oppermann, R. F., & Dreier-Wolfgramm, A. (2018). Effects of interprofessional education for medical and nursing students: Enablers, barriers and expectations for optimizing future interprofessional collaboration - a qualitative study. *BMC Nursing*, 17(13), 1-10. <https://doi.org/10.1186/s12912-018-0279-x>
- Iliadi, P. (2010). Accountability and Collaborative Care: How interprofessional education promotes them. *Health Science Journal*, 4(3), 129-135. <https://www.hsj.gr/medicine/accountability-and-collaborative-care-how-interprofessional-education-promotes-them.pdf>
- Interprofessional Education Collaborative. (2016). *Core Competencies for Interprofessional Collaborative Practice*. <https://hsc.unm.edu/ipe/resources/ipec-2016-core-competencies.pdf>
- King, G., Shaw, L., Orchard, C. A., & Miller, S. (2010). The interprofessional socialization and valuing scale: A tool for evaluating the shift toward collaborative

- care approaches in health care settings. *Work: A Journal of Prevention, Assessment, & Rehabilitation*, 35(1), 77-85. <https://doi.org/10.3233/WOR-2010-0959>
- Lancaster, G., Kolakowsky-Hayner, S., Kovacich, J., & Greer-Williams, N. (2015). Interdisciplinary communication and collaboration among physicians, nurses, and unlicensed assistive personnel. *Journal of Nursing Scholarship*, 47(3), 275-284. <https://doi.org/10.1111/jnu.12130>
- Lapkin, S., Levett-Jones, T., & Gilligan, C. (2013). A systematic review of the effectiveness of interprofessional education in health professional programs. *Nurse Education Today*, 33(2), 90-102. <https://doi.org/10.1016/j.nedt.2011.11.006>
- Lyth, G. M. (2000). Clinical supervision: A concept analysis. *Journal of Advanced Nursing*, 31(3), 722-729. <https://doi.org/10.1046/j.1365-2648.2000.01329.x>
- Mann, K. V., Mcfetridge-Durdle, J., Martin-Misener, R., Clovis, J., Rowe, R., Beanlands, H., & Sarria, M. (2009). Interprofessional education for students of the health professions: The "Seamless Care" model. *Journal of interprofessional care*, 23(3), 224-233. <https://doi.org/10.1080/13561820802697735>
- Marshall, E. S. (Ed.). (2011). *Transformational leadership in nursing: From expert clinician to influential leader*. Springer Publishing Company. <https://doi.org/10.1891/9780826135056>
- Martin, P., Kumar, S., & Lizarondo, L. (2017). When I say...clinical supervision. *Medical Education*, 51(9), 890-891. <https://doi.org/10.1111/medu.13258>
- Miers, M., & Pollard, K. (2009). The role of nurses in interprofessional health and social care teams. *Nursing Management - UK*, 15(9), 30-35. <https://doi.org/10.7748/nm2009.02.15.9.30.c6882>
- Mulvale, G., Embrett, M., & Razavi, S. D. (2016). 'Gearing Up' to improve interprofessional collaboration in primary care: A systematic review and conceptual framework. *BMC Family Practice*, 17(83), 1-13. <https://doi.org/10.1186/s12875-016-0492-1>
- National Association of Social Workers. (2017). *NASW code of ethics* (Rev. ed.). Author. <https://doi.org/10.1093/sw/39.6.755>
- O'Brien, D., McCallin, A., & Bassett, S. (2013). Student perceptions of an interprofessional clinical experience at a university clinic. *New Zealand Journal of Physiotherapy*, 41(3), 81-87.
- Oates, M., & Davidson, M. (2015). A critical appraisal of instruments to measure outcomes of interprofessional education. *Medical Education*. 49(4), 386-398. <https://doi.org/10.1111/medu.12681>
- Olson, R., & Bialocerkowski, A. (2014). Interprofessional education in allied health: A systematic review. *Medical Education*, 48(3), 236-246. <https://doi.org/10.1111/medu.12290>



- Pack, M. (2012). Two sides to every story: A phenomenological exploration of the meanings of clinical supervision from supervisee and supervisor perspectives. *Journal of Social Work Practice, 26*(2), 163-179. <https://doi.org/10.1080/02650533.2011.611302>
- Pecukonis, E. (2014). Interprofessional education: A theoretical orientation incorporating profession-centrism and social identity theory. *The Journal of Law, Medicine & Ethics, 42*(2), 60-64. <https://doi.org/10.1111/jlme.12189>
- Pfaff, K., Baxter P., Jack S., & Ploeg J. (2014). An integrative review of the factors influencing new graduate nurse engagement in interprofessional collaboration. *Journal of Advanced Nursing, 70*(1), 4-20. <https://doi.org/10.1111/jan.12195>
- Poling, D. B., Wilson, M., Finke, L. K., Bokhart, G., & Buchanan, J. (2016). Interprofessional research guidelines for health care students. *Nursing Education Perspectives, 37*(6), 345-346. <https://doi.org/10.1097/01.NEP.0000000000000079>
- Pollard, K. (2009). Student engagement in interprofessional working in practice placement settings. *Journal of Clinical Nursing, 18*(20), 2846-2856. <https://doi.org/10.1111/j.1365-2702.2008.02608.x>
- Pollard, K. C., & Miers, M. (2008). From students to professionals: Results of a longitudinal study of attitudes to pre-qualifying collaborative learning and working in health and social care in the United Kingdom. *Journal of Interprofessional Care, 22*(4), 399-416. <https://doi.org/10.1080/13561820802190483>
- Pollard, K. C., Ross, K., & Means, R. (2005). Nurse leadership, interprofessionalism and the modernization agenda. *British Journal of Nursing, 14*(6), 339-344. <https://doi.org/10.12968/bjon.2005.14.6.17805>
- Reeves, S. (2016). Why we need interprofessional education to improve the delivery of safe and effective care. *Interface-Comunicação, Saúde, Educação, 20*(56), 185-197. <https://doi.org/10.1590/1807-57622014.0092>
- Reeves, S., Pelone, F., Hendry, J., Lock, N., Marshall, J., Pillay L., & Wood, R. (2016). Using a meta-ethnographic approach to explore the nature of facilitation and teaching approaches employed in interprofessional education. *Medical Teacher, 38*(12), 1221-1228. <https://doi.org/10.1080/0142159x.2016.1210114>
- Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: Effects on professional practice and healthcare outcomes (update). *Cochrane Database of Systematic Reviews, 3*, 1-44. <https://doi.org/10.1002/14651858.cd002213.pub3>
- Snowdon, D. A., Leggat, S. G., & Taylor, N. F. (2017). Does clinical supervision of healthcare professionals improve effectiveness of care and patient experience? A systematic review. *BMC Health Services Research, 17*, 1-11. <https://doi.org/10.1186/s12913-017-2739-5>
- Stevenson, K., Seenan, C., Morlan, G., & Smith, W. (2012). Preparing students to work effectively in interprofessional health and social care teams. *Quality in Primary Care, 20*(2), 103-108. <https://doi.org/10.1186/1745-2975-20-2>

- 20(3), 227-230. <https://primarycare.imedpub.com/preparing-students-to-work-effectively-in-interprofessional-health-and-social-care-teams.pdf>
- Tajfel, H., & Turner, J. C. (1979). An Integrative Theory of Intergroup Conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Brooks/Cole.
- Townend, M. (2005). Interprofessional supervision from the perspectives of both mental health nurses and other professionals in the field of cognitive behavioural psychotherapy. *Journal of Psychiatric & Mental Health Nursing*, 12(5), 582-588. <https://doi.org/10.1111/j.1365-2850.2005.00878.x>
- Author note:** Address correspondence to Ann Crandell-Williams, Department of Social Work, Northern Michigan University, 1401 Presque Isle Ave., 2408 Jamrich Hall, Marquette, MI, 49855. Email: [acrandel@nmu.edu](mailto:acrandel@nmu.edu)