5-1-2017

The Attitudes And Social Identity Of Faculty After Participating In Interprofessional Education

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THE ATTITUDES AND SOCIAL IDENTITY OF FACULTY

AFTER PARTICIPATING IN INTERPROFESSIONAL EDUCATION

By

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A DISSERTATION

Presented to the Affiliated Faculty of

the College of Graduate and Professional Studies at the University of New England

Submitted in Partial Fulfillment of Requirements

For the degree of Doctor of Education

Portland & Biddeford, Maine

April, 2017

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April 2017
Educational Leadership

THE ATTITUDES AND SOCIAL IDENTITY OF FACULTY AFTER PARTICIPATING IN

INTERPROFESSIONAL EDUCATION

Interprofessional education (IPE) is a global initiative to prepare pre-licensure health professional students for health care team collaboration (WHO, 2010). However, many barriers limit IPE development in academia, including academic structure and faculty participation. The purpose of this study is to better understand how participation in IPE programs affect faculty social identity and their attitudes toward IPE curriculum inclusion. The use of social identity theory and transformational learning theory conceptually guide the research process. This multiple-case study collected data from the interviews of eight faculty representing various entry-level health professions from three universities. Each participant had experience in at least one IPE program. Data analysis of their responses was conducted manually and in aggregate. All themes are supported with direct quotes from participants, and approved by an external audit. Each theme was classified into correlating research-based categories, including social identity, attitudes toward IPE, faculty role in IPE and faculty learning experience. Cross professional-culture diversity and interaction hierarchy were the themes supporting the social identity category. Perseverance, professional competence, and self-directed learning were the themes identified in the attitudes toward IPE category. The theme of role expansion supported the faculty role in IPE category. Finally, student perceptions and valued collaboration were the established themes related to faculty learning from IPE. Analysis of the themes led to the findings of the study. The first finding related to social identity revealed faculty who participate

in IPE breakout from their academic silo to initiate discussion with faculty from other departments; and often choose programs that their discipline commonly collaborates with clinically. The second finding recognized that despite barriers to IPE program development and limited administrative support, faculty persevere to promote best clinical practice through IPE programming inclusion in curriculum. The third finding identified faculty who participate in IPE programs often want to expand their role in future programming. The final finding acknowledge faculty learn that they appreciate the IPC experience with faculty from other disciplines, and students benefit from IPE experience. In conclusion, IPE has a positive effect on faculty development and promotes IPE sustainability in curriculum.

University of New England

Doctor of Education
Educational Leadership

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April 27, 2017
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ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

Interprofessional collaboration (IPC) is gaining momentum in today's global health care systems. Improved patient outcomes and reduced economic burdens are attributed to the implementation of health care teams to care for patients worldwide (World Health Organization, 2010). The positive response from implementing IPC has created a demand for interprofessional training in health care facilities. However, transforming attitudes of seasoned health professionals from focusing on their individual role in patient care to a health team mentality is a rigorous process. As a result, interprofessional education (IPE) in health education programs has become a global priority to prepare future health professionals for IPC at entry-level (World Health Organization, 2010).

Many of the accrediting agencies for health professional programs are setting standards to include IPE with the requirement that each program comply in the future (Zorek & Raehl, 2012). The first step in establishing consistent IPE development was to define the process. The World Health Organization (WHO) developed a framework for action as a reference for education programs to assist in the design and implementation of quality IPE programming (World Health Organization, 2012). In addition to an IPE framework, the Interprofessional Education Collaborative (IPEC) created specific competencies for IPE programming that ensure the quality of all IPE programs (Interprofessional Education Collaborative, 2011). Assessment tools were developed to assess students' attitudes and perceptions of IPC before and after programming (Presell & Bligh, 1999; Rose, Smith, Veloski, Lyons, Umland, & Arenson, 2009).

Integrating IPE into curricula has many challenges. One challenge frequently cited by faculty is creating an IPE experience that coincides with the curricula of multiple health

discipline programs (Lash, Barnett, Nirali, Shieh, Louie & Tang, 2014). Another challenge is that designing IPE courses and activities requires committed faculty from each health discipline to champion the program from beginning to end (Swisher, Woodard, Quillen & Monroe, 2010). While challenges are present, there are interdisciplinary faculty who work together and make IPE happen.

The literature supports the use of IPE student assessment tools to determine if the IPE courses and activities are indeed improving students' attitudes and perceptions of IPC (Rose et al., 2009; Parsell & Bligh, 1999; Bagatell & Broggi, 2014). The response from students related to IPE is often positive (Hoffman, Rosenfield & Nasmith, 2009); however, faculty members tend to be reluctant to participate in IPE instruction (Lash et al., 2014). A common report from faculty regarding their lack of initiative in IPE instruction correlates with the additional time required to execute the IPE plan (Lash et al., 2014). However, there was nothing in the literature reviewed for this study to indicate whether faculty's involvement in IPE instruction affects their views on IPE in curriculum, their role in IPE, and their social identity.

Statement of Problem

Interprofessional education is vital to prepare health professional students to collaborate in health teams post-graduation. There are more faculty who are reluctant to participate in IPE development than there are faculty who are motivated and committed to the cause of increasing IPE exposure for students (World Health Organization, 2010). This concern of the supply not meeting the demand is a global issue, especially when current education accrediting agencies are standardizing IPE requirements. Despite challenges to implementation of IPE, there are faculty members who have been successful in integrating programs within their curriculum and continue to develop IPE. It is essential to investigate the IPE experiences of faculty to understand how the

process of IPE programming shapes their social identity and their attitudes toward including IPE in the curriculum.

Purpose of the Study

The purpose of this multiple-case study aims to understand how faculty participation in initiating, developing, delivering and assessing IPE in the didactic preparation of health professional students affects faculty social identity and their attitudes toward IPE.

Conceptual Framework

Interprofessional education is a standard in most health programs' accrediting standards. Faculty are responsible for initiating this process of developing, delivering and assessing IPE. This study will investigate the effects on faculty who participate in IPE programming related to their identity and attitudes toward IPE. The Social Identity Theory (SIT) and the Transformative Learning Theory (TLT) will guide the process of gaining the necessary information.

Social Identity Theory. The SIT supports the intergroup workings related to multiple identities that occur during IPC (Burford, 2012). The concentration on the professional identity integrating with the social identity of the group provides an understanding of how people function together. Professional identity is often present when health professionals are in the clinic. However, there is an identity shift that occurs when clinicians move into the role of academician and there is a loss of teamwork focus in academia when compared to the clinical setting (Murray et al., 2014). Considering that faculty participation in IPE programming requires them to return to a teamwork approach when developing IPE, the autonomous academician identity must shift to include a teamwork approach. The SIT is a guide to determine if there is a perceived shift in the participants' social identity. Interview questions in this study facilitated a

reflection on the participant's role in the group process of IPE programming and his or her social identity perceptions.

Transformative Learning Theory. The TLT can guide the investigation toward understanding if IPE experience facilitates a shift in faculty's personal development related to their social identity and their attitudes toward IPE. Transformative learning occurs when individual knowledge is transformed from experience (Sargeant, 2009). Transformative learning depends on "3 fundamental activities: learning from experience, critical reflection, and personal development" (Sargeant, 2009, p. 182).

Everyone comes to the table with their own set of values, experiences, and beliefs. Keeping this in mind, two people may have different learning responses from the same experience. This divergence is where critical reflection lends itself well to incorporate a personal reflection on what was just experienced, especially if it is a new experience that is counter to their values, knowledge, and/or beliefs (Sargeant, 2009). Once critical reflection occurs, individuals can attain personal development and growth.

Utilizing the transformative learning theory as a guide will aide in investigating if faculty members experience personal development related to social identity, their perceptions of IPE within curriculum and their role in IPE development. The interview process allows for the participants to reflect on their experience from participating in IPE programming. The interview questions were developed to stimulate personal reflection to better understand if and how the experience transformed the participants' attitudes toward IPE and their social identity.

Research Questions

The principle research question for this study is how does the faculty experience initiating, developing and delivering IPE in the didactic preparation of health professional students impact faculty members?

Additional research questions included in this study are:

How does the faculty experience of participating in IPE programming shape faculty members' social identity?

How does participating in IPE programs contribute to faculty members' attitudes toward IPE inclusion in curriculum?

How does participation in IPE programming impact faculty members' perceptions of their role in conducting IPE programming?

What do faculty learn from their participation in IPE programming?

Rationale for the Study

This study aims to understand how faculty experiences during initiation, developing, delivering and assessing IPE programs affected their social identity and attitudes toward IPE. Current global demands for collaboration between health care teams require IPE to be initiated at the educational level. The challenge in many health programs is motivating faculty to initiate and follow-through with IPE programming. It is important to understand from faculty who have participated in IPE programs how their experiences shaped their social identity and their attitudes toward IPE.

Researcher Assumptions, Study Limitations and Scope

The effects on the social identity of faculty who are involved in IPE program development may or may not transform their views about IPE. As someone who has had her

social identity views transformed because of the process, the researcher will have to abstain from any bias when analyzing the collected data to ensure that positive and negative aspects are considered in the final results.

One limitation to the study is not having full representation of all health disciplines. However, the social identity theory and transformative learning theory assist in generalizing the findings to all health professionals despite their discipline. Also, researcher objectivity and bias are a point of discussion related to maintaining credibility, dependability and transferability of the study's findings. However, a systematic process including interventions to minimize these limitations during analysis were established by the researcher.

The scope of the study includes all health professional instructors who have participated in what they deem successful initiation, development, delivery and assessment of IPE programming at any graduate level health program. If IPE programming was not deemed successful by the participant, then this information would be helpful in the data analysis related to how this experience effected their social identity and attitude toward IPE. While the programming details will not be a focus, the process related to IPE programs will guide personal reflection through identifying successes and challenges. It was necessary to establish the effects of this process on faculty perceptions of the experience, their social identity, and their attitudes toward IPE.

Definition of Terms

Interprofessional collaborative practice: "When multiple health workers from different professional backgrounds work together with patients, families, carers, and communities to deliver the highest quality of care" (WHO, 2010).

Interprofessional education: "When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (WHO, 2010).

Significance of the Study

Understanding the benefits of IPC alone has not motivated the number of faculty needed to initiate IPE among all the health disciplines. Now with the accrediting requirements including IPE, it is imperative that faculty begin to initiate and develop the programs necessary to meet the standards. However, if faculty members establish a solid commitment to the process, then the quality of programming could develop consistently.

There are faculty who champion IPE and continue their efforts year after year. Understanding the experiences of these faculty helps us to understand how IPE shapes faculty social identity and their attitudes toward IPE. If IPE program experiences directly impacts faculty positively, then the potential exists for inexperienced faculty to participate in IPE programming. It is necessary to understand faculty's perceptions of the experience of IPE to find ways to reach faculty not currently implementing IPE.

Conclusion

Global health care systems are benefitting from the practice of IPC (World Health Organization, 2010). The global mission is to introduce health care professional students of all disciplines to interprofessional practice through IPE during their training (World Health Organization, 2010; IPEC, 2011). Despite the increased standards to include IPE in many health education curricula, the motivation for faculty to participate in IPE programming has proved to be a challenge (Lash et al, 2014; Zorek & Raehl, 2012). However, there are faculty who do

participate in IPE delivery, but there is no evidence about how their experiences have effected their professional development related to their social identity and their attitudes toward IPE.

The purpose of this study is to identify the effect that IPE participation has on faculty members' social identity and their attitudes toward IPE inclusion in curriculum. The role that IPE plays in healthcare education will continue to grow with the increasing accreditation standards and health policy demands. While IPE is currently at a transitional point in health care and has been met with some resistance, education and experience is the best approach to move the global health care team initiative forward (World Health Organization, 2010).

CHAPTER 2

LITERATURE REVIEW

The purpose of this multiple-case study was to understand how faculty participation in initiating, developing, delivering and assessing IPE in the didactic preparation of health professional students affects faculty social identity and their attitudes toward IPE. Specifically, the author investigated faculty experiences, critical reflection, and personal development during each stage, as described by the transformative learning theory (Sargeant, 2009). This review of the literature is an ongoing process of developing a critical review of the content that was continued throughout the process of data collection, data analysis, and final synthesis of the study.

Interprofessional education was first identified in an article written in 1969 titled "Interprofessional Education in the Health Sciences" (Fransworth, Seikel, Hudock, & Holst, 2015). The authors suggested that patient care was fragmented by a lack of communication between health professionals and therefore health care was less efficient. Then in the 1970s, the World Health Organization (WHO) initiated a global movement to implement interprofessional collaboration (IPC) in all health systems. The movement led to the initiation of interprofessional training for clinical health professionals all around the world and called for the integration of interprofessional education (IPE) among students in health programs. Despite WHO's efforts, the discussion on IPE didn't become serious until the late 1980s when the Centre for Advancement for Interprofessional Education (CAIPE) was established in the United Kingdom. This institution continues to lead the efforts of improving IPC through implementing IPE in the universities and the workplace. Their scholarship efforts in interprofessional care have been advanced by the establishment of the Journal of Interprofessional Care (Fransworth et al., 2015).

In the United States, the discussion for implementing health care teams and IPE broke open in the early 2000s when the Institute of Medicine (IOM) reported on the less than perfect state of health care quality, patient safety and professional health education. The American Interprofessional Health Collaborative (AIHC) was initiated to address those health care quality and safety concerns (Fransworth et al., 2015). The National Center for Interprofessional Practice and Education was formed in 2012 to further advance the integration of IPC in the academic institutions and health care facilities. The organization works to engage health professionals in understanding the value of IPC and provides resources for integrating IPE.

Interprofessional education was first defined by the CAIPE in the mid-1990s as, "occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care" (Fransworth et al., 2015, p.1). Multidisciplinary education was defined as "occasions when two or more professions learn side by side for whatever reason" (Fransworth et al., 2015, p. 2). Uni-disciplinary education involves learning about only one profession. Since the establishment of these definitions, there have been a variety of views regarding the process of implementing IPE.

This review of literature was conducted using many information sources, including peer-reviewed journals, books, dissertations, websites and internet resources. These resources were accessed using multiple databases, including Ebscohost, CINAHL, Google Scholar, and the PT Journal search engine. The time frame for searches was 2006-2017. Keywords included: interprofessional education, interprofessional collaboration, teaching models, curriculum fit, health care teams, physical therapy students, occupational therapy students, interprofessional education assessment, interprofessional learning, transformational learning theory. No other criteria were required in the search for literature.

Throughout the literature review, the researcher identifies the current evidence supporting the integration of IPE in health professional programs using multiple models of curricula fit and teaching methods. The researcher highlights the gaps within the literature regarding faculty development support related to IPE implementation. Each section identifies research implications related to the critical review. The conceptual framework was developed and defined based on the literature review. The conclusion of the chapter summarizes the literature review findings and the relationship to the research questions.

The Process of Interprofessional Education Programming

To better understand faculty perceptions related to IPE integration, three stages specific to the process of IPE integration are considered (see Figure 1): (a) initiating IPE, (b) development of IPE programming and (c) assessment of IPE. Understanding the initiation process for IPE provides an understanding of the foundation required to implement IPE program development. Furthermore, this section reviews the WHO's Framework for Action to identify the necessary components to initiate successful IPE programming. A review of current curricular models used in health programs was conducted and established core competencies for IPE programs were identified to develop an understanding of the multiple factors considered in developing IPE programs. Lastly, multiple assessment tools have been created to assess the outcomes of IPE programming related to the student's development in understanding and appreciating IPE. A review of the most common assessment tools found in the literature creates an understanding of how outcomes are assessed by faculty.
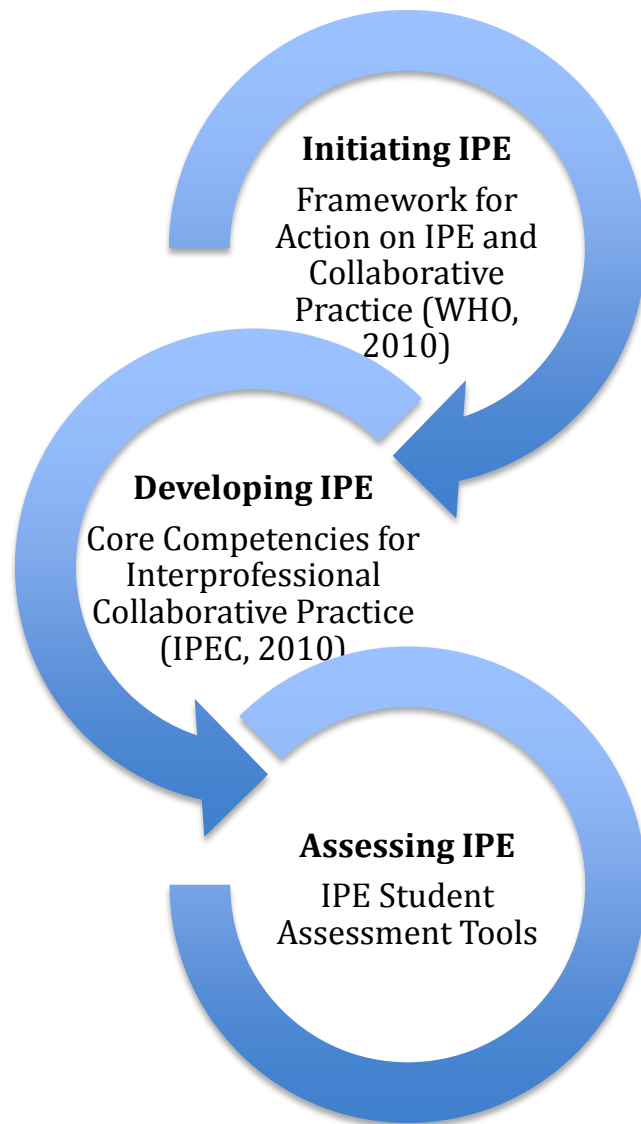
Figure 1. Integration of IPE. This figure presents the IPE process and the current guiding frameworks for each stage.

Initiating Interprofessional Education

The WHO identifies IPC as the comprehensive care provided by multiple health professionals (World Health Organization, 2010). The current situation in health care involves training health professionals in IPE at the workplace. However, the integration of IPE within health programs creates a promising scenario that encourages new graduate health professionals

to work in health care teams without further interprofessional training needed (see Figure 2).

Furthermore, their ability to function as a team member with ease assists less IPC experienced

practitioners in observing their communication skills and technique. As IPC improves within

health care facilities, it will lead to the improvement of health care quality and patient safety.
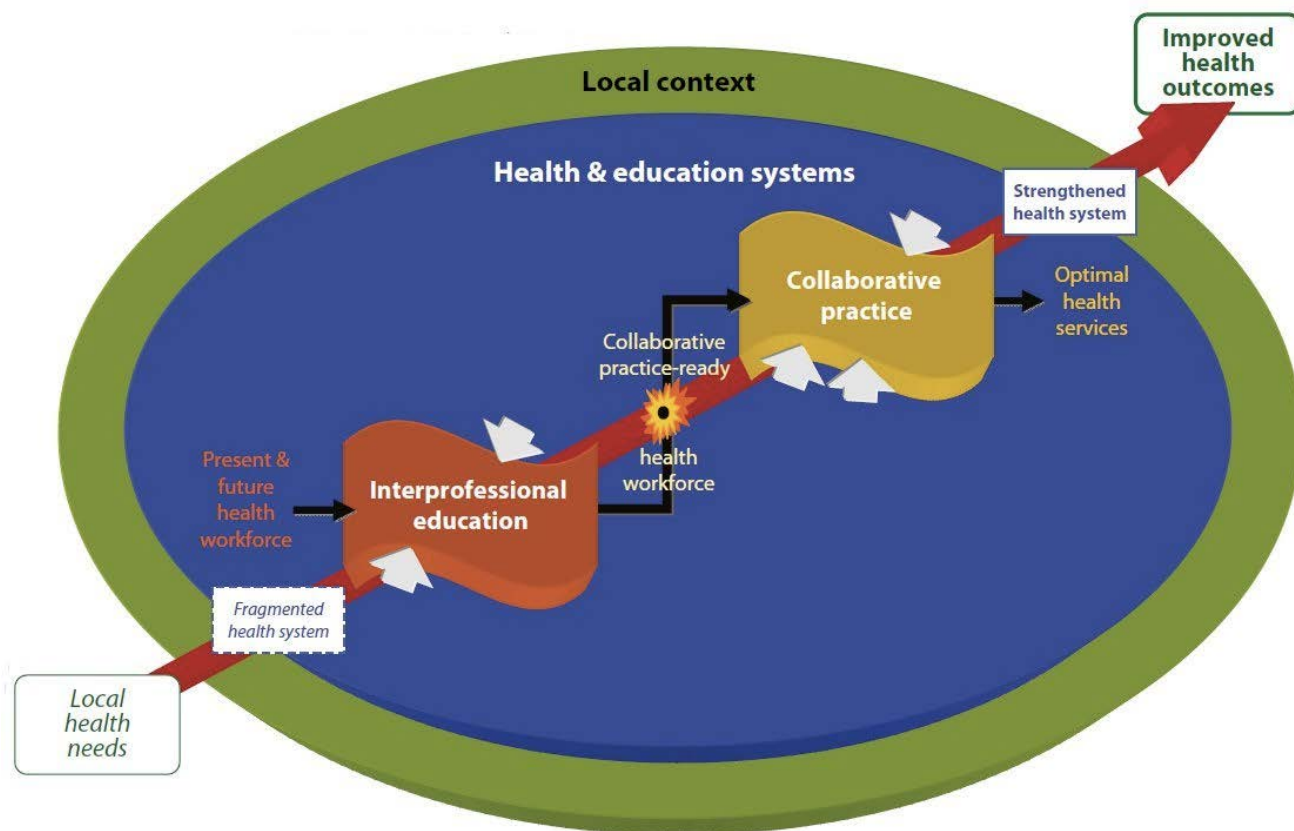
Figure 2. Health and Education Systems (World Health Organization, 2010). This figure

demonstrates the process of implementing IPE to promote IPC in health systems, which leads to

improved health outcomes.

Benefits of Initiating Interprofessional Education

In 2007, the Institute for Healthcare Improvement (IHI) initiated concept of the "Triple

Aim" with the goal of improving three areas: patient care experience, the health of the general

population and reducing the cost of health care per capita (Institute for Healthcare Improvement,

2009). The signing of the Affordable Care Act into law in 2010 further solidified the inclusion of IPC to meet the goals for the "Triple Aim" through the initiation of Accountable Care Organizations. Interprofessional collaboration is part of the US health care system and health professionals are expected to perform in health teams. Initiating IPE in entry-level programs sets the stage for the future of health care and encourages carry-over into the field. Current statistics support significant benefits from the current implementation of IPE in the global health system.

Hospital patient care. There have been significant improvements in the quality of patient care in health systems around the world because of IPC. Patients are experiencing more efficient care coordination and receiving necessary specialty services sooner (World Health Organization, 2010). Overall IPC has directly benefitted health outcomes of people all over the world, especially those suffering from chronic illness. Specifically, interprofessional collaboration has reduced the rates of readmissions and complications. In turn, this reduction has reduced the average hospital length of stay. Implementation of IPC has even reduced the rate of clinical error (World Health Organization, 2010). Patients are receiving better health care when IPC is utilized because the health providers are communicating more effectively.

Primary health management. Primary health is a point of patient care that can facilitate the interprofessional collaborative approach early on in the disease process. Giscard, Espin, Morganti and Dorado (2016) studied a model of interprofessional teams aimed at providing diabetic care for people with a new diagnosis of type II diabetes. The team utilized an assessment that identified the patient's level of diabetes self-care, diabetes knowledge and lifestyle habits. Each provider had access to the scores of the assessment and used the responses to reinforce the information on management of the disease and patient education. The conclusion was that team "huddles" were beneficial to addressing individual patient care cases

and issues (Giscard et al., 2016). The team approach provides a picture of the patient's health from many different angles.

Health care costs. The cost of health care is high, especially in the United States. Improvements in patient care resulting from IPC correlate directly to a reduction in the cost of care. For example, patients are less likely to receive unnecessary tests (World Health Organization, 2015). The impact extends far greater than health care costs alone because patients who have a better recovery from injury or illness are able to return to work and personal responsibilities sooner. As a result, fewer people are resorting to medical bankruptcy and suffering from medical debt. The reduction in health care costs is a direct result of the improved outcomes of patient care. This further supports that implementing IPC leads to a positive economic impact globally.

The benefits to health care related to IPC have not come without challenges. Transitioning health care into implementing IPC at the clinical level has proved to be difficult to break the culture of isolated professional practice (Hall, 2005). The pressure toward integrating IPE into health professional programs has never been greater because of the demand to prepare new health professionals for health care team work before they enter the work force.

IPE in Health Professional Programs

The benefits to integrating IPE are important to improve the quality of health care globally. However, integrating IPE has not been easy for most health professional programs. While many successful curricular-inclusion models are described in the literature, there are still less than adequate implementation of IPE throughout health profession programs around the world. Zorek and Raehl (2012) reviewed outcomes established by accrediting bodies of 21 health disciplines in the US. Their analysis was based on classifying accrediting standards as

holding the programs accountable for IPE or non-accountable standards that were not outcome based. Nursing, pharmacy and physical therapy demonstrated the highest number of accountable statements in their accrediting requirements. However, dentistry, medicine and occupational therapy trailed significantly integrating only one accountable statement to support IPE in accreditation requirements for their programs (Zorek & Raehl, 2012). With the policy changes now requiring IPC action in health care, the accrediting bodies have initiated changes that require all health programs to demonstrate integration of IPE.

Framework for Action on IPE and Collaborative Practice

The WHO issued a report in 2010 titled Framework for Action on Interprofessional Education and Collaborative Practice (World Health Organization, 2010; Fransworth et al., 2015). The report identified that, while IPE is occurring in many countries, it is apparent that IPE is implemented differently and to varying degrees throughout the professional programs globally (World Health Organization, 2010; Fransworth et al., 2015). A framework was established to identify the necessary components of six actions to successfully initiate IPE in the clinical environment and in education programs.

Common Vision and Purpose for IPE

The first action for successful initiation of IPE includes all key stakeholders and requires agreement on the vision and the purpose of IPE (World Health Organization, 2010). From an educational standpoint, the key stakeholders are the faculty championing the program and the students. However, administrators need to be included in the development of the vision and understanding the purpose for IPE. Oftentimes it is the champions from each discipline that are striving to meet the needs of their individual curriculum, but it is essential that there is a common vision that guides the process.

Develop IPE Within Curriculum

The development of IPE within curricula from multiple health professional programs is often a tedious practice. The second action framework asserts that creating IPE in curricula using the resources available, while also addressing the community needs, is an important factor in the development process (World Health Organization, 2010). It is important that programs demonstrate quality and effectiveness. Recall that the definition of IPE is when two or more disciplines learn with, from or about each other. It is more than putting students together in a room and talking to them. There needs to be a focus on developing their ability to work as a health care team.

Organization Support

The third action framework acknowledges that development of IPE requires time and resources related to training and financial support from organizations (World Health Organization, 2010). The involvement of multiple health professional programs requires significant time to address the development process of IPE programming. Also, the need for financial resources provides a cushion to incorporate more activities in the program. The one aspect of organization support that is less discussed in the literature is the need for faculty development training in IPE. Faculty attitude toward IPE is a good indicator that faculty will follow through in delivering IPE (Lash, Barnett, Parkh, Shieh, Louie, & Tang, 2014). A faculty survey among multiple disciplines identified that faculty were more likely to implement IPE if interprofessional training were provided and if there were less curricular restraints (Lash et al., 2014). Unfortunately, IPE faculty development is not always available and the champions leading the IPE program initiative are taxed to find a way to find a curricular fit.

IPE in Training Programs

The fourth framework action asserts the necessity of incorporating IPC in on-the-job training (WHO, 2010). Clinical education is the opportunity to apply the IPE skills learned in the classroom. The need for health facilities to bridge IPC in practice is key in successfully implementing skills learned in the classroom. Often IPC, although mandated by health policy, varies from facility to facility. It is difficult to assert student participation in IPC when the opportunity is not available. Current IPC practice in health care facilities continue to develop in quality and effectiveness, just as it is in university programs.

Competence in Development and Evaluation of IPE

The need to reflect on experiences and learn from one another is a significant resource in building competency in delivering IPE and is the fifth framework action identified (World Health Organization, 2010). The development of IPE facilitates a change in health care delivery. However, objectively assessing this change following IPE training is necessary to ensure the quality of programming. The challenge becomes identifying the best means to establish and assess the quality of IPE. There are many tools that have been developed, but their effectiveness in measuring true competency remains limited, particularly related to graduate-level education programs.

IPE Leaders Demonstrate Positive IPC

It is the leader that demonstrates the possibilities of the task. Establishing an IPE champion is the sixth framework action. The IPE champion's ability to model positive change leads to the attitude change of others toward interprofessional work and improves communication (World Health Organization, 2010). Considering the results from the efforts of one or two leaders, it is a concern that consistency in IPE programming relies on their constant

commitment to the programs. Initiating IPE is more than an idea, it is an interprofessional collaboration in and of itself. It requires commitment from the organization and key players involved in the process. The actions detail competency, organization support, and training to encourage successful initiation of IPE programs. The initiation process leads to the development of IPE and it is imperative that a strong foundation has been established to support the future structure. There is limited literature that identifies the faculty experience in initiating IPE programs, especially regarding the action components in the Framework for Action for IPE and Collaborative Practice (World Health Organization, 2010).

Developing IPE Programs

Once IPE programming is initiated in health professional programs, the faculty work to develop the program. First, the faculty implementing the IPE determine how the program will fit into the curricula for each health professional program. There are many models in the literature that have been described as successful, but it continues to be a great challenge to integrate IPE within varying curricula. Second, a high quality of IPE programming is necessary to achieve an effective IPE program. As a result, core competencies have been established as a guide in understanding the components necessary for quality IPE program development. A good curricular fit coupled with meeting the core competencies builds a strong and effective IPE program.

IPE Curricular Models

There have been many successful IPE models implemented by health education programs. Implementing IPE is a process and students benefit from a process related to developing their professional identity, understanding other professionals' identities and working together to apply a team-based approach to a patient scenario. The challenge becomes

integrating IPE into curricula that are diverse in coursework, clinical education timelines and programs of variable lengths of time. However, the literature demonstrates many options for programs to integrate IPE into any situation. The only necessary piece in the puzzle for success is having dedicated faculty to champion the implementation process.

Centralized interprofessional education model. Students in the health sciences share required basic coursework. Centralized interprofessional education models are easiest to apply in basic courses. Swisher, Woodard, Quillen & Monroe (2010) implemented a centralized model between first year physical therapy and first year medical students (see Figure 3). Initially the basic science course instructors did not facilitate interprofessional development because they were not aware of the roles for each profession. The authors report that faculty from the two departments worked closely with the course instructors to develop course activities and interprofessional questions for exams.

Strengths & Weaknesses. Utilizing this form of IPE model fits well into the curricula for required coursework among multiple health programs. This model encourages sustainability of the IPE and faculty are involved in learning about IPE (Swisher et al., 2010). However, the authors report that implementing this model was time consuming for all faculty involved and it was difficult to receive approval for the courses due to its innovative approach. In this case, the need for a champion from each program was necessary to lead the cause in promotion of IPE leadership (Swisher et al., 2010).
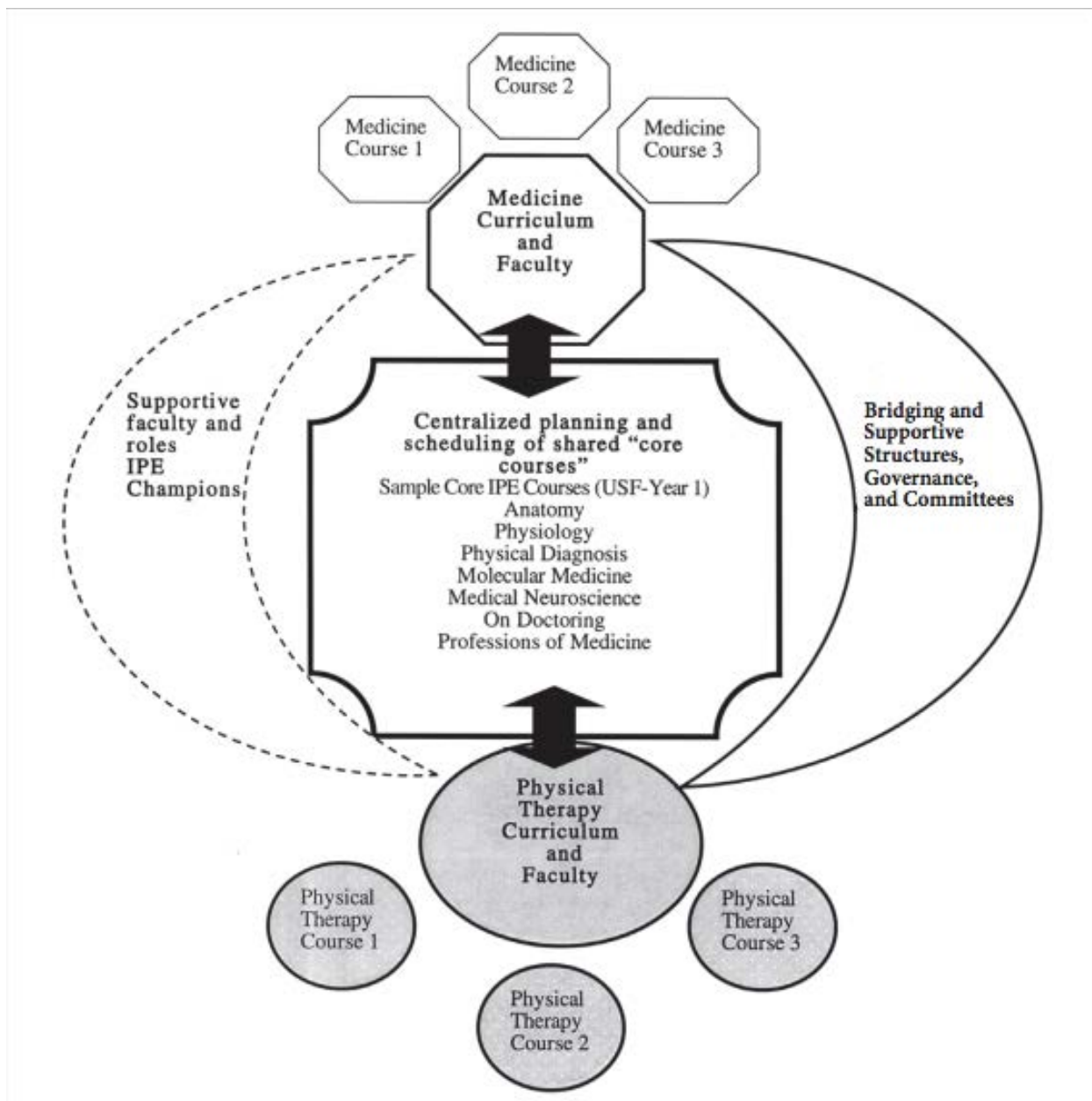
Figure 3. Centralized IPE Model (Swisher et al., 2010). This figure presents an example of a centralized model for IPE.

Decentralized interprofessional education model. Decentralizing IPE is a popular approach that reduces the need for concrete coursework to be shared among the professional programs. Instead, interprofessional learning experiences (IPLE) are the means to encourage IPE without disrupting curricula (see Figure 4). The one consistent requirement for IPLE to be

successful is for each discipline to have a faculty champion to ensure implementation at the appropriate point of curriculum and follow through. Recent literature suggests a number of programs are implementing a decentralized approach to IPE integration.

Saini, Shah, Kearbey, Bosnic-Anticevich, Grootjans & Armour (2011) report a 3-day module for asthma health education that incorporated problem-based learning, exchange-based learning, action-based learning and experiential learning. The first day incorporated case-based interaction between pharmacy, medicine and nursing students, facilitation of professional identity descriptions and learning about asthma related to adolescents. Day 2 incorporated training for the students to become asthma educators and the third day the students presented information related to asthma health promotion to high school students, followed by a debriefing. The authors concluded that students' attitudes related to healthcare teamwork and their readiness to participate interprofessionally increased significantly following the interprofessional activity.

Bagatell and Broggi (2014) concluded from a 6 hour IPE module that took place over a 3-week period between occupational therapy and physical therapy students that positive changes in students' interprofessional perceptions can occur in the short-term IPLE. The module included video case studies that were viewed by occupational therapy and physical therapy students. The students completed the Interdisciplinary Education Perception Scale before and after the activity. The results indicated the difference between the pre- and post- scores were statistically significant. The findings were further supported by reflective comments provided by the students in a written paper.

Strengths & weaknesses. Implementing a decentralized IPE model is less rigid and can be implemented in two separate disciplinary courses. There is less risk for IPE programming to need administrative approval, unlike with a centralized model (Swisher et al., 2010). Swisher,

Woodard, Quillen & Monroe report that sustainability of an IPLE depends on the faculty,

consistent curricular design for the professional programs, and a professional culture that

supports IPE.
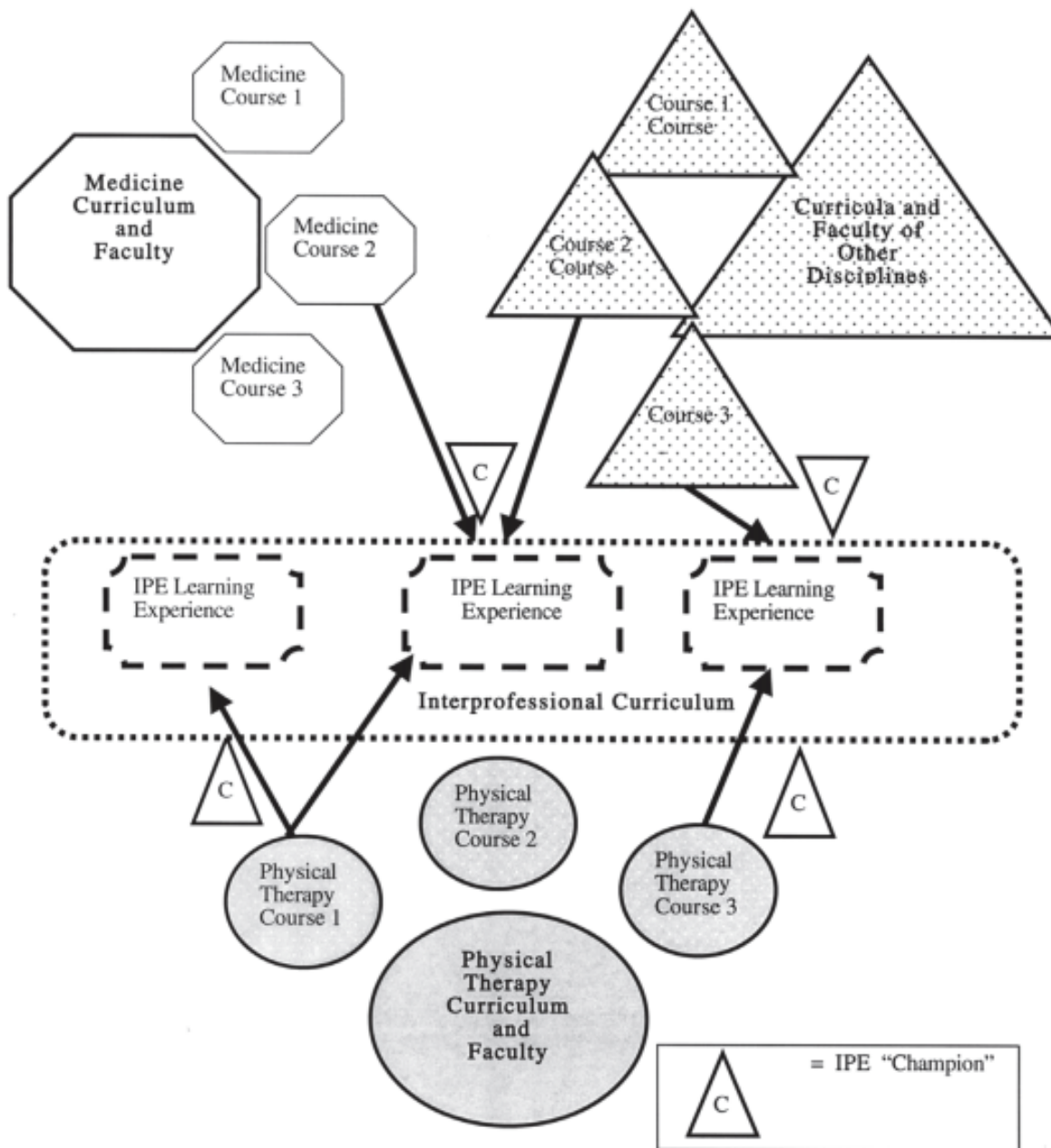
Figure 4. Decentralized IPE Model (Swisher et al., 2011). This figure presents an example of a decentralized model for IPE.

IPE Competencies

In 2011, the Interprofessional Education Collaborative (IPEC) developed a report titled Core Competencies for Interprofessional Collaborative Practice. The goal for developing competencies for health education programs was to coordinate IPE among the disciplines and support the programs in developing IPE programming to promote successful future IPC through enhancing scholarship (Interprofessional Education Collaborative, 2011).   Despite efforts to merge IPE into health programs, challenges continue to limit its implementation.

The first competency addresses the values and ethics for interprofessional practice (Interprofessional Education Collaborative, 2011). The emphasis on interprofessional values and ethics reduces the focus on each health provider acting with self-serving tendencies and highlights the value that each profession brings to patient care. The second competency is related to the health provider's role and responsibilities. This initiative encourages professionals to share each other's skills and how their role can contribute to patient centered care. Furthermore, the team will identify how each person's contribution benefits another, creating collaborative processes.

The third competency relates to interprofessional communication (Interprofessional Education Collaborative, 2011).   General communication skills are encouraged, such as active listening skills and conflict resolution. However, developing a common language among health care teams is necessary to understanding the interprofessional reporting that is done. The final competency addresses teams and teamwork. This domain offers areas to develop team efforts

and includes methods for continually developing collaborative processes, such as evaluation of the team efforts.

In summary, curricular fit a common challenge in implementing IPE. However, the centralized and decentralized approaches provide the space to adjust course development as needed. Once the curriculum has been adjusted to accommodate IPE, it is imperative that the IPE program demonstrates competency in the four areas regarded as key factors in student development in IPC. Some programs may limit student development in one or more of these competencies. For example, an IPE program may be implemented too early in the process for students to fully understand their own professional role and responsibility. Or, a program could not develop all the areas required to achieve competency. There is a need to understand faculty perceptions related to developing IPE programs and hear their experiences of success and challenge.

Interprofessional Education Assessment

Students from 25 disciplines across North America were asked why they were interested in IPE and the top three responses were to provide better patient care, enhance the students' future career and for the students' own personal curiosity (Hoffman, Rosenfield & Nasmith, 2009). When asked how they learned about IPE the top three responses included from a personal discussion with another individual (faculty or friend), participating in an IPE student group and attending an IPE conference (Hoffman et al., 2009).

Although students naturally identify the benefits of IPE, it is important to establish an assessment strategy to determine their growth in the areas for developing skills in IPC. A number of tools have been developed, such as the Readiness for Interprofessional Learning Scale (RIPLS), which assesses the student's level of readiness for interprofessional collaboration. The

assessment process provides the faculty with the information about the effectiveness of IPE programs and possible areas for further development.

Assessment tools. Students relate IPE with improved patient outcomes, but it is necessary to assess their readiness to participate in IPC. In 1999, Parsell & Bligh developed the RIPLS survey. Three main sections of the survey are highlighted to determine health science students' readiness for IPC. The first section generates questions based on teamwork and collaborative effort. The second section identifies the students' understanding of their professional identity. The final section determines the students' understanding of professional roles and responsibilities. The RIPLS is an important tool to assess and measure student growth in developing skills related to IPC.

Students studying medicine, nursing, occupational therapy and physical therapy completed the RIPLS and scored similarly in the areas of teamwork and professional identity. However, medical students scored higher on the assessment categories related to understanding their roles and responsibilities (Rose et al., 2009). This suggests that students from the other disciplines need to have a better understanding of their roles and responsibilities in the health care team (Rose et al., 2009).

The Health Professional's Developing Identity

Professional identity plays a significant role in interprofessional collaboration. The identity of the health professional is initiated in the stage of education and continues to develop throughout their career. Interprofessional collaboration challenges the professional identity of seasoned health professionals because it blurs the lines and boundaries that are the focus in a unit-discipline approach to clinical practice. The process of developing the professional identity from student to clinician is helpful in identifying the role of IPE in supporting this process.

Interprofessional Education and Students' Professional Identities

Students understand the value in working in health care teams (Hoffman et al., 2009). The challenge is preparing students in the classroom to perform up to the expectations of the clinical setting. The students' ability to effectively contribute in a group hinges on many factors, including personal communication style. However, educational programs are charged with the task to socialize students so they develop their professional identity. Once professional identity is established, the student is then able to effectively contribute to health care teams, especially when overlap often occurs (Lindquist, Engardt, Garnham, Poland & Richardson, 2006).

Socialization. Professional values and ethics guide most health care professionals. To develop commitment to the profession, health professional programs often emphasize increasing students' awareness and practice in the foundational principles in the professions' core values. This practice would be considered *purposeful socialization* (Lindquist, et al., 2006). One would consider the education of the professional principles should contribute to the students' professional identity. However, there has been increasing support that students' development of professional identity occurs more so during their patient experiences (Lindquist et al., 2006). Crossley & Vivekananda-Schmidt (2009) created and investigated the Professional Self Identity Questionnaire (PSIQ) in the UK to measure the evolving professional identity of health and social care students. The authors determined that the nine-question survey was valid after testing it on medical students and reaching statistical significance ($p < 0.05$). Specifically, previous health care experiences for the medical students was linked to higher ratings in questions related to professional identity, teamwork and ethical awareness. This suggests that students develop greater professional skills that are essential to IPC from direct clinical experience.

Effect of Interprofessional Education on students' professional identities. Lindquist et al. (2006) investigated physiotherapy students' professional identities just before graduation. They interviewed eight students from the UK and ten students from Sweden. The students from the UK participated in IPE through completing coursework with occupational therapy students, and the students from Sweden experienced IPE through having a multidisciplinary faculty tutor them during their clinical experiences. Three professional identity categories were identified and equally represented by six students in each: the treater, the educator, and the empowerer (Lindquist et al., 2006).

The Treater. The treater is focused on the impairment and using only tools available in their setting (Lindquist et al., 2006). Because of the focus on impairment-focused physical therapy treatment, the incorporation of IPC is non-existent. The treater could be considered the student who continues to perform more at the knowledge and skill level, as opposed to their ability to integrate their skills with the patient's goals.

The Educator. While the educator is also patient-centered, this person is also focused on prioritizing treatments when faced with limitations of time or resources (Lindquist et al, 2006). This person is likely to work with a rehabilitation team but incorporates more intervention based on their clinical competence (Lindquist et al., 2006). The educator could be considered the student who performs at the knowledge and skill level but demonstrates less developed abilities to integrate their skills with the patient's goals.

The Empowerer. The empowerer emphasizes patient-centered care in their intervention without a focus on time limitations (Lindquist et al., 2006). This person believes that interprofessional involvement is a vital aspect of a patient's outcome potential and seeks out

resources. The empowerer is the professional identity that all educators hope to develop in students.

The varying level of professional identities in the physiotherapy students, despite the type of IPE experience, suggests that IPE would not play a significant role in the development of students' professional identity. However, Lindquist et al. (2006) did note that students from the UK identified more as an educator and the students from Sweden identified more as a treater or an empowerer. This is interesting since the students from the UK shared a course experience with occupational therapy students for their IPE, whereas the students from Sweden experienced tutelage from multidisciplinary faculty during their clinical experiences. Their exposure to multidisciplinary faculty to reflect on their clinical experiences most likely contributed to the greater number of students who identified as empowerers. However, those who identified as a treater may have had negative experiences and therefore felt more comfortable performing at the impairment level only (Lindquist et al., 2006). Interprofessional socialization (IPS) includes having students work in teams with students from other disciplines to reinforce the interprofessional experience and promote students to form a dual identity (Khalili, Orchard, Laschinger & Farah, 2013).

When considering transformation and personal development of students as they become health professionals, one should consider Professional Identity Formation (PIF). Wald (2015) suggested "professional identity (trans)formation" as a term because professional identity is continuously developed through one's professional journey (p. 1). Wald quotes Holden and colleagues' definition of PIF as

> the transformative journey through which one integrates the knowledge, skills, values,
>
> and behaviors of a competent humanistic physician with one's own unique identity and

core values. This continuous process fosters personal and professional growth through

mentorship, self-reflection, and experiences that affirm the best practices, traditions, and

ethics of the medical profession. The education of all medical students is founded on PIF

(p. 2).

While most of the literature related to PIF pertains to medical students, the foundation for

PIF and its framework can be applied to all health professionals. The greatest focus on PIF is

during professional training experiences. However, considering PIF to be ongoing, it plays an

important role in continual professional development of health professionals' identity.

Interprofessional Collaboration and Health Professionals' Professional Identities

Health professionals are at a point of transition from the uni-disciplinary model for

patient care to IPC model of care. While there have been direct benefits of IPC, there is a

growing concern that there is a blurring of the lines between the professions that could offer a

negative effect to patient care (Baxter & Brumfitt, 2008). A strong awareness of professional

identity and functional group dynamics is important to develop within a health care team to

ensure successful patient care (Bartunek, 2011; McNeil, Mitchell & Parker, 2013).

Threats to Professional Identity. Professional identity is a piece of the puzzle when

discussing teamwork among multiple health disciplines. The social aspect of the group leaves

room for stereotyping and social categorization among team members (McNeil et al., 2013).

Often conflict occurs and intergroup anxiety will develop as a result. Understanding the roles of

each discipline and respecting those roles is one way to avoid negative social discourse among

team members.

McNeil et al. (2013) identified triggers of social identity conflict as follows: differential

treatment, different values, assimilation, insult or humiliating action and simple contact.

Differential treatment triggers conflict when professions receive unequal treatment. When professions have different values related to what is considered normal versus abnormal, or what is right versus wrong, this disparity can cause conflict within the group. Assimilation creates intolerance among professionals when one professional thinks the others will think and act like them. Naturally, an insult to devalue another professional or profession will trigger a conflict. Finally, simple contact triggers conflict when there is tension present in the group that is causing polarization among the members (McNeil et al., 2013). The value of the professions working together benefits the patients but group dynamics are key in the group's success.

Group Dynamics in Interprofessional Collaboration. Socialization occurs within each profession to develop a common professional identity. However, many factors outside the profession contribute to the development of professional identity. The environment in which the professional works, the policies that dictate work expectations, and the other professions they interact with help to form and transform a person's professional identity (Bartunek, 2011). Three areas of focus for promoting successful health care team collaboration are members' social identities, communities of practice and socialization (Bartunek, 2011).

Social identity. Health professionals have a professional identity immersed in their professional role and values. Each health care practitioner's professional identity is different than other professions and could lead to challenges within a group. However, when considering interprofessional teams, encouraging the members to develop a dual identity that incorporates their professional identity with the social identity of the group is helpful (McNeil et al, 2013). A dual identity builds a common identity with shared values and roles among the various group members while members can remain loyal to their profession.

Communities of practice. Interprofessional groups need to have guidance to establish open and effective communications. Health care facilities must create an environment that supports interprofessional collaboration through training programs for all employees (McNeil et al., 2013). While minimal research supports that these training sessions benefit the socialization of interprofessional groups, the training sessions are a means to improve communication between low ranking members and high ranking members (McNeil et al., 2013).

Socialization. As with professional identity development occurring with socialization within a profession, there is opportunity for the interprofessional group to develop an identity through socialization within the group (McNeil et al., 2013). The group needs to find solutions to its challenges and, like any process, the group will improve their skill with experience. It is important that leaders within the group foster an environment that encourages equal input from all group members, especially when conflict arises.

Health Professional Faculty's Professional Identities

The transition from clinician to academician is a significant career change that shifts one's professional identity. While there is a difference in the work focus, there is also a difference in the community of practice and socialization. Murray, Stanley and Wright (2014) completed a qualitative meta-synthesis to investigate the common themes of nursing and allied health professionals transitioning into academia. They determined that the central theme of the seven articles they critically appraised was identity shift with four key phases during the first three years of the transition.

Phase One: Feeling New and Vulnerable. The initial impression of transitioning into academia is of discomfort and frustration (Murray et al., 2014). The self-doubt develops as a result and the fear of vulnerability builds. The professional identity is at a crossroads from

leaving the expert role and moving into this new environment without the skills developed previously. Reverting to clinical practice input is often a means to maintain some of that professional identity.

Phase Two: Encountering the Unexpected. New faculty members in health programs reported feeling under-prepared for the level of expected performance in their teaching duties (Murray et al., 2014). During this stage, the participants identify that they noticed a significant contrast with their professional identity from the clinical setting. The socialization process is likely changing the person's social identity and conflicting with their professional identity that has been ingrained in them since their entry-level education.

Phase Three: Doing Things Differently. This phase is a significant phase for the identity shift to occur because most of the articles identified a realization for a change in the focus of the new faculty work. The findings suggest that a theme was found that new faculty's practiced client-centered care prior to teaching but found a less centralized approach to working with students (Murray et al., 2014). The teamwork approach was less evident in the academic setting and forced the new faculty to move forward in a lesser known direction of independence.

Phase Four: Evolving in to Academic. The final phase of evolving into their new identity of academicians is suggested to occur when the person is ready to call themselves a member of the faculty (Murray et al., 2014). Their clinical life has evolved into less time in practice and more time in the classroom. This final phase presents a shift in professional identity that occurred because of mentorship, increased confidence, and establishing a support system among newer faculty.

The dual identity of faculty is key to their ability to function both in the clinic and in the classroom. It is important to not undervalue the loss of regular team focused work expressed

within the critical appraisal reviewed. Incorporating teamwork tasks both interprofessionally and uni-professionally is a standard in most curriculums. However, based on the recent clinician's experience moving into academia, it is suggested that the important skill of teamwork may be lost by faculty.

<center>**Conceptual Framework**</center>

The future of IPC is a permanent practice in global health care systems and shows significant patient care and economic benefits. The current transition into IPC practice requires IPE in the workforce and demands effective quality IPE programs in the education programs. Despite the many challenges in shifting toward implementing IPE within programs, faculty are responsible in leading the efforts. It is important to understand how participating in the process of IPE programming shifts the identity of faculty and establishes if personal development through critical reflection occurs. The social identity theory (SIT) and the transformative learning theory (TLT) will guide the process of framing and answering research questions.

Social Identity Theory

A person's identity generates who they are and how they interact with others. People who share identities are often attracted to one another to share their similar beliefs and values. When considering professions, identity is a key factor in establishing definitions of roles and responsibilities. When identities between two professions are blurred, negative discourse has the potential to develop. Social identity theory is helpful to understand the inner workings of intergroup behavior as it occurs with interprofessional health care teams (Hogg & Reid, 2006).

Social identity theory was developed from social psychology and focuses on an individual's perception of their identity within a social group (Burford, 2012). A social psychologist named Henri Tajfel developed the theory in the 1970's. The SIT supports the idea

for a dual identity in that it acknowledges an individual component and a group component. The major component of categorization is to understand who is in each category within the group. The categorization of a group allows for potential conflict to develop. Considering the effects of categorizing within a group, often favoritism and stereotyping occur (Burford, 2012).

Social Identity Saliency. Accessibility and fit are the two components that determine social identity saliency (Burford, 2012). People join groups that are accessible to them based on the qualifications of the participant. For example, a physical therapist would work at a hospital rather than an architecture firm. Whereas fit pertains to how a person matches with the groups' identity (Burford, 2012). If the group does not fit with the person for many reasons, then the person will continue to move on to find the group with the best fit for their professional identity (Hogg & Reid, 2006).

Transformative Learning Theory

Having faculty lead the initiative toward integrating IPE is the single most important factor that must be fostered and developed to maintain consistent quality IPE programming. The current challenge remains having champions in each health program who are willing to implement IPE. Understanding faculty perceptions throughout the process of implementing IPE, highlights how the experiences have transformed their perception of IPE. The TLT guides this initiative through addressing the changes that occur within faculty from the IPE experiences in each stage of the development (see Figure 5).

Mezirow (1997) identified four ways people learn, specifically related to ethnocentricity. First, a person can hold a point of view and develop a deeper level of support and validate their belief. A second way people learn includes identifying new thoughts or views that are different from their initial impressions. Third, perceptions, opinions and views can change altogether

about a specific group. The fourth and least common way includes developing a greater

awareness of our own biases toward other groups of people.

Transformative Learning Theory (TLT) addresses three areas of focus related to the

learning process during interprofessional education: experiential learning, critical reflection of

the experience, and personal development from the experience (Sargeant, 2009). Often

transformative learning takes place when new experiences differ from current beliefs and

knowledge. Next, a reflective process begins to evaluate the emotional responses from these

changes. From the point of critical reflection, personal growth and development can be

identified based on the new experience (Sargeant, 2009). Faculty perceptions in each stage of

the IPE program process will assist in understanding the transformative learning that occurs for

faculty related to IPE programming.

<div align="center">**Summary**</div>

Interprofessional collaboration is changing health systems around the world. Currently,

the initiation of IPC in health care is in transition between initiating IPE in the current work force

and initiating IPE in the current health professional programs. Initiating IPE calls for changes in

curriculum from all health professional program accrediting agencies. The literature supports

successful models for curricular fit and demonstrates successful outcomes of IPE program

models. There are variable assessment tools used to identify student outcomes in IPC. Faculty

who champion the process of implementing IPE programming are leading the way for the future

of IPE. However, there is little information available that captures an understanding of how the

process relates to faculty development in IPE.
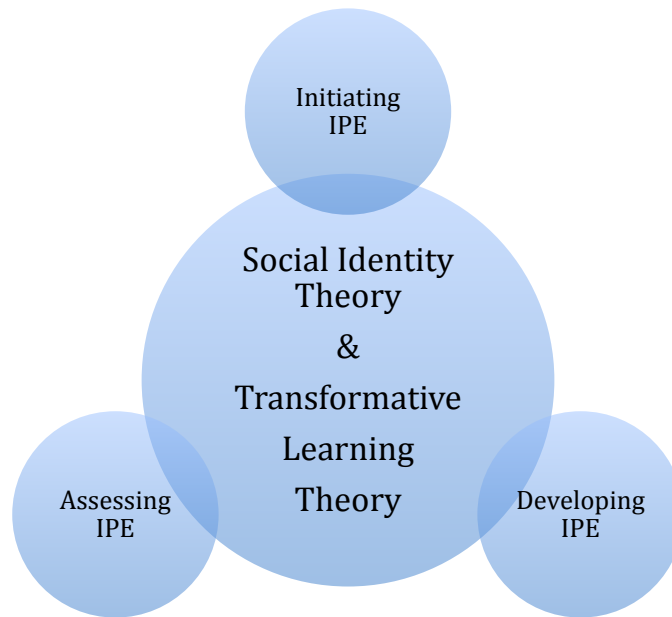
Figure 5. SIT and TLT Relationship with IPE. The relationship of Social Identity Theory and

Transformative Learning Theory to each stage of IPE program development.

CHAPTER 3

METHODOLOGY

The purpose of this study is to understand how faculty participation in IPE programming affects faculty social identity and their attitudes toward IPE. The qualitative focus includes conducting interviews of faculty from health professional programs who have participated in IPE programming. Globally, faculty have not demonstrated a significant interest in developing IPE programming (World Health Organization, 2010) for reasons described in the previous chapter. The data from this study indicate that a personal transformation occurs within faculty who participate in IPE programming. Understanding this transformational process helps to address the concerns of sustaining IPE in health professional education programs in the future. Analysis of the transformation related to the social identity of faculty, their attitudes toward IPE, their role in IPE, and what they learn from the experience assists the researcher in answering the established research questions.

A multiple-case study design facilitated the process of achieving the data collection and analysis necessary to study the phenomenon of social identity shift, attitude change, and understanding what faculty learned from the experience (Carter, Dubinsky & Domholdt, 2011). The bounded aspects of studying faculty who have participated in IPE programming is a hallmark for the case study design, but their variable backgrounds with IPC coupled with varying levels of external support necessitated a multiple-case study design (Merriam, 2009).

Faculty interviews provided the researcher with rich information to better understand how faculty internalize the experience of IPE programming. Merriam (2009) identifies that interviews are a primary tool used to collect data to better understand phenomenon. As interview data was collected, categorization of themes related to each research question was employed.

This process allowed the researcher to capture the intangible and make sense of it, and in this case, develop an understanding about how IPE programs affect faculty perceptions of IPE, shape their social identity, and contribute to their learning.

Research Questions

The following research questions guided the process of data collection and analysis in this study. The principle research question was:

How does the faculty experience initiating, developing and delivering IPE in the didactic preparation of health professional students impact faculty members?

To thoroughly answer the principle research question, four secondary research questions were identified for this study, and are as follows:

How does the faculty experience of participating in IPE programming shape faculty members' social identity?

How does participating in IPE programs contribute to faculty members' attitudes toward IPE inclusion in curriculum?

How does participation in IPE programming impact faculty members' perceptions of their role in conducting IPE programming?

What do faculty learn from their participation in IPE programming?

Research Design

Merriam (2009) identifies the three special features of case study design as particularistic, descriptive, and heuristic. Each case unit is identified as a faculty member who has participated in interprofessional education, which relates to the particular characterization in case study. The investigation of the details in the varying experiences for each faculty from IPE programming relates to the descriptive feature. Together, the understanding of these two aspects related to this

multiple case study adds to the heuristic value or discovery in understanding the effect of IPE

experience on faculty attitudes, social identity, and faculty learning. The bounded systems

related to the individual IPE experience for each faculty with variable backgrounds in IPC

support the use of a multiple-case study design (Merriam, 2009).

When considering case study design, multiple-case studies are considered more robust

than single case studies (Yin, 2009). Yin explains that multiple cases represented in a multiple-

case study design occurs with replication, which strengthens the research findings. However, the

conceptual framework must be solid to support the findings. Through developing interview

questions that are guided by the established research questions for this study, along with the SIT

and TLT intertwined, the data analyzed leads to a better understanding of the phenomenon

related to social identity shifts, attitudes toward IPE programming, and faculty learning. See

Figure 6.
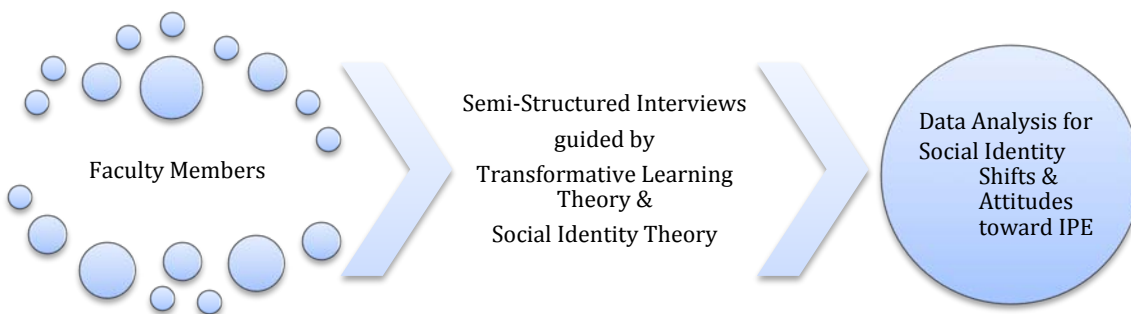
Figure 6. Multiple Case Study Design. Conceptual framework and multiple-case design.

Setting

The IPE standards established by the accrediting bodies are currently enforced or will soon be in effect for most health professions (Zorek & Raehl, 2012). Considering that majority of health professional programs are transforming from undergraduate degrees to graduate degrees, most of the participants in this study represent multidisciplinary health programs at the graduate level, with one participant representing an associate degree health program. Given the different types of degrees for health professional programs across the US, each participant in this study represents a diverse curriculum design. The curricular diversity adds to the richness of the data collection because it authenticates the challenges identified by faculty related to IPE implementation (Last et al, 2014).

Universities with multiple health professional programs were most helpful to this study to ensure that faculty members have access to conducting IPE with multiple disciplines. Internet searches helped to determine programs with multiple health programs on site. The data collection represented the experiences of faculty who participated in IPE programs within their university, as well as outside universities.

Research Participants

Interviews were conducted with multiple professions to gain an appreciation for the transformation that occurs in faculty members who participate in IPE. The experience of IPE by definition, includes two or more health disciplines who learn about and with each other's profession (WHO, 2010). As part of IPE development, faculty collaborate with other health professional faculty as they implement IPE programs.

The faculty included in this study were from entry-level accredited health programs located throughout the U.S. The importance of including only accredited programs was to

ensure that the quality of the health education programs have reached the rigorous standards determined by accrediting bodies. Also, only programs from the U.S were included. because accrediting standards vary internationally.

As a requirement, all participants had to be involved in the whole process of IPE programming, from the initiation to assessment. Also, it was expected that all faculty have an awareness of the IPEC IPE competencies. Faculty were also expected to have had some experience collaborating with other health professionals in the clinical environment. Discussion with potential participants about the inclusion and exclusion criteria determined if they met the needs for this study. An invitation to participate in the study was extended if the faculty met the criteria.

Purposeful sampling was initiated to target faculty from health programs from schools with IPE institutes and departments to ensure that IPE programming support is present. Of the three universities identified, a representative from two universities agreed to participate. However, only one faculty member followed through with scheduling a time for an interview. An email was sent to two board members from the National Interprofessional Education Consortium (NIPEC) within the American Physical Therapy Association to access the member directory with hopes of recruiting participants for this study. However, both attempts were unsuccessful. Currently, a listserv does not exist for this organization.

With failed attempts to recruit participants, the researcher contacted faculty from local universities who have implemented IPE to participate in the study. These participants shared additional contacts for eligible faculty who might be interested in participating and a snowball sample was employed. Snowball sampling methods assist the researcher in gaining the most

qualified participants for the study and help to increase the number of the participants (Merriam, 2009).

For the purposes of representing multiple disciplines, a pool of 8-12 participants were sought for this study. While the intent was not to represent a specific number of faculty from each discipline, it was important to include faculty from various disciplines to represent health professional faculty. One participant was from an associate degree health program and was included in this study because the data from the interview benefitted the purpose of the study. In all, there were eight total participants interviewed. The data collected assisted the researcher in identifying the transformation that occurs from faculty participation in interprofessional programming. Eight individuals participated in the study.

Data Collection

The collection of data for this study focused on the participants' experience in IPE programming from their viewpoint through conducting interviews. The information provided by participants based on their opinions, thoughts and feelings about IPE provided rich data and a deeper understanding of their personal experiences. Further analysis shaped the researcher's understanding as to how IPE experiences affected faculty related to the research categories of social identity, attitudes toward IPE, roles in IPE, and faculty learning.

Semi-structured Interviews for Faculty

Research participants participated in a single 25-60 minute interview, either in-person or on the telephone. All in-person and phone interviews were audio recorded using a digital recorder. The interviews were then transcribed from an outside source. All recorded interviews sent to the outside source included only the participant's first name and their discipline to protect their anonymity. After each completed transcript was received, the researcher revised each

transcribed text by comparing it with the audio recording. The researcher added the participant's

full name on the document and changed each statement line from their first name to their initials.

Transcripts were then emailed to the participant for review. Each participant was given the

opportunity to add details and make changes. All eight transcripts were returned without

changes, other than occasional corrections of spelling errors. The digital recorded file was then

expunged from future access. For the purposes of providing the details for this dissertation, the

researcher chose to protect participant's identity by assigning a participant number to each

interview and removing any direct details identifying the participant's university.

The interviews included 8 semi-structured interview questions to encourage participants

to provide purposeful and reflective responses. Please see Appendix B for the interview script,

which includes the verbal consent acknowledgement and the interview questions. Questions for

the interview were developed to maintain a semi-structured design. The open-ended questions

encourage the participant to describe, explain or answer questions. Each question was developed

based on the primary research question and four secondary research questions. The use of open-

ended questioning coupled with questions guided by the research purpose was helpful to

understand how the process of IPE program participation impacts faculty. Merriam (2009)

states, "The way in which questions are worded is a crucial consideration in extracting the type

of information desired" (p. 95).

<div align="center">**Data Analysis**</div>

All interviews were part of the qualitative analysis process with multiple steps of

analyzing the data. The interview data collected from these participants were included in the

overall data bank. Analysis included multiple processes, comprised of the utilization of a

member check, triangulation of the data, identification of rich text, and an external audit

(Merriam, 2009).

Pilot Study

A pilot study was implemented to determine the participant perception and effectiveness

of the eight semi-structured interview questions. The first two participants were interviewed

using the predetermined eight interview questions. The responses from these interviews were

included in the data collected for this study. At the end of the interview, each participant

provided feedback on their perception of the interview questions and the effectiveness of the

questions related to the purpose of the study.

Member check

As mentioned previously, each participant had an opportunity to review their interview

statements for accuracy and expand on the meaning of their statements if they found it relevant

to the topic of discussion. Following member check, each piece of data was coded manually

using an electronic format to assist in retrieving the information as needed during the analysis

(Merriam, 2009). Coding included assigning each pertinent statement to one of the research

based categories; social identity, attitudes toward IPE, roles in IPE, and faculty learning. Once

the coding was complete following each interview, ongoing analysis of the information was

conducted to determine themes that were present.

Triangulation of the Data

Data triangulation was conducted by the researcher and was based on the stakeholders'

responses to the interview questions. The stakeholders in the study are health professional

faculty representing various disciplines and universities. Through a constant comparison method

and manual approach to quote management, the researcher reviewed and compared responses for

each interview question. This practice facilitated the identification of four categories related to the research questions and included social identity, attitudes toward IPE, role in IPE, and faculty learning from IPE.

Data analysis focused on rich text that relates to research based categories. This process allowed for the questions to be answered from the data available (Merriam, 2009). Each piece of data was identified as a unit and all the units were compared and analyzed to determine if a thematic pattern developed. Once this was considered, the process included building these units into themes of the data. The themes were then sorted and named with the purpose of establishing findings to answer the research questions.

Themes Supported by Rich Text

As mentioned, four research based categories were initially established through coordination with the research questions. Of the responses, eight overall supportive themes were identified. The details of those resulting themes and the supportive rich text will be discussed in chapter 4. The rich text provides the breadth of each theme to expose the transformation that occurs within each research category.

External Audit

Once the thematic tables, which will be presented in Chapter 4, were developed with each categorical theme and supportive rich text, they were sent in an electronic document to each member of this dissertation committee to analyze the researcher's conclusions. Each committee member reviewed the themes with the supportive text and acknowledged agreeance with the researcher's judgment.

Participant Rights

Participant rights were followed with the highest regard during the study. All ethical guidelines outlined in the IRB were followed. Furthermore, participants were provided with contact information for the IRB chair if they had a concern or complaint. The participants were informed that any information they provide would be confidential; however, all information provided during the formal interview would be included in the study. To prevent a misunderstanding, each participant was offered a copy of the approved IRB, but none of the participants requested to review it. Verbal consent was obtained and the intent of the study was highlighted at the beginning of the interview. A letter of participation was provided electronically to all participants that outlined the data collection process and the rights of the participant prior to the scheduled interview (see Appendix A). The participants were treated with respect and the researcher was sensitive to the needs of the participants during the study process. The participants had the right to withdrawal from the process at any point, but none of the participants made this request.

Potential Limitations

A few potential limitations of this study were identified by the researcher. First, the sample included in the study does not represent faculty from all health disciplines. However, despite this limitation, the research findings are still valuable to understanding the effect of IPE programming on faculty transformation. Furthermore, the multiple-case study design supports the generalizability of the results when applying them to other health professionals who were not represented in the study.

Merriam (2009) describes the importance for each researcher to implement checks and balances related to establishing researcher credibility, dependability and transferability of the

findings. While these are all a form of potential limitations for qualitative research, the researcher intends to mitigate the possibility of their effects. Credibility is maintained throughout this study through employment of member checks and data triangulation, despite the researcher's personal bias from her own IPE programming experience. Dependability related to tracking the process of data collection and analysis is mitigated through the implementation of the external audit conducted by the members of this dissertation committee (Merriam, 2009). Transferability of the findings is supported by including the identification of rich text to support the themes in the data collected.

The methodology of this study describes the systematic approach to choosing a research design to guide the research process. The multiple-case study design allows individual faculty participants, with varying levels of exposure to clinical IPC and external support, to be bound by their experience of IPE program participation. Textual data collected from the interviews support the themes identified, as they relate to each research-based category. The thematic results are supported by the rich text provided by the participants. It is the analysis of the themes and each unit of text that hold the answers to the research questions related to the transformational process that occurs in faculty who participate in IPE.

CHAPTER 4

RESULTS

The purpose of this study is to understand how the experience of IPE instruction affects the social identity of faculty and their attitudes toward IPE programming. A multiple-case study was determined to be the best study design by the researcher to represent faculty with varying backgrounds in IPE, both clinically and academically. The comparative findings related to the similarities and differences between each participant strengthen the results. Initial categorization of the data precipitated eight themes related to the research questions previously identified. This chapter will further explain the analysis method, including a review of the pilot study, a description of the participants, and a description of how the themes were established. Following the description of the analysis method, the results related to the established themes will be provided.

Analysis Method

The principal research question for this study is, how does the faculty experience of initiating, developing and delivering IPE in the didactic preparation of health professional students impact faculty members? Through the development of a conceptual framework using the Social Identity Theory and Transformative Learning Theory, four secondary research questions were identified to further answer the overarching primary question. The secondary research questions led to the establishment of a categorical framework for data analysis purposes. Beginning with the results from the pilot study and a brief description of each participant, the process related to the data analysis of themes from will be described in detail.

Pilot Study

The first two participants were each asked to review the eight questions individually with the researcher following their interview. Both participants were asked about their perceptions of each question to determine the effectiveness of the interview related to the purpose of the study. It was determined that each question was appropriate related to the study's purpose based on both participants reporting a favorable impression of the interview process. The only suggestion to the researcher was to read each question multiple times, as some questions were long. This suggestion was taken and applied when conducting future interviews.

Participant	Pilot Study	Interview Data Collected
1	X	X
2	X	X
3		X
4		X
5		X
6		X
7		X
8		X

Table 1. Participant Data Table. This table identifies the participant's data that was included in the pilot study and interview data collected to be included in the final results of this study.

Participants

Participants represent a purposeful sampling based on their experience in IPE programming in academic coursework. A snowball sample technique developed from the initial purposeful sample to gain more participants. All participants were provided a letter of information (see Appendix A) outlining the details of the study, including the participant rights. Verbal consent was received at the time of the interview. Interviews were conducted in-person and through the phone. All interviews were recorded and then transcribed. The eight participants in the study represent eight different health professions across 3 universities. The

descriptions will identify each participant by their number and detail their clinical background, academic background and number of IPE programs each participated in. A table with the information is available in the appendix (see Appendix C). All information provided maintains the person's anonymity.

Participant 1. The first participant has been an occupational therapist for 19 years and has practiced in inpatient rehabilitation facilities and outpatient facilities. The participant worked interprofessionally with physical therapy in the clinic and has been teaching full-time in academia for 2.5 years. They have participated in two IPE programs and worked interchangeably with physical therapy, athletic training and counseling departments. The interview was conducted in the participant's office.

Participant 2. The second participant has been an athletic trainer for 14 years and has practiced in high school and university settings. During their clinical practice, they worked interprofessionally with sports medicine physicians, physical therapists and neuropsychologists. The participant has been teaching full-time in academia for 2.5 years. They have participated in two IPE programs and worked interchangeably with occupational therapy, physical therapy, counseling and physician assistant departments. The interview was conducted in the participant's office.

Participant 3. The third participant has been a nurse for 30 years and practiced in an inpatient hospital setting. The participant was part of a teaching team that implemented interprofessional collaboration training for all health professionals in a hospital prior to moving into academia. This person has been teaching full-time in the academy for 10 years and has been part of 3 IPE programs that included working interchangeably with physical therapy, physician's

assistants, radiological science and respiratory therapy departments. The interview was conducted in the participant's office.

Participant 4. The fourth participant has been a mental health counselor for 35 years and practiced in the outpatient setting. They report collaborating with other health professionals during clinical practice, including nurses, physicians and psychologists. The participant has been teaching full-time in academia for 20 years. This participant has participated in one IPE program that included working with the physical therapy, occupational therapy and athletic training departments. The interview was conducted in the participant's office.

Participant 5. The fifth participant has been a radiology technician for 41 years and has taught full-time for 34 years in radiological sciences. The radiologic science program is an associate degree program. Despite not meeting the graduate program inclusion criteria set initially, this participant had valuable experience in IPC and IPE and this experience fit the purpose of the study. They have participated in many IPE programs over the past 20 years, most without purposeful implication of IPE. However, in recent years they have participated in a recurring IPE program that included nursing, physician assistants and respiratory therapy. This interview was conducted in the participant's office.

Participant 6. The sixth participant was an army medic for six years prior to attaining a master's degree in Health Care Administration 11 years ago. The participant's experience as a medic in the army included a role in leadership training for IPC development. Currently, the participant works full-time in academia as the director of a Simulation Center and is responsible for conducting trainings and coordinating education programs related to medical simulation in emergency and hospital settings. The past 3 years, they have been an adjunct faculty member in

an IPE elective offered to students studying physician assistant studies and nursing. This interview was conducted in the participant's office.

Participant 7. The seventh participant has been a pharmacist for 11 years and has been a clinical faculty member in a pharmacy program, as well as an adjunct faculty member for a physical therapy program for the past 3 years. Current experience in IPE programming includes developing an interprofessional rounds practice between pharmacy students and medical students that has continued for over 4 years, as well as participation in IPE programming with pharmacy and physical therapy students the past two years. This interview was conducted at a hospital coffee shop.

Participant 8. The eighth participant has been a physical therapist for 20 years. Although they have been in academia full-time for 11 years, this participant has been in the role of Director of Interprofessional Education at a university for 4 years. This role includes direct involvement in the implementation of interprofessional program development between all health disciplines at the university. This participant is actively conducting research on IPE programs. This interview was conducted via phone conversation.

Data Analysis of Themes

The four secondary research questions were established to answer the overarching principle that guided this research study. Initially, four categories were established, each related to the secondary questions. The research categories determined were social identity, faculty attitudes toward IPE, faculty role in IPE, and faculty learning from IPE. These four categories facilitated the categorization of the data, which led to thematic discovery. A thematic chart was developed by the researcher to visualize this process (see Figure 7) initially described by Bloomberg & Volpe (2012). A complete description of this process related to thematic

discovery within each research based category will be explained. Chapter 5 will explain the findings that were developed from analysis of the themes uncovered from the rich textual data.

Thematic discovery

Each research question guided the process of thematic discovery. An electronic table was developed and included the four research-based categories. Each interview transcript response was scrutinized to determine if each statement fit a specified category. Once all data was reviewed and categorically assigned in the table, the data in each category was reviewed for patterns. Initially, multiple sub-categories represented all the data identified in the overarching category. Once all sub-categories were established, the researcher further evaluated the sub-categories to find a theme. The researcher did consider the possibility of generating secondary themes but decided not to because only two themes out of the eight represented multiple concepts. In addition, the participant responses to those multiple concepts did not substantiate additional theme generation. Table 2 identifies the themes that were determined in each research-based category. The complete results related to the themes established is included in the results section.
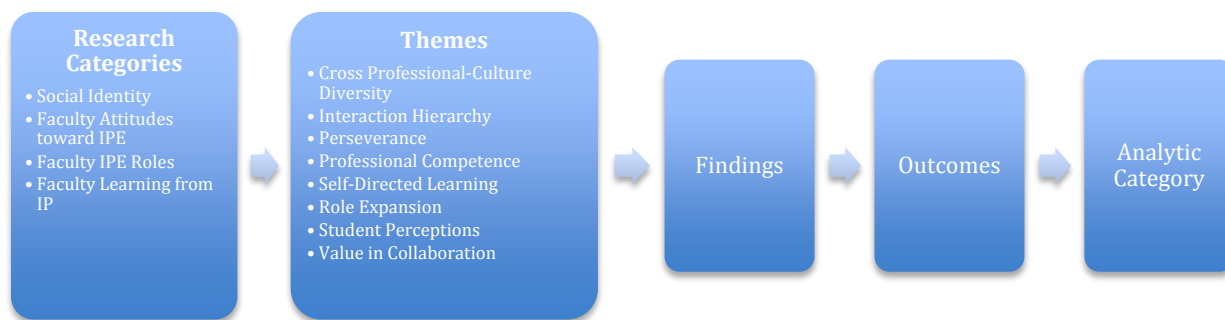
Figure 7. Modified Thematic Chart. This chart represents the initial process of data analysis related to the research categories and the final themes determined from the data collected. The findings from the results, outcomes, and analytic categories will be discussed in the next chapter.

Results

As described, the data collected from the interviews were organized into research-based categories and themes were generated for each category. The themes were then further analyzed, along with the data to determine finding statements to each question. In the following section is the presentation of the themes with rich-text support from the interview data. Each theme is organized into a category based on the research questions.

Themes

The research-based categories were developed from the original research questions. Each research question is re-stated to ensure the reader appreciates how the themes facilitate a deeper understanding into interpreting a finding. Following a brief description of the resulting themes in each research-based category, a table will follow with the supporting textual data from all corresponding eight participant interviews.

Categories	Themes	Concepts
Social Identity	*Cross Professional-Culture Diversity*	*Academic Silo*
		Professional Bias
		Interprofessional Appreciation
		Interprofessional Communication
	Interaction Hierarchy	-----------------------------
Attitudes Toward IPE	*Perseverance*	*Purposeful IPE*
		IPE Buy-In
	Professional Competence	-----------------------------
	Self-Directed Learning	-----------------------------
Faculty Role in IPE	*Role Expansion*	-----------------------------
Faculty Experiential Learning	*Student Perceptions*	-----------------------------
	Value in Collaboration	-----------------------------

Table 2. Categorical Themes. This table identifies the themes related to each research category.

Social identity category. How does the faculty experience of participating in IPE

programming shape faculty members' social identity? This secondary research question guided

the data analysis toward two specific themes related to social identity. An overwhelming

majority of the participants acknowledged this diversity through words, such as silo, difference,

bias, identity and communication. Four concepts from the data contributed to the theme

development of cross professional-culture diversity, and they included academic silo,

professional bias, interprofessional appreciation and interprofessional communication. The

second theme identified within the social identity category was interaction hierarchy between

health professionals. A few participants acknowledged that faculty choose other faculty to

develop IPE programs based on clinical interaction. The two themes established from the social

identity category are supported by the rich text from the data. Table 3 provides the data for each

theme in the social identity category.

Theme	Supportive Text
Cross Professional-Culture Diversity	*Participant 1* -"I learned that I can't control everything. I need to work well with others because in all my prior roles I've always been the leader on everything I've ever done. I've always been that person who quickly goes to management or quickly starts a new program and kind of runs things. I learned that I need to hitch my wagon to people who know what they're doing so I can learn from them. Because this is a new place for me, it's a total new world." - "I think a barrier, too, is the…definitely the personalities of different faculty members. There's people that I just click with and enjoy working with on projects, and then there's people where maybe it was a little more difficult." - "And [I need to] really be open to what other people have to say. I think a lot of times I go into meetings in my head like "I know what I want, I know what I want to say, I know what I want to do" and then the meeting goes a totally different way. The whole time I'm sitting there thinking, 'but I need to say this, when can I say this?' This is what I'm here to learn. I need to be open that there's all kinds of other things that I need to learn. I just need

to listen to people. There's more than one way to do things. To be open to different processes, and different people's personalities, and not taking things personal when someone's opinion is different than mine, or if someone doesn't understand what I'm trying to say. I need to be okay with that and work on my communicating."

- "I definitely learned more about who does what. Again, mostly PT is who I've been working with, so I kind of know what PT did. It was kind of cool to see what mental health counseling had to bring to the table. And athletic training, what they could bring to the table and listening to that…that was kind of cool."

Participant 2
- "I wasn't quite sure what to expect for the second time. And I wasn't sure what to expect from another faculty member that I hadn't worked with, or the two I hadn't worked with. I wasn't apprehensive, but I was just "Oh I wonder how this is going to go?" I had some uncertainties and some of my own bias. But it ended up being awesome and I think faculty members got a lot out of it."

- "I have noticed that I've had to do more education, and "oh yeah, we can do that." And also vice versa. For me, I've understood some other points of other people's professions that I haven't had to tap into before. So it's been a learning experience for me, too."

- "I think working with occupational therapy, it reminded me how affected some daily activities can be for individuals that have problems. Quite often in my role we tend to think of classes and sports, and we forget that they might not be able to brush their hair. Or they may not understand how to use one hand for a month. Who can help them? How they could be helped and what kind of strategies they can use, just in the short term. I think that that was probably one of the most important things that I kind of forgot, remembered, and impressed upon the students because those are some…patient satisfaction and patient outcome things that we don't necessarily think of. We think of somebody that had a surgery, is on crutches for three weeks, how are they going to get to class? What is the short-term accommodation for them to get across campus? I don't think about, 'do they live in a two-story house that they're now using crutches. How is that going to impact their healing? What if they fall?' I wouldn't think about that at all. Those are some things that I think, reflecting on, we should maybe think about a little bit more."

Participant 3
- "When you come to academia it's very siloed. You teach nursing to nursing students. There's really not a lot of talking. It's exciting to offer to other people, 'hey, would you like to come in and learn with my nurses?'

Or 'can my nurses go to you and do this activity?' I believe in that!"

Participant 4
- "In academia it seems to be a little more department focused, professionally focused. The professional identity seems to be more important in academia as opposed to the clinical world. Clinical identities are important but we're all working for the benefit of the client."

- "I usually lecture on what's called the confirmatory bias, that every discipline has their confirmatory bias about what works and why it works. Not that they're right or wrong, but we need to identify what those are and learn to collaborate around those. I found great benefit that our students could view the operations of different disciplines that have different training, different focus, but yet benefitting the client."

- "I think as faculty we're on different committees all the time. We do a lot of collaboration as faculty on committee work. I think we see ourselves as faculty first."

- "I don't know if they [faculty] understood it [my professional role]…I think they respected it. The faculty involved in this all seem to have a background of work experience, so I think understood and appreciated the collaboration, inter-disciplinary collaboration, more so than from just an academic point."

-"It's [IPE experience] probably modified some [initial bias about other health professionals]. It's not totally changed, but it's modified some."

Participant 5
- "I think that there's an awareness, a cognitive awareness, from different professions here. There's still the issue of how to breakout of the silo, how do we do that?"

- "I think my opinion has always been, even before the literature has come and the focus has come on it, that it would be important for students in health professions to do something together. First and foremost, we could at least appreciate other people's roles. I think for me, having been in the health professions for that long…how many did I say…forty-some years…that I don't know that everybody really can appreciate what everybody else's role is."

- "It's impossible to not bring your bias into something, it's being cognizant of it. Radiology typically has, in the scheme of things in healthcare, we're just kind of an afterthought. You've been around enough to probably appreciate that I'm saying that. When I talk to our students, you have to first appreciate the role that you do, and you have to understand that nobody

else knows what you do. Even though you might be an afterthought, you have to be respective of everybody's knowledge-base and their skill set for you to expect them to reciprocate."

- "I think it's [personality differences] there, but I don't think that it's gotten in the way of us getting our goals defined and then accomplishing them. We've not ever had a discussion about them, though, like dealing with the here and the now, like 'whew, I got a bad vibe off you on that one.' My own perception is sometimes when we're having a group meeting, sometimes I felt like we were in our own way relative to…but sometimes I have to interject that I have to be careful that it's not me projecting my own stuff over years and years of…you know, like 'you PAs think you know everything.' That kind of thing."

Participant 6
- "Now we talk about the silo and everybody trains in their own profession…they don't come together. The idea of this was to bring them together, train together…will they work better together? When we sat them down in the classroom, they siloed themselves, much like they do in the cafeteria. Rad science sits with rad science, PT sits with PT, nursing sits with nursing, when they're supposed to be training together and working together."

- "The inter-professional course that we taught…there was some comments from faculty…we brought in every health specialty we have here to give a brief on what they did. All of the faculty that taught the course went to those and listened. I learned as well as the nursing faculty, the rad science faculty, learned what these other health care professions are all about. We worked in the same building for 10 or 15 years as these health care professionals, and it wasn't until we brought them together for an IPE-type orientation that they went, 'Oh, that's what they do!'"

- "Everyone has their own way of doing things, and that isn't just profession to profession it's faculty to faculty and that's part of working within the team…you've got to recognize what other people are doing and how they want to do it, and adjust to it or you don't…and you don't work well together. The bottom line is when it comes to patient care, you've got to work well together."

Participant 7
- "Before I got into the teaching at [university name], I sort of had an idea of what a physical therapist did, but I gained a much better appreciation for that after I got into the actual course. Until you get that information, your preconceived notions, whatever you learned from other people or on TV or whatever…of what other professions do. I do think it's really important because knowing the limited resources we have, and I think everybody is

	being asked to do more with less, so that the whole health care system can be more efficient. Knowing which expert is for which piece of the care and working together for the benefit of the patient, because we all have to do more with less, but we still want the same or better outcomes."
	- "We all sort of have our own language to certain degree and some of it overlaps…but not all of it. I did learn that just being aware that everybody has their nuances. Every profession has their nuances and to just be aware of that, and be open in terms of communicating."
Interaction **Hierarchy**	*Participant 3* - "I don't know that there's enough time to make sure that the nursing students get to experience all the different specialties. But if they get to experience a couple, and they have good experiences with those couples, hopefully it sets them up for being willing to work with others when they get out in the real world." *Participant 5* - "When I read about inter-professional education I read about physicians, nurses, PAs, PTs, and OTs. It's rare if they're going further down into the allied health professions: respiratory, rad science." *Participant 7* - "I think from a priority standpoint…each health profession…there would be sort of a priority based on who they most interact with. Physicians and pharmacy are very closely related because physicians are prescribing the medication, pharmacists are dispensing it. That relationship, I think is important. I would say, yes, it absolutely should be included in the curriculum of the different professions. The priority of which might be a little different based on the individual profession, I think, given that certain professions will interact with each other more so. But having an appreciation for all of that is important. I understand limited resources, there's only so much within a curriculum that you can do within X amount of years that people are training. So that's why I would favor more of a priority level, knowing that resources are limited and there's only so many things that we can have students experience throughout the curriculum."

Table 3. Social Identity Data. This table represents the themes identified within the social identity category and includes the supportive text from the participant interviews.

Faculty attitudes toward IPE. How does participating in IPE programs contribute to faculty members' attitudes toward IPE inclusion in curriculum? Three themes were identified from participant responses to answer this secondary research question. The first theme was

perseverance. While most of the participants report multiple challenges in IPE programming, they were still successful in developing IPE programs. Two concepts from the data, purposeful IPE and IPE buy-in, were identified from participant responses as capturing faculty perseverance in IPE programming. The second theme determined from the data was professional competence. Majority of the participants agreed that it is necessary to include IPE program development in response to the performance expectation related to IPC in the clinic post-graduation.

The final theme identified from the data was self-directed learning. None of the participants had formal training in IPE to aid them in IPE program development. All participants reported researching IPE development individually or they were approached by another health professional faculty member to participate in an IPE program. All three themes are supported by rich textual data. Table 4 provides the complete results for each theme related to the faculty attitudes toward IPE category.

Theme	Supportive Text
Perseverance	*Participant 1* - "So sometimes faculty can be very opinionated. Not that we want people to soften their personalities, but there's just some people you can work well with and some who people who kind of turn you the wrong way. And you're like, oh, maybe that wouldn't be a very good IPE experience for my students. So definitely some personalities." - "You don't get paid for it, usually, for all the extra work. It's a lot of extra work. So you know, you see some faculty that aren't doing IPE. They're doing their thing, they're going home and spending time with their family. I'm staying late and doing things. I'm super motivated right now, but maybe in like five years I'm going to be like, kind of over it and not wanting to put in all the extra time and energy. Sometimes I bribe my students with doughnuts and things, so its money out of my own pocket to get them to come in late at a later time or do something." *Participant 2* - "The practice is driving education in this way, whereas a lot of times education drives clinical practice. I think it's flip-flopped in this instance."

- "I think that we need to do a better job of identifying IPE experiences outside of the classroom, so more collaborative clinical practice. How can we mindfully make that happen? Right? I also think that IPE in the classroom needs to have a more planned basis, but it also needs to be done in a timeframe where students will feel like they have the knowledge to contribute. I think that's a challenge because everybody has different timeframes where they do certain thing. I see that being a bigger challenge than most things. I think you'll be able to find faculty that'll just make their students do a project or do something that will at least start the conversation. But I think we need to be more mindful of 'when do we introduce it, and then when do we push it for more meaningful experiences now that it's been introduced?' One time isn't going to be good enough. It needs to be more than one time, but I think it needs to be done in a more progressive manner."

- "Especially being in a health professions college, the opportunities are endless. It's just a matter of people putting work in to figure out how to make that happen. And then the motivation that other people have. There's going to be some people that don't want to do it, and then there's going to be some people that do. I think the key is to find the people that do, first, and see how great it works…get the word out. I think those people will come around or they'll be left behind."

Participant 3
- "If you've got another faculty who's interested in doing it, it's going to be possible. It's going to take some work, but it's still going to happen."

-"I think as long as you're interested, as long as I've got somebody else out there from another profession who's interested in doing it, I'm going to see what we can do to work it out together. Absolutely, it's beneficial. It's going to benefit the student, which is ultimately going to benefit my patient."

- "It [IPE experience] hasn't changed my view of IPE. What's happened is my view of academia has changed. I can understand now why it gains its reputation of ivory tower and training with blinders on. That's the way it's set up. I'm just as strong now, if not stronger, in my belief that we should do interdisciplinary training and interdisciplinary discussions and things like that. That, I think, is going to continue. I just think I'm going to…I recognize what goes on in academia and any opportunity I get, if this comes up, is to be a supporter of it. When people look at you like you have two heads and say 'why would you ever do something like that?', I can say 'I've done it. I've done it more than once. It's beneficial and this is where the future's going and I think we should do more of it'."

- "For me it [coordinating with faculty] was easy. I think part of that is

because of my philosophy, part of it is because of my experience, part of it is my personality. I just get along with people. We're not here because of me, we're here because of something else. I do know that there are faculty, and it may be true in more than just the nursing program, but I do know some of my peers who are a little more resistant to working with other staff. I've never really explored 'why?' I just end up working very closely with those who don't have a problem working with people from other departments and doing other things, making it joint, and working together with an effort. It's okay."

- "What I encounter here is the resistance…[from]… A variety of things. There's a variety of roadblocks. Not every faculty member in our organization, let's go with the College of Health Sciences, believes in IPE at the same level. Some people won't even consider working with you."

- "Trying to find a time where the faculty and students from both groups are available to do something together is sometimes the difficulty. That's why the course was nice when it's offered as an elective. I don't think it even ran in the Fall. It did run the year before and we had twelve people in it…perfect! That was because it was a dedicated, set-aside time where everyone who was interested in it knew that on that date and that time we were going to do something inter-collaborative."

Participant 5
- "I want to make sure that I say that I think it's really important. I think it's important to take it beyond the physician/nurse/nurse-practitioner/physical therapist/occupational therapist, the people who are usually…I guess you can think about it in terms of servicing the patient in the public sector."

- "By virtue of the fact that we don't have an opportunity in academia to interact with the other students in the other health professions' majors unless we're very purposeful about it. We haven't been able to get that purposeful yet, I think."

- "I think the biggest challenge is scheduling conflicts. In the early conversation, it was trying to find faculty who had the interest and had the time. I think that's another issue for faculty. You might have the interest, but all of it is very time-consuming, and people are tired! If you can find people who are willing to do that, then you've got to try and find how you're going to get the students together because we're so siloed, and our schedules are so different. Plus, you've graduate students, you have four-year undergrads, and we're a two-year program. The conflict is inherent in that curricular design. Those are the biggest things. I think the other thing is that it really does require a paradigm shift that we haven't made. We collectively haven't made that paradigm shift. We have smattering

discussions about it."

- "[regard to collaborating with younger faculty] I think it's different. I don't know that it's easier or more challenging. I just think it's different."

Participant 6
- "The faculty need to be on board to get the students there. We're getting there. I was told long before I came to academia that university pace is glacial, and I've confirmed that fact. We get there, but it's a slow process. You're not going to speed it up. When you try to go fast, you're going to lose people. You've got to move at that pace. We're getting there. It's just unfortunate that it has to move at the pace that it is."

- "I don't understand, from my perspective, having been a team player my entire military career and I still play team sports, you don't always like who you're working with. But when it comes to caring for a patient, you've got to push that aside and work as a team and understand what they do."

- "The old faculty: 'This is the way we've always done it; this is the way it is and we're going to continue to do it this way.' Newer faculty are more open to newer ideas."

-"The biggest challenge…and everybody brings this up…is scheduling. Every health profession degree map is fully loaded and there's no room for anything else. So you start adding IPE…where's it going to fit into their degree map?"

-"I think I just always make it work. If there's been faculty where it's not going to happen, it's just not going to work, eventually I find a way to make it work. Whether it was a change on their part or my part, I'm not 100% which way it went…maybe it was both."

- "Faculty that aren't on board with IPE spend more time focused on why it doesn't fit into their schedule, their curriculum, or their delivery process. Whereas the newer faculty are 'Let's make this happen, let's make it work.' The same thing happens within the same health profession faculty, so it doesn't have to be inter-professional, it happens within."

Participant 8
- "I think overall it's still a benefit no matter who engages in an IPE experience. There's probably something that that individual learns about other professions. Many times you might see that the exchange of information is not equal, so not all students engaged in IPE experience equally learn from, about, or with one another. Many times there's more education that's one way happening with educational experiences, so we try to minimize that. It's up to us as educators to create those IPE strenuous

	questions that create the exchange of conversation between the disciplines equally. That always doesn't happen, but it is our responsibility to try make that as even as possible. I think it's important. I don't think it should happen at high frequency, but even if one time, if someone sits in an IPE…one profession sits in an IPE experience…and does not have much at all to contribute to the conversation in terms of their profession, but they learn a lot from the other professions in regards to what they say. Is that valuable knowledge? Yes, it's very valuable because they can apply that into their clinical practice or their own personal lives in the future. But you don't want all experiences to be that way. The larger experiences when people create them and we're creating them, it's very difficult to equally create, having 25 programs, equally included in the IPE contents. When you have 2 programs or 3 programs or 4 programs it might be easier to equally include all the programs. From my perspective, have smaller IPE experiences."
	- "The challenges that I probably face the most are some administrators at our Health Science Center who don't see IPE as an evidence-based practice methodology. They see it as non-clinical. I think it's trying to break through, and I don't know if I'll ever break through, the walls of that. But that's important in terms of money that you might need to do what you need to do in IPE. Whether it's the payment of standardized patients, or new software…it costs a lot of money. I guess that's true with any purchase. Administrative support is one of them (challenges)."
	- "Another barrier…challenge…that we have at our Health Sciences Center is related to space."
	- "Timing for us…most people say scheduling is a challenge, and I would say scheduling is always a challenge. But all of our faculty members have been really great when they come together and they work together."
	-"So challenges in regard to assessment tools: What do we really want to address? Trying to find the right assessment tool for us, that consistently addresses how we're assessing student learning, because that is tied to our quality enhancement plan."
	-"That's where I see the challenges. I think the biggest challenge in the very end is truly integrating IPE where it's seamless. Where students will come into…whether it's in their own course or whether there's an elective course…but for them to understand that IPE is like electronic health records, it's like your evidence-based clinical guidelines that you're learning…it's very seamless."
Professional	*Participant 2* -"Afterwards, what I see is IPE is necessary for those students to get an appreciation of how healthcare can collaborate to insure better patient

Competence	outcomes. But I think if we don't have IPE that is something that's learned but takes more time and maybe patient outcomes won't be as great initially. Maybe that's also a difference between a novice clinician and a more mid-level to expert type of clinician. I know over the time that I've had, when I was coming through we didn't have IPE identified."
	- "But with all the EMRs that are going on, that have done in the past, now that all of the health systems are integrated within themselves, it makes collaboration so much easier. I think that if we don't teach the students that now, then they're not going to be employable. And that's a disservice."
	Participant 5
	-"I think it should be done. I think it should be one of our priorities because we have an expectation that when you go into health care, some way or other you have to learn how to collaborate with somebody. Whether it's in the emergency room and you're surrounded by other professions, or really trying to work on something that's happened to a patient, or you're at the bedside, or you get put on committees, you have to learn how to collaborate."
	Participant 6
	-"They need that exposure to work as part of a team and realize the importance to their career and to understand, "I have to care for the patient. And these are the resources I have: I have respiratory therapy, I have physical therapy, I have occupational therapy." These are the things that they're going to need, and I don't think students leave here…and I don't think it's just undergraduate…I say that because the PA and PT and OT have graduate programs…they leave here with a professional education and some rotations, clinical experience, but I don't think they have the concept of the fact that it's a big team approach."
	Participant 7
	- "I think it is important because we all need to appreciate…all health provider backgrounds…need to appreciate what information is important to another discipline."
	-"We all gain an appreciation of what's important and what impacts other disciplines, because then we can all work together in a more efficient and efficacious manner."
	Participant 8
	- "I didn't even know the term. I would say the term was introduced to me 7 years ago when I was asked to join a small working group at the health sciences center. I didn't have any opinions about the term IPE."
	-"I believe now that it's a worthwhile cause in an educational effort, not

	only for health care students but also health care professionals who did not have this baseline knowledge or education provided to them when they were in school. I know IPE, to me, is the same as any other effort that the health care delivery industry puts forth to improve patient outcomes, such as electronic health records. It is a very important initiative in what we're trying to do to improve patient outcomes and population health, such as the use of evidence-based practice. You might think that IPE or inter-professional collaboration is an evidence-based practice methodology to improve patient outcomes and population health. So I would say it is worthwhile. All of our students can benefit from it. By the accreditation standards, pretty much all the programs require it (not all but most). We have to give students not only the opportunity to engage with one another in regards to clinical diagnoses, but I think it is very foundational for students learning about teams. It is delivering information about teamwork and communication, really not even thinking about the clinical perspective at the time. I think what most of us do is we have really great IPE experiences focused on a clinical topic such as cancer or total hip replacement, but if we just put them in teams to work on critical cases together without educating them on how to be a good team member, then I think we're only doing harm to our job. The way I view IPE now, it's going to be a very continuous, lifelong learning process. We initiate it in school in the academic arena…maybe even before in the undergraduate programs if they're seeking health care professions. Right now we're doing it within the health care professions' academic arena, but it is a lifelong process just like with any other education. That will continue throughout an individual's professional span."
Self-Directed **Learning**	*Participant 1* -"[involved in IPE] I think maybe not as early, but I think I would have found my way to it eventually because I see the value in it. So I think I eventually would have done it but maybe not as quickly. Because I really didn't know that there was so much research about it. I was just thinking in my head, "oh, well it would make sense that OTs and PTs work together in the clinic, that my students should probably know what PT does, and maybe do some small things. But I think being on the [IPE] committee helped me to think a little bit bigger and not be afraid to just do it." - "I think that the universities want you to do IPE but don't provide you with the resources to do IPE…. 'make it work, figure it out!' You hear about these other places where they have all these classes where everyone's taking classes together: nursing students, PT students, OT students, athletic training students. They're learning all the basics together. How do they do that? It's happening in other places so we know that it's possible. I think people want change but they don't know how to change or they're afraid to make changes. We want to change, but we don't know how."

| | *Participant 2*
- "Well, we usually don't have people with osteoarthritis, so I was like 'I'm not really sure what I should be doing here right now.' For me it was a little unsettling, but in a good way. I realized if I'm feeling this way, then my students are going to feel this way, and how can I help them? It was interesting."

-"…knowing that [IPE] was a direction that was going to affect me and knowing that this dean put a group together to identify how things could be incorporated in curriculums, and knowing the future direction of my own accrediting body and profession, I tried to be more proactive in seeking out information, and trying to figure out a way we would be able to identify educational experiences for the students without vastly changing our curriculum."

Participant 3
-"As a faculty member, I don't know that I would need to be trained [in IPE programming], so much as I think I have to be willing. I have to understand what is good teaching to begin with, and then be willing to work with another faculty from another profession and say 'we want to do something together that's going to benefit the students. What are your goals? Here are my goals. How can we make the goals fit? What teaching method do we want to put together to meet these goals and get the students involved? And then let's get some feedback about what the students thought. Did it work? Did it not? Can we change? Should we not?' That kind of thing."

Participant 5
-"Anything that I have…I've read about it on my own or because we got involved in the inter-professional research project that we have going."

Participant 8
-"When I was asked to be on this grassroots committee, or workgroup, I had never heard of the term. I learned from others on the team about what that term was, and I had to go and seek information through the literature…in the libraries…on what IPE was. My professional development was from the people who surrounded me as well as self-reading. With that done, I increased my professional development not just by reading, but starting to conduct research on what we were doing and talking about what we were doing." |

Table 4. Faculty Attitudes Toward IPE Data. This table represents the themes identified within the faculty attitudes toward IPE category and includes the supportive text from the participant interviews.

Faculty role in IPE. How does participation in IPE programming impact faculty members' perceptions of their role in conducting IPE programming? The single theme identified in this category was role expansion because all participants identified their wish to continue IPE program involvement, and majority identified their interest in expanding their role. When initially participating in IPE, all participants acknowledge feeling uneasy. Despite all participants agreeing to continue IPE program involvement, not all are interested in initiating the process, but rather expanding their role in other ways. Table 5 presents the results from the themes determined in the faculty role in IPE category.

Theme	Supportive Text
Role Expansion	*Participant 1* - "I think I've always been approached, "Hey, I was thinking of doing this…what do you think?" And I've always been, 'Sure, let's do it' kind of thing. But then once I'm in I'm in it to win it, so definitely helping to facilitate whatever needs done and giving input. But I don't feel like I've been the lead person in any of them." - "I want to change from, 'yeah, I'll do it and see what I like, to now I think I know from doing all of those what I really want to spend my time on and do.' Yes, I would like to get something like that going". Although, it's just going to be…it's a lot of work." *Participant 3* -"As a nursing faculty in the School of Nursing, I'm going to say that I'm the initiator. I'm interested in it, I support it, I see the benefit of it. I'm more likely to be open to it if somebody says, 'why don't we try this.' When another faculty member approaches us and says, "is anybody interested?" I'm usually going to put my hand up and say, "yeah, sure, I wonder how we can do this?" I don't force inclusion of the other nursing faculty into this. I have gone out to say "is anybody doing anything? Can we do something together?" I guess that's where I see it." - "Oh gee, I've never done it, I don't know how to do it, I don't know where to begin." "[Responding to faculty new to IPE] Yeah, I'd be willing to help them come this way and "I'll show you what I've done, and then you can do something different." I think how you get to the end…there might be different paths, as long as you get to the end."

Participant 4

- "In the initial planning I felt very included. I deferred to the leadership of the physical therapist who was facilitating this process. I took more of a 'let it evolve' kind of role, not certain of what direction that this was going. I was real pleased, then, with how it formed and impressed that there is four different disciplines, and several groups of students, where everyone had their own schedules and own agendas, and because of our collaboration. It seemed to be a seamless process that times were set-up and students seemed to willingly attend, I think they felt they'd benefit from it. So I'd say it was a very smooth, very good process."

-"I think I would advocate for including distinct psychological problems in the client profile. Right? And then probably prep our students more in what their intervention could be. So I would do that. I would advocate among the faculty first that we want an increased role and then prep our students more for that role as well. Our students were prepped well on leading a focus group, leading the interaction, because they're graduating and they're working in groups, and we're doing their clinical work at that time."

Participant 5

- "He's the leader because he got lots of experience. He's an emergency room physician and he's got a high interest and a lot of experience in research itself…he's the main leader. The rest of us are participants in it. It's a collegial way of trying to figure out what it is we want to do and how we're going to get there, and what role everyone is going to play in terms of planning it, and then developing it, and then implementing it."

- "I don't [see herself as a mentor]…only because I'm getting ready to retire. If I would have, if I had longevity, I probably might think about that."

Participant 6

- "I think I'm not in a leadership role, but I think there's an informal leadership role."

-"But also I think organizationally, the movement throughout the day on the [IPE] research day and that kind of thing, they kind of look to me to get the group moving in the right direction."

-"The role really doesn't change, but I think their perception of my role changes. They don't understand."

-"[future role in IPE] I think more advocate than mentor."

Participant 8

-"I think I would hope to be a mentor to faculty, and I guess it depends how you define mentor. There are probably some individuals who have taken in

	what I've said when they want to develop an IPE experience, and they go out and do it. I'm not quite sure if that's how I'd…Maybe faculty come back [to our office], and besides speaking in regards to wanting to learn more about IPE, as much as our office continually offered IPE educational opportunities to learn more…and they attend those."
	- "I think of a mentor as someone who provides guidance or advice when sought out. I guess a mentor can sometimes initiate communication. But usually I think of a mentor as someone who kind of sits back, provides advice, and then when the mentee wants some guidance they'll come and seek that. Maybe that's not the most progressive level of mentorship. What I do when a faculty member comes in and they want to create an IPE experience, I also ask them if they're interested in research. If they're going to spend so much time and effort in creating a well-designed educational activity, why shouldn't they look to see if it's beneficial in terms of student learning?"

Table 5. Faculty Role Data. This table represents the themes identified within the faculty role category and includes the supportive text from the participant interviews.

Faculty learning from IPE. What do faculty learn from their participation in IPE programming? The first theme determined from the data related to this category was student perceptions. Half of the participants discussed the importance of the students' experiences from IPE programming related to professional development. The second theme identified was value in collaboration. A few participants identified what they learned from collaborating with other health professionals. Table 6 presents the data from the faculty learning from IPE category.

Theme	Supportive Text
Student **Perceptions**	*Participant 1* -"So I guess my attitude and opinion before was 'this is going to be awesome, everyone's going to benefit, and there's going to be great outcomes.' And then after it's 'well, I guess it really is an individual experience', and me as the facilitator, I needed to prepare them more for what to expect." *Participant 2* - "I think one of the big things about IPE is understanding that limitation and being able to figure out and ask for help, or work with the strengths of the people that would be able to help. How, now, can that

collaboration happen? I think that's something that the students, as we talked about it, were able to articulate better after they realized that it wasn't the end of the world about certain things. I think that that's interesting, how it worked."

Participant 3
-"I've also learned that the students want more of it. Once we take them through, and we only do it once every semester, they come out telling us, "Why don't we do more of that?" That's the big thing that sticks with me every time we sit down and we say, 'You know what? We should be doing more of that. Yeah, we SHOULD be doing more of that.' Then everyone gets busy and sidetracked. I think those are the two important things. I think the first one being that the students really enjoy it and would like to have more."

Participant 7
- "[regard to IPC between students] then I started to listen in or at least take notice, and they're asking each other clinical questions! The medical students are asking the pharmacy students about drugs, and the pharmacy students are asking the medical students, 'What does this medical term mean? What happens when somebody comes in with this?' They're doing it on their own which is really cool, just giving them that opportunity to do that. I've noticed the last couple groups have been really good about proactively trying to learn from each other."

Value in Collaboration	*Participant 4* - "As a faculty, I learned to get outside of the silo. There's some benefit, even enjoyment, in collaborating with other professionals." *Participant 5* - "I've learned that, first of all, it's fun to do. You get to work out of your own vacuum. It's always nice to work with other faculty and hear their ideas and get their enthusiasm." *Participant 8* - "I've personally learned that collaboration goes beyond just faculty members. Collaboration is needed throughout the university…with our librarians to help us with literature reviews…to working with security so that we can have a late-night IPE experience because that's the only time faculty members could find the time…security to be as visible as possible so that students feel comfortable walking out of the IPE experience…to letting them know today (because we have two campuses) that we have 150 cars added on to our campus, so what extra garages can we open for students that are visiting us today…to the office of research services, because we're putting in so many IRB applications for research. So working with them so we don't have so

	many hiccups when we apply for research exemption or expedited. We truly do need to collaborate across not just faculty members and traditional programs, but different support systems of our university. The other thing that I truly have learned is that I know NEXUS provides a center where you can collaborate online in exchange of ideas, and I know that online is the wave of the future, but to me it's so much better through conversation like you and I are having…or face to face conversation…when you're talking about IPE. Even though team-based care has been pushed for many decades before now, it's just truly becoming more popular now. The face-to-face or voice-to-voice type of communication, I think is just so much more effective. Even though we have this great Center, day-to-day learning about IPE really takes time because you have to find out from all these universities who might be contacts that you could bounce ideas off of…or try to collaborate across universities. I think that's what I've learned…that I have to do better at that. I've learned where I can improve, in terms of bringing back new information to our university."

Table 6. Faculty Learning Data. This table represents the themes identified within the faculty learning category and includes the supportive text from the participant interviews.

Summary

The eight participants provided insight into their experiences participating in IPE programming via interviews that were recorded and transcribed. The data collected was analyzed through four research-based categories: social identity, attitudes toward IPE, roles in IPE, and experiential learning. From the corresponding responses in each category, overarching themes were determined based on concepts identified from multiple case analysis.

The research-based category related to social identity incorporates the two themes, cross professional-culture diversity and interaction hierarchy. The first theme identified was cross professional-culture diversity and encompassed four concepts related to professional culture. The first concept being the academic silo. Participants' responses to the interview questions supported that academic health programs function in silos and rarely venture out to collaborate with faculty from other health programs. The second concept identified was professional bias.

Participants' responses supported that professional bias is present in health science education programs. The third concept was interprofessional appreciation. Participants identified the need for appreciation and respect for other professions to allow for effective IPC. The final concept was identifying interprofessional communication because communication styles and preferences develop within professions. The second overarching theme identified from the data related to the social identity category was interaction hierarchy. The participants identified limited variations of health disciplines who participate in IPE programs, both in the literature and from personal preference. These two themes provide support for the affect IPE participation has on faculty members' social identity.

The next research-based category established is the attitudes of faculty toward IPE, which directly relates to the next secondary research question. This category encompasses three established themes from the data. The first overarching theme is perseverance. This theme was determined based on challenges reported by participants in IPE program development. The second overarching theme identified is professional competence. This theme was developed from participants acknowledging the clinical demands for students to be ready for IPC post-graduation. The third theme was self-directed learning because all the participants report that initially they took the lead to study what IPE was and how to successfully develop programs for students. These three themes assist in understanding how faculty's participation in IPE programming affects their attitudes toward IPE.

The third category established in this study is the faculty members' role in IPE after participating in IPE programming and this category relates to the third secondary research question. The theme that was identified from the participants' responses was related to faculty's interest in future role expansion in IPE. All participants identified an interest in further

developing their role in future IPE programs, although at different levels of expansion. Understanding the faculty members' goals related to their role in IPE is helpful to understand their commitment to participation in future IPE programming.

The final research-based category is related to the participant's learning from IPE experiences and includes two themes: student perceptions and value in collaboration. The first theme was established as student perceptions. Despite students' wavering perceptions of their IPE experience, faculty identified that learning still occurs for students. The second theme highlighted that faculty find value in collaboration with other health faculty. All participants acknowledged the benefit of working with other health professional faculty for the common goal of providing IPE programs to the students. Together, these two themes help us to understand what faculty learned from their participation in IPE programming.

Overall, the participants' responses provided a solid understanding of how IPE program participation affects faculty. The data analysis related to social identity, attitudes toward IPE, roles in IPE, and experiential learning facilitate a deeper level of understanding of the internal and external factors related to faculty's involvement in IPE.

CHAPTER 5

CONCLUSION

Interprofessional education is a global initiative that requires faculty to champion the

cause. Currently, the clinical demand for IPE preparation in entry-level health professional

programs is met with a low supply of faculty interested in IPE development. Many barriers to

IPE exist for faculty, but some are still able to implement successful programming. This study

included interviews with faculty who participated in IPE programs to better understand how their

experiences shape their social identity and attitudes toward IPE. A review of the research

questions and responses will be followed by the interpretation of the findings, implications,

recommendations for action, and recommendations for further study.

Review of Research Questions and Responses

The principle research question for this study was how does faculty experience of

initiating, developing and delivering IPE in the didactic preparation of health professional

students impact faculty members? Secondary research questions were developed to answer this

overarching question. Each secondary question provided a categorical role in organizing and

analyzing the data. The research-based categories established were social identity, attitudes

toward IPE, faculty role in IPE, and faculty learning experience. The secondary questions and

the corresponding themes found will be reviewed by each research-based category.

Social Identity

How does the faculty experience of participating in IPE programming shape faculty

members' social identity? This secondary research question resulted in the formulation of two

themes from the participants' responses. First, the theme of cross professional-culture diversity

identified the presence of academic silos between health education programs, professional bias

among faculty, varying levels of interprofessional appreciation, and dissimilar interprofessional communication. The second theme identified was interaction hierarchy. This theme revealed that health professional faculty prefer IPE experiences with programs that are clinically relevant to their profession. This includes health professionals that they would regularly interact with in the clinical setting.

Faculty Attitudes Toward IPE

How does participating in IPE programs contribute to faculty members' attitudes toward IPE inclusion in curriculum? Three themes resulted from this research focus. First, perseverance was a common theme the participants acknowledged when discussing how they overcame external limitations to promote IPE programming. Next, participants recognized that professional competence in IPC was an entry-level expectation for post-graduates to be competent in functioning as an interprofessional team member. Lastly, all participants identified themselves as self-directed learners of IPE, with no administrative support identified.

Faculty Role in IPE

How does participation in IPE programming impact faculty members' perceptions of their role in conducting IPE programming? The one theme established from this research-based category was role expansion among faculty who participate in IPE programming. All the participants identified an interest in expanding their role in IPE at the very least. Not one participant reported a lack of interest in participating in future IPE programs.

Faculty Learning Experience

What do faculty learn from their participation in IPE programming? Two themes emerged from the results related to faculty learning experience. First, student perceptions of the IPE experiences were identified as helpful because they provided the participants with an

understanding of the student perceived benefits and consideration for future program

modifications. Second, the participants found value in collaborating with other health

professional faculty because they got to break out of their academic silos. The responses suggest

the IPC experience between faculty creates enthusiasm for IPE.

Interpretation of Findings

Analysis of the results produced four conclusive findings to answer the secondary

research questions. A table displays the completed modified thematic chart (see Table 7)

representing each secondary research question, the theme(s), corresponding finding, outcomes or

consequences, and the analytic category. The following findings will be discussed as they relate

to the results and the current literature.

Research Questions/Category	Theme(s)	Finding Statement	Outcome / Consequence	Analytic Category
How does the faculty experience of participating in IPE programming shape faculty members' social identity? -Social Identity Category	Cross Professional-Culture Diversity -*academic silo* -*professional bias* -*interprofessional appreciation* -*interprofessional communication* Interaction Hierarchy	Faculty who participate in IPE expand their interprofessional identity, and often choose to participate in IPE programs with health disciplines that they believe are most clinically relevant.	Interprofessional education requires a champion among faculty to initiate the process with other disciplines; however, limiting IPE discipline participants in programming leads to lost opportunities for students to experience IPE.	Interdepartmental interaction is limited in academia and does not readily encourage IPE faculty development.
How does participating in IPE programs contribute to faculty members' attitudes toward IPE inclusion in	Perseverance -*Purposeful IPE* -*IPE buy-in* Professional Competence	Despite barriers to IPE program development and limited administrative support, faculty persevere to	Interprofessional educations' future sustainability in academic programs depend on	Faculty with experience in IPE are the key to sustainable IPE programming in curriculum.

curriculum? -Attitudes Toward IPE Category	Self-Directed Learning	promote best clinical practice through IPE programming inclusion in curriculum.	administrative support for faculty development to promote IPE curricular inclusion.	
How does participation in IPE programming impact faculty members' perceptions of their role in conducting IPE programming? -Faculty Role in IPE Category	Role Expansion	Faculty who participate in IPE programs often want to expand their role in future programming.		
What do faculty learn from their participation in IPE programming? -Faculty Learning Experience Category	Student Perceptions Value in Collaboration	Faculty learn that they appreciate the IPC experience with faculty from other disciplines, and students benefit from IPE experience.	Faculty develop a greater appreciation for other health professionals through collaborating and acknowledge that the students benefit from IPE programs.	Interprofessinal education programming equally benefits student professional development, as well as faculty interprofessional development.

Table 7. Modified Thematic Chart Completed. Complete modified thematic chart continued from results.

Social Identity Finding

The social identity theory (SIT) acknowledges that everyone has a personal identity and a group identity (Burford, 2012). Applying SIT to the participants in this study, the parallel ideology is that each faculty has a professional identity and an interprofessional identity. The responses from participants generated an awareness of the factors that contribute to the development of faculty identity, both professionally and interprofessionally. The first finding of

this study is that faculty who participate in IPE expand their interprofessional identity, and often choose to participate in IPE programs with health disciplines that they believe are most clinically relevant.

The academic environment silos health professional programs to focus education on the skill development and content knowledge specific to that profession. This education strategy is instrumental in assisting students in developing their professional identity. However, the IPC standards for health team management of patient care require health providers to share a group identity with other health professionals. The group interaction needs to be collaborative and effective, with a common language used and understood. The responses from the participants reveal that IPE program development is challenged by academic silos and professional bias.

The diversity in curricular design between educational health programs is a common external barrier to IPE development reported by faculty (Abu-Rash et al., 2012). Despite differences in curricular design, this challenge shouldn't eliminate the possibility for health programs to participate in an IPE program. In fact, the findings from this study reveal that faculty who have experience in IPE programs break out of their silo by either taking the initiative to reach out to faculty from other departments or they are willing to participate in IPE when approached. Why is initiating IPC easier for some faculty than others? Could it be that some faculty, like students, have less experience collaborating? In fact, many seasoned faculty are less likely to have practiced IPC in the clinical setting, making them less likely to participate in IPE programming (Hoffman & Redman-Bentley, 2012). Today, newer faculty are being hired with the expectation that IPE programming will be developed, and it is likely that they have practiced IPC in the clinical setting.

While newer faculty with IPC clinical experience are being hired suggests that more IPE programs will be developed, could faculty be limiting IPE experiences for their students? The findings from this study reveal that faculty prefer to develop IPE programs with disciplines they are familiar collaborating with in the clinical setting. This suggests that interaction hierarchy exists when faculty are choosing who to include in IPE programs. In fact, this finding directly correlates with social saliency. From the point of social saliency, people identify with the group in which they have a good fit. This ideology supports the finding that faculty choose to work with disciplines that they are most familiar with in the clinical setting. While there is no current literature that addresses this professional bias in IPE development, it was acknowledged by a participant that the literature related to IPE programming is often represented by the same common allied health disciplines. However, a few participants in this study suggested that collaboration with any health discipline is beneficial to students. While interaction hierarchy does exist, the responses from this study revealed that faculty who participate in IPE with unfamiliar disciplines develop a greater appreciation for that disciplines' role in patient care.

Regarding professional values, faculty who can set aside their professional bias and appreciate all health disciplines, demonstrate professional excellence to their students. Meanwhile, faculty who limit IPE experiences for students because of their lack of appreciation for another health discipline are demonstrating "academic elitism" (Hoffman & Redman-Bentley, 2012). Moreover, faculty who model restricted collaborative practice risk passing this attitude on to their students. Loversidge & Demb (2015) identify that enculturation, defined as the exposure of personal norms to another person through unconscious repetition, has a negative influence on students (Enculturation, 2017). Whereas, demonstration of values and collaboration result in a positive influence on students (Loversidge & Demb, 2015).

How does this transformation from silo to free-range interprofessional practice occur to promote IPE? Bainbridge (2014) suggests that training for health care professionals is less effective when it focuses on "what" collaboration is and, instead, the training focus should be about "how" to collaborate with other health professionals. Faculty need to expand their collaborative skills and acknowledge other health disciplines around them. In fact, faculty from a teaching hospital reported feeling better about social factors, such as engaging with others, developing relationships, and working in teams, after participating in IPE faculty development workshops (Christofis's, DeMatteo, & Penciner, 2015). Faculty need to experience collaboration with others to expand their interprofessional identity, and the university administration could assist in facilitating this process to promote sustainable IPE program development.

Faculty Attitudes Toward IPE Finding

The TLT identifies three steps in the process of transforming learning. First, there needs to be an experience, or experiential learning, that the learner participates in directly (Sargent, 2009). Next, the learner needs to have time to reflect on their experience. Once time has allowed for thoughtful reflection, the learner begins to experience personal development by formulating new thoughts based on their previous experience. The participants in this study all value IPE in the curriculum, but acknowledged that they have a stronger sense of appreciation for IPE from their experiences. The second finding from this study suggests that, despite barriers to IPE program development and limited administrative support, faculty persevere to promote best clinical practice through IPE programming inclusion in curriculum.

Abu-Rish et al. (2012) identify the top three barriers to IPE development as scheduling, learner-level compatibility, and time required to prepare. Despite these common barriers, faculty persevere and are successful in developing IPE. On the opposite end of the spectrum, Lawlis,

Anson & Greenfield (2014) identify many enablers for developing successful IPE programs, including IPE champions, shared interprofessional vision between faculty, and enthusiasm of the facilitator. Interprofessional education program development is a careful process of balancing the enablers to succeed with the barriers presented. Or, the support from administration could assist in reducing the external barriers limiting the full potential of IPE development. A discussion will follow regarding the challenges in IPE development that could be alleviated with administrative support and the motivational factors that drive faculty's ambition to promote IPE inclusion in the curriculum.

While not identified as a top barrier, a lack of administrative support directly impacts IPE development. All the participants stated that they did not have support from administration regardless of the extra time and effort that was required to create IPE programs. The responsibility of IPE development shouldn't fall solely on the shoulders of the faculty. In fact, IPE is a standard in the requirements of most health professional accrediting agencies, which makes this a leadership initiative that would benefit from collaborative work between faculty and administration. However, administrative attitudes toward IPE development vary. Despite a poor response rate, Makino et al. (2015) report a substantial difference in the attitudes of deans from nursing schools across 4 countries. The deans from rural areas reported a significantly higher rating of support for IPE programs than those from urban areas. The authors (2015) suggest this difference is directly related to the social disparities present in rural communities with less nurses available for patient care. This implies that academic administrations are shaped by their environment. In this case, a rural region benefits from IPC to promote the health care for the community, which led to an administration in support of IPE development. In the US, health policy places high expectations on collaborative patient care practices. Administrations may

have to join forces with faculty to support IPE program development to prepare competent health professional graduates to meet the demands of the clinical environment and accrediting standards for health professional education programs.

Health policy shapes our health care system by implementing interprofessional practice standards, and students need to be prepared properly for the clinical collaborative environment. Responses from participants described the gap between the academic preparation and the clinical demands related to IPC. Students want to be competent and properly prepared for the clinical world, including having IPE opportunities in the classroom setting. DeMatteo & Reeves (2013) identified health professional students reported a sense of responsibility to practice IPC in response to the current restrictions and limitations in health care. Students felt a responsibility to practice IPC to not only ensure the best patient outcomes, but also to assist in alleviating the high cost of health care. They also believed that they need to promote themselves to other health professionals with the goal to contribute their expertise to the collaborative team. Interprofessional practice is a universal health system approach to providing optimal patient care recognized by students and faculty.

When considering the champions of IPE programming, there are many external factors that drive faculty commitment to continuing program development. These champions see beyond the barriers to IPE. While the literature lacks specific details of academic administrative shortfalls, this study ascertains that during their initial descent into IPE program development, all participants were self-driven and self-seeking learners about IPE development. The experience of IPE further propels faculty forward toward IPE inclusion into curriculum. Furthermore, they focus on the benefits of preparing students to practice collaboration with other health professionals to promote optimal patient care. Overall, collaborative training leads to improved

quality of patient care and reduces the cost of health care. The key to IPE sustainability in academic health professional programs is faculty having the foresight to see the long-term benefit to a short-term investment.

Faculty Role in IPE Finding

The participants in this study expressed their interest in expanding their role in future programming, which is our third finding. Participants reported enjoying the experience of learning with and about other health professionals in IPE programming. Faculty also feel a greater sense of confidence in their future role in IPE programming. The overall experience of IPE produced enthusiasm, inspiration and excitement for the participants.

Anderson, Thorpe, & Hammick (2011) investigated the before and after experiences of 13 educators teaching in their first IPE program. Initially, the pre-teaching response from the educators about IPE was significantly negative. Interviews conducted before the IPE teaching experience included complaints from faculty that IPE required extra time and was problematic. The educators suggested that IPE potentially limited the overall student benefit because of mixed academic abilities between the students and a loss of discipline specific course time. After the educators participated in teaching one IPE program, their opinions toward IPE and its benefits softened, with some educators inspired by the experience. Interviews from the post-teaching experience suggested that educators enjoyed the program. Reports included that they learned about other health professions and they received positive feedback from the students, as well as other positive statements.

The sustainability for IPE requires faculty to champion programming. One participant suggested that the additional workload in IPE development could potentially discourage them from participating in future IPE programs. However, soon after this comment, the same

participant acknowledged they had a strong interest in initiating an IPE course in the following semester. The researcher interprets the participants' interest in developing an IPE course as an attempt to move from their previous experience of using a decentralized IPE program model to a more centralized IPE program. This approach would minimize the challenges related to scheduling and other external barriers. This is an example of a faculty morphing their role in IPE to simplify the process, and possibly expand the quality of IPE delivery.

The benefits of IPE extend beyond the students and health care. Faculty are inspired to work with other health professionals in academia through their IPE experience. Relationships are built and organizational communication is strengthened because more faculty are working together instead of working alone. The participant responses demonstrate shared leadership is required to promote IPE growth and sustainability.

Faculty Learning Experience Finding

The fourth and final finding from this study reveals that faculty learn that they appreciate the IPC experience with other disciplines, and students benefit from IPE experiences. The transformative learning theory requires personal reflection to understand what new perceptions contribute to knowledge. Throughout the interviews, participants made comments, such as "I didn't think of that until now." The interview questions required a significant amount of reflection about IPE experiences. This practice lends itself well to stimulate participants to formulate a better understanding about what they learned from the experience. While the barriers to IPE programs are plentiful, faculty are committed to providing interprofessional learning experiences for students. Responses from the participants in this study identified that faculty held their IPE programs to high standards and valued student perceptions of their experience. However, not all students reported positive experiences from the IPE programs.

Despite occasional lackluster student reports, participants acknowledged that there are benefits to positive and negative IPE experiences for students. Participants recognized that it was important to them to measure student perceptions so they could improve future IPE programs.

Students are drawn to IPE programs for many reasons. Hoffman, Rosenfield, & Nasmith (2009) identify students become interested in IPE to benefit patient care, enhance their future career, to satisfy their personal curiosity, because of positive clinical IPC experiences, and because they believe it to be important. The students are on board with IPE and faculty acknowledge that the student interest is another driving-force for them to continue its development. The participants in this study indicated they enjoyed the IPE program experience and collaborating with other health professional faculty. As described earlier, faculty naturally maintain a certain level of professional bias. However, through collaborative interaction, they see beyond those boundaries and find ways to work with others. In the end, they are often inspired and eager to work with other health disciplines in the future.

Limitations

This study included data from eight interviews collected from multi-disciplinary faculty with IPE program development experience. One limitation is the number of IPE experiences varied between the eight participants, with a range of experiences including one, to greater than five. This variance may have an impact on faculty perceptions of their experience(s). For example, faculty with less experience are more likely to view the process differently than someone with multiple experiences. Related to their future roles in IPE, faculty with greater experience might be interested in taking on a bigger role, possibly even initiating an IPE program. Another limitation is the small sample size of eight participants does not represent the larger population of health professional faculty.

In retrospect, the researcher would have included an interview question directly about administrative support. It was a common point of discussion during the interviews that seemed to contribute to considerable aspects of the study. In addition, the researcher would have included inquiry into the participants' goals related to IPE programming. This piece of information could have provided more insight as to the direction they are interested in going in the future related to IPE.

Finally, the researcher acknowledges her own bias for supporting IPE program development. As a dual licensed occupational therapist and physical therapist, the researcher strongly values IPE development. However, strategies were put in place to minimize the researcher's bias, including triangulation of the data, external audit of the themes and member checks. The findings support the research questions and were determined directly from the results.

Implications

The experience of IPE creates a cascade of benefits to faculty, students, and patient-care. First, the experience impacts the student and allows them to practice collaboration with other health professional students. In theory, that IPE experience carries over to their post-graduation clinical work where they continue to practice collaboration. The ultimate hope is that the IPE program that was initiated during the student's academic training benefits patient care. Faculty have a similar experience through collaboration during IPE programs with other health professionals. In fact, faculty benefit from learning collaborative skills and are more likely to participate in IPE programs in the future. The findings of this study directly impact faculty of health professional programs and administrative leadership.

Interprofessional education needs champions to facilitate IPE program development. As identified earlier, faculty are less likely to participate in IPE programs if they themselves have not experienced collaboration with other health professionals while working in the clinical environment (Hoffman & Redman-Bentley, 2012). This suggests that faculty without collaborative experience create a disconnect between academic preparation and the clinical setting. However, all faculty are responsible for upholding evidence-based education practices, and that includes IPE. This study identifies the need for faculty to champion IPE development and collaborate with other health disciplines to promote sustainable IPE.

There are a many ways that administration could support IPE programming. Hall and Zierler (2015) identified a key lesson to promoting IPE is to secure the commitment of the administrative leadership. The authors (2015) note that progress in developing IPE will not be sustainable without administrative leadership. Participants in this study confess they put extra time and effort into developing IPE programs with little to no reward. The long-term effect that this work-reward imbalance has on faculty will eventually curtail the promising future of IPE programs. This is problematic when considering that majority of health profession's education accrediting bodies are requiring the inclusion of IPE in entry-level programs. Specifically, in occupational therapy and physical therapy programs, if faculty are not instrumental in delivering IPE then this will lead to violations in their professional education accrediting standards. Administrative leadership needs to support current IPE champions and facilitate the development and growth of future IPE champions. The findings from this study support the need for administrative support.

The success of IPE programs requires commitment from faculty and administration. As change has been slow in health care to incorporate IPC, it has also been slow to incorporate IPE

into academia (WHO, 2010). While this study finds that challenges to IPE programming are multi-faceted, it also reveals that implementing IPE programming is not impossible. Faculty development to champion IPE program development coupled with administrative support would go a long way to help reduce the external barriers to IPE development, such as curricular design issues. This study recognizes that faculty were the champions of IPE yesterday, as they are today, and will be tomorrow.

<center>**Recommendations for Action**</center>

There are many opportunities to develop effective IPE using creative strategies, despite external barriers. However, from this study two recommendations have emerged from the results. First, initializing university support would provide the necessary leadership to facilitate IPE program development for faculty. Second, objectifying the benefits of IPE through longitudinal measurement of the progression would support the long-term gains of IPE in entry-level programs. Both recommendations would benefit the sustainability of IPE program development and improve faculty interest in IPE.

There are three areas for support that administration could assist faculty to promote better IPE development and sustainability based on the findings of this study. First, administration could provide faculty development trainings to promote IPE development and encourage collaboration between interdisciplinary faculty. The more that faculty understand IPE the more likely they will be willing to participate in it. Therefore, every faculty member should have an experience in IPE to expose them to the process and to some degree, encourage them to move out of their comfort zone. Argyris (1991) cites that there are two common adult learning systems, a single loop and double loop. Single loop identifies learning that is not modified to reach the outcome. Often, this learning system doesn't encourage positive results. In this case,

the single loop is demonstrated by faculty who do not want to participate in IPE because of their preconceived attitudes and views. However, administration isn't questioning the outcomes of their choice to not initiate IPE. Whereas, double loop learning encourages the learner to modify their method to reach the outcome, and it isn't focusing on the individual faculty member, but rather the organization. For example, exposing all faculty to IPE through education about the process and its benefits leaves room for each of them to consider what they learn. Future voluntary trainings would further assist faculty in transforming their attitudes toward participating in IPE. Incremental exposure doesn't force faculty to do anything they don't want to do, which would lead to resistance. Instead, it provides a glimpse into the experience and allows them to choose if they want to participate in IPE.

Second, administration should support faculty interested in developing IPE through alternative methods. First, electives are a way to integrate IPE without directly changing curriculum. For example, a centralized model for IPE includes building a course solely focused on IPE, and this offers faculty the opportunity to bring IPE to their students without the barriers of finding time or space (Swisher et al, 2010). Second, providing faculty with resources to deliver IPE in meaningful ways offers a variety of methods to the instructor. For example, simulation of patient care through use of technology is a hands-on approach to IPE programming. Finally, financial support of IPE programs through larger space rental and refreshments for students would assist faculty in their IPE programs. Large space to create IPE programs is not always readily available and other resources might need to be utilized. However, a cost for this space may be required. In addition, IPE experiences are often lengthy and offering student's refreshments is often helpful to ensure their full participation. Administrative support could assist faculty in developing effective and successful IPE programs.

Finally, administration need to support the expansion of faculty roles in IPE development through use of incentives. Incentives provide faculty with recognition for their additional time and efforts required for IPE. These could include monetary payments to reflect the additional time faculty spend in developing these programs. Another incentive is establishing release time for faculty to develop and deliver IPE. Release time would provide faculty with time structured within their workday to adequately prepare programs and reduce required time needed outside of their regular coursework responsibilities. Administrative support and leadership in IPE development could transform faculty support and promote the sustainability of IPE.

As IPE continues to grow, evidence of its benefits will be necessary to maintain its sustainability. Currently, there are measurement tools that measure student experiences in IPE programs. These measurement tools objectify the benefits of IPE programs related to the student's readiness to participate in IPC. However, the tools don't address clinical or post-graduate performance in collaboration in the clinical setting. The theoretical expectation is for IPE experiences to carry over into the clinical setting. While positive student perceptions of IPC are an indicator that they learned something from the IPE experience, there is no literature currently to suggest that academic IPE experiences carry over to clinical practice. A longitudinal measurement tool would provide objective measurements to determine if carry over does indeed occur. An objective tool would provide a comprehensive record of the student's development in collaboration. If such a tool existed and was sensitive to the student's performance in developing collaborative skills throughout their academic coursework and clinical experiences, then faculty might have a greater appreciation for the efforts of IPE programming. It would be a way to view the outcomes of IPE programming in a more black and white tone, rather than the unknown gray,

as is the current method. Overall, the ability to objectify IPE carryover from academia to the clinical setting, would benefit the sustainable growth of IPE.

Administrative support must be present for IPE program development to prosper in entry-level health programs. Support could include incentivized opportunities for faculty to participate in IPE programs, faculty development trainings to encourage collaboration, and development of IPE program models to reduce external barriers. Furthermore, the design of a longitudinal IPE tool to objectively measure student interprofessional development would lend support for the efforts of the faculty who currently champion IPE programming. Together, these two recommendations would assist in pushing IPE development forward in the academic setting and promote sustainability for IPE programs.

Recommendations for Further Study

The literature supports interprofessional education and there are many contributions related to student benefits. However, sustainability is the focus that needs to be addressed in the literature. Looking closer at sustainability, it requires commitment from faculty. However, faculty require support from their administration. Future research should address the current level of support from administration and how that impacts the success and sustainability of IPE program development.

As mentioned previously, longitudinal studies to objectify the long-term benefits of IPE programs would help to promote support for future IPE. Research can assist in developing a deeper understanding not only if IPE benefits patient care from the level of student exposure, but also how it benefits patient care. More specifically, are there certain IPE models that work better than others? Is a centralized model better than a decentralized model? The opportunity for

research in IPE is endless and all of it is valuable to the future of health professional student education and patient care.

Conclusion

Interprofessional education programs are slowly developing in entry-level health professional programs in response to the clinical demand for graduates to be prepared for IPC. This multiple case study identified that participation in IPE programming affects faculty overall. More specifically, the findings suggest that the experience of IPE affect multiple aspects of faculty development, including a shift in their social identity and their attitudes toward IPE.

While barriers to IPE exist in academia, it is the faculty that lead the efforts and achieve the success in IPE. More importantly, faculty identify benefits to participating in IPE. These experiences offer faculty, like students, the opportunity to learn with and about other health professionals. Learning more about other health professions creates a greater appreciation for each other's role in patient care. While there is limited administrative support in addressing issues related to academic structure, faculty are finding ways to create IPE experiences to uniquely fit the un-level curricular design between education programs. What's more, the students perceive IPE as an opportunity to learn how to collaborate from the experiences and they enjoy it. Interprofessional education is a unique approach to promoting collaboration between students from multiple health education programs. While the process of IPE development is challenging, the outcome leads to a more perceptive, inspired and fulfilled faculty.

REFERENCES

Abu-Rish, E., Kim, S., Chloe, L., Varpio, L., Malik, E., White, A.A., Craddick, K., Blondon, K., Robins, L., Nagasawa, P., Thigpen, A., Chen, L.L., Rich, J., & Zierler, B. (2012). Current trends in interprofessional education of health sciences students: A literature review. *Journal of Interprofessional Care, 26*(6), 444-451. Doi: 10.3109/13561820.2012.715604

Anderson, E.S., Thorpe, L.N., & Hammick, M. (2011). Interprofessional staff development: Changing attitudes and winning hearts and minds. *Journal of Interprofessional Care, 25*, 11-17. Doi: 10.3109/13561821003721311

Argyris, C. (1991). Teaching smart people how to learn. *Harvard Business Review*. Retrieved from: https://hbr.org/1991/05/teaching-smart-people-how-to-learn

Bagatell, N. & Broggi, M. (2014). Occupational therapy and physical therapy students' perceptions on short-term interprofessional education model. *AOTA Education Special Interest Section Quarterly, 24*(2), 1-4. Retrieved from: http://www.aota.org/Practice/Manage/SIS/SISs/EDSIS.aspx

Bainbridge, L. (2014). Interprofessional education in allied health: Is this yet another silo? *Medical Education, 48*, 225-233. Doi:10.1111/medu.12414

Bartunek, J.M. (2011). Intergroup relationships and quality improvement in healthcare. *BMJ Quality & Safety, 10*(1), i62-i66. Doi:10.1136/bmjqs.2010.046169

Baxter, S.K. & Brumfitt, S.M. (2008). Professional differences in interprofessional working. *Journal of Interprofessional Car, 22*(3), 239-251. doi: 10.1080/13561820802054655

Bloomberg, L.D. & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end.* Thousand Oaks, CA: Sage Publications.

Brown, J., Lewis, L., Ellis, K., Stewart, M., Freeman, T.R. & Kasperski, M.J. (2011). Conflict on interprofessional primary health care teams- can it be resolved? *Journal of Interprofessional Care, 25*, 4-10. Doi: 10.3109/13561820.2010.497750

Burford, B. (2012). Group processes in medical education: learning from social theory. *Medical Education, 46*(2), 143-152. Doi: 10.1111/j.1365-2923.2011.04099.x

Canadian Interprofessional Health Collaborative (CIHC). (2010). *A national competency framework*. Retrieved from

http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf

Carter, R.E., Lubinsky, J., & Domholdt, E. (2011). *Rehabilitation research: Principles and applications* (4th ed). St. Louis, MO: Elsevier Saunders.

Centre for Advancement in Interprofessional Education (CAIPE). (2002). *Interprofessional education – a definition.* Retrieved from http://www.caipe.org.uk/

Christofilos, V., DeMatteo, D., & Penciner, R. (2015). Outcomes of commitment to change statements after an interprofessional faculty development program. *Journal of Interprofessional Care*, *29*(3), 273-275. Doi: 10.3109/13561820.2014.950725

Crossley, J. & Vivekananda-Schmidt, P. (2009). The development and evaluation of a Professional Self Identity Questionnaire to measure evolving professional self-identity in health and social care students. *Medical Teacher, 31*(12), e603-e607. Doi: 10.3109/01421590903193547

DeMatteo, D. & Reeves, S. (2013). Introducing first year students to interprofessionalism: Exploring professional identity in the "enterprise culture": A Foucauldian analysis. *Journal of Interprofessional Care, 27*, 27-33. Doi: 10.3109/13561820.2012.715098

Enculturation. (2017, March 26). *About enculturation.* Retrieved from

    http://enculturation.net/about

Fransworth TJ, Seikel JA, Hudock D, & Holst J. (2015). History and Development of

    Interprofessional Education. *Journal of Phonetics and Audiology, 1*(1), 101-106.

    doi:10.4172/jpay.1000101

Gucciardi, E., Espin, S., Morganti, A. & Dorado, L. (2016). Exploring interprofessional

    collaboration during the integration of diabetes teams into primary care. *BioMed Central*

    Family Practice, 12(12), 1-14. Doi: 10.1186/s12875-016-0407-1

Hall, P. (2005). Interprofessional teamwork: Professional cultures as barriers. *Journal of*

    Interprofessional Care, 1, 188-196. Doi: 10.1080/13561820500081745

Hall, L.W. & Zierler, B.K. (2015). Interprofessional education and practice guide no. 1:

    Developing faculty to effectively facilitate interprofessional education. *Journal of*

    Interprofessional Care, 29(1), 3-7. Doi: 10.3109/13561820.2014.937483

Hoffman, S.J., Rosenfield, D. & Nasmith, L. (2009). What attracts students to interprofessional

    education and other health care reform initiatives? *Journal of Allied Heath, 38*(3), 75-78.

    PMID: 19753417

Hoffman, J. & Redman-Bentley, D. (2012). Comparison of faculty and student attitudes toward

    teamwork and collaboration in interprofessional education. *Journal of Interprofessional*

    Care, 26, 66-68. Doi:10.3109/13561820.2011.602441

Hogg, M.A. & Reid, S.A. (2006). Social identity, self-categorization, and the communication of

    group norms. *Communication Theory, 16*, 7-30. ISSN: 1050-3293

Institute for Healthcare Improvement. (2009). The triple aim: Optimizing health, care and cost.

    Healthcare Executive, (Jan/Feb) 64-66. Retrieved from:

http://www.ihi.org/engage/initiatives/TripleAim/Documents/BeasleyTripleAim_ACHEJa
n09.pdf

Interprofessional Education Collaborative. (2011). *Core competencies for interprofessional
collaborative practice*. Retrieved from: http://www.aacn.nche.edu/education-
resources/ipecreport.pdf

Khalil, H., Orchard, C., Laschinger, H.K.S. & Farah, R. An interprofessional socialization
framework for developing an interprofessional identity among health professions
students. *Journal of Interprofessional Care, 27*(6), 448-453. Doi:
10.3109/13561820.2013.804042

Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory.
Journal of Transformative Education, 6(2), 104-123. Doi: 10.1177/1541344608322678

Lash, D.B., Barnett, M.J., Nirali, P., Shieh, A., Louie, M.C. & Tang, T.T-L. (2014). Perceived
benefits and challenges of interprofessional education based on a multidisciplinary
faculty member survey. *American Journal of Pharmaceutical Education, 78*(10), 1-9.
Doi: 105688/ajpe7810180

Lawlis, T.R., Anson, J., & Greenfield, D. (2014). Barriers and enablers that influence
sustainable interprofessional education: A literature review. *Journal of Interprofessional
Care, 28*(4), 305-310. Doi: 10.3109/13561820.2014.895977

Lindquist, I., Engardt, M., Garnham, L., Poland, F. & Richardson, B. (2006). Physiotherapy
students/professional identity on the edge of working life. *Medical Teacher, 28*(3), 270-
276.

Loversidge, J. & Demb, A. (2015). Faculty perceptions of key factors in interprofessional education. *Journal of Interprofessional Care, 29*(4), 298-304. Doi: 10.3109/13561820.2014.991912

Makino, T., Shinjiro, N., Bumsuk, L., Hiroki, M., Yoshiharu, T., Hiromitsu, S., & Hideomi, W. (2015). Attitudes of nursing school deans toward interprofessional education in Western Pacific Region countries. *Journal of Interprofessional Care, 29*(5), 518-519. Doi: 10.3109/13561820.2015.1027337

McNeil, K.A., Mitchell, R.J. & Parker, V. (2013). Interprofessional practice and professional identity threat. *Health Sociology Review, 22*(3), 291-307. Doi:10.5172/hesr.2013.2951

Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, *74*, 5-12.

Murray, C., Stanley, M. & Wright, S. (2014). The transition from clinician to academic in nursing and allied health: A qualitative meta-synthesis. *Nurse Education Today, 34*(3), 389-395. Doi:10.1016/j.nedt.2013.06.010

Parsell, G. & Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education, 33*, 095-100. Doi: 10.1046/j. 1365-2923. 1999.00298.x

Rose, M.A., Smith, K., Veloski, J.J., Lyons, K.L., Umland, E. & Arenson, C.A. (2009). Attitudes of students in medicine, nursing, occupational therapy and physical therapy toward interprofessional education. *Journal of Allied Health, 38*(4), 196-200. AN: 105273214

Saini, B., Shah, S., Kearey, P., Bosnic-Anticevich, S., Grootjans, J. & Armour, C. (2011). An interprofessional learning module on asthma health promotion. *American Journal of Pharmaceutical Education, 75*(2), 1-10. Doi: 10.5688/ajpe75230

Sargeant, J. (2009). Theories to aid understanding and implementation of interprofessional education. *Journal of Continuing Education in the Health Professions, 29*(3), 178-184. Doi: 10.1002/chp.20033

Swisher. L.L., Woodard, L.J., Quillen, W.S. & Monroe, A.D.H. (2010). Centralized and decentralized organizational models of interprofessional education for physical therapist and medical students. *Journal of Physical Therapy Education, 24*(1), 12-18. Retrieved from: file:///Users/AndreaKessler/Downloads/JOPTE_Winter_201%20(6).pdf

Wald, H.S. (2015). Professional identity (trans)formation in medical education: Reflection, relationship, resilience. *Academic Medicine, 90*(6), 1-6. Doi: 10.1097IACM.0000000000000731

World Health Organization. (2010). *Framework for action on interprofessional education and collaborative practice*. Retrieved from: http://apps.who.int/iris/bitstream/10665/70185/1/WHO_HRH_HPN_10.3_eng.pdf?ua=1

Yin, R.K. (2009). *Case study research: Design and methods* (4th ed). Thousand Oaks, CA: SAGE, Inc.

Zorek, J.and Raehl, C. (2012). Interprofessional accreditation standards in the USA: A comparative analysis. *Journal of Interprofessional Care*, *27*(2), 1-8. Doi: 10.3109/13561820.2012.718295

APPENDIX A

Participant Information Letter

Dear Participant,

       Thank you for agreeing to participate in the study titled **The Attitudes and Social Identity of Faculty after Participating in Interprofessional Education.** As the principal investigator, your information is maintained with the strictest confidentiality and only I will have access to the data collected and know your identity. You have the right to not participate in the study and quit at any time. If at any time you would like to speak to someone regarding this study, I will give you the name and contact for Olgun Guvench, who is Chair of our Institutional Review Board for the Protection of Human Subjects (Phone: 207-221-4171/email: oguvench@une.edu). You can also contact the Chair for the dissertation committee, Carey Clark (Phone: 707-239-6738/ email: cclark14@une.edu).

       The interview will be scheduled at your convenience and will last 30-45 minutes. The interview is structured with open-ended questions to allow you to provide details that you find necessary. The interview will be recorded and transcribed immediately following. You will receive a copy of the transcription and are free to add any details to the transcription that you find pertinent to the topic. Data will be analyzed using qualitative methods. You will have the opportunity to be informed of the studies' findings, if you so choose. While there are no personal benefits to you, the findings of this study will potentially help to promote Interprofessional Education programming within health programs.

Thank you again for agreeing to participate in this study. I look forward to our discussion in the near future. Do not hesitate to contact me with any questions. My phone number is 412-414-5972 and my email address is kessler009@gannon.edu.

Sincerely,

Andrea Kessler, PT, DPT, OTR/L

APPENDIX B

Interview Script

The Attitudes and Social Identity of Faculty After Participating in Interprofessional Education
Interview Script

Demographics
Person being interviewed: Contact Information: Phone: Email:
Date of Interview: Time of Interview:

Interviewer: Andrea Kessler, PT, DPT, OTR/L
                    Instructor, Dept. of Physical Therapy
                    Gannon University

Other important information:

Introduction to Interviewee: My name is Andrea Kessler and I am a Doctoral student at the University of New England. I am seeking to interview faculty from health professional education programs who have participated in Interprofessional Education programming with faculty from other disciplines. The purpose of this study is to understand if and how the experience of IPE instruction affects the social identity of faculty and their attitudes toward IPE. A copy of the analysis and summary of the findings will be offered to all participants who agree to be interviewed.

Informed Consent
This interview should take approximately 45-60 minutes. Your participation is voluntary, and responses will be compiled anonymously in aggregate. You have the right to decline this interview and if you decline, your decline will be confidential and your anonymity protected. There are no identified benefits to you for participating in this study. However, your responses may benefit the future of IPE delivery in health programs. If you would like to speak to someone regarding our study, I will give you the name and contact for Olgun Guvench who is Chair of our Institutional Review Board for the Protection of Human Subjects (Phone: 207-221-4171/email: oguvench@une.edu).

Would you be willing to talk with me?
_____*Yes, then we will proceed with interview* _____*No, then we will stop*

This discussion will be recorded. Is that okay with you? _____*Yes* _____*No, then we will stop*

Interview Questions

1. Describe your experience in interprofessional collaboration while in the clinical setting prior to joining the academy, and compare that to your interprofessional experiences in academia.

2. Did you hold any beliefs or opinions about IPE programming prior to participating in IPE, and compare that to your beliefs or opinions of IPE after conducting IPE programming?

3. Did you participate in any professional development focused on interprofessional education programming?

4. Please explain your role throughout the interprofessional education programming.

5. What challenges did you face during the IPE program process?

6. Reflecting on your IPE program experience, describe any changes in your personal views of working with faculty from other departments within your college or university.

7. Describe your role in IPE programming in the future.

8. What did you learn from the IPE program process?

Is there anything else you would like to comment on regarding your participation in IPE programming.

Do you have any suggestions of other allied health professionals who would be appropriate and/or interested in participating in this study?

Other:
Would you like to receive a copy of the final report from this study? _____Yes _____No

APPENDIX C

Participant Demographics

Demographics of Participant Health Profession, Years of Practice, Years in Academia and

Number of IPE Program Experiences

Participant	Discipline	Years of Practice	Years in Academia	Academic IPE Experiences
1	Occupational Therapy	19	2.5	2
2	Athletic Training	14	2.5	2
3	Nursing	30	10	3
4	Counseling	35	20	1
5	Radiologic Science	41	34	>5
6	Army Medic Health Care Administration	6 11	10	>5
7	Pharmacy	11	11	>5
8	Physical Therapy	20	11	>5

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>> 1. Figure 2. Centralized Model of Interprofessional Education. p. 14
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     Figure 1. Health and Education System. P. 9

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