POTENTIAL PATTERN

Creating an IPE Infusion Plan: From Foundation to Implementation

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Today's health care system has embraced the model of collaborative interprofessional efforts among health care professionals to achieve desired patient health outcomes. The Academy can offer the foundational experiences needed to support and develop interprofessional patient-centered plans of care for health professional students. This paper explores one institution's approach to the creation of an infusion plan which the authors have termed a "structured immersion approach" (SIA) to interprofessional education (IPE). The SIA supports "Core Signature IPE" experiences within existing silo-based curriculums that allow for interprofessional education experiences and the appreciation of the importance of interprofessional practice in today's health care. J Allied Health 2014; 43(1):e25-e29.

EDUCATORS within today's health care programs recognize that interprofessional education experiences (IPE) within the Academy provide opportunities for awareness, appreciation, and development of one's professional identify as well as an appreciation of the interdependence that exists among professionals.¹ Yet the question faced by many educators is, "What is the most effective way to infuse IPE experiences into traditionally silo- based academic programs?" Attempting to address this question, many institutions and academicians have begun to explore diverse methods to introduce and incorporate IPE as a teaching and learning strategy within established curriculms.² As yet empirical data has only recently emerged supporting IPE's impact on students' abilities to communicate across professions and foster patient-centered care practicies.³

At institutes of higher education the responsibility to create experiential learning opportunities that foster student skill development which supports effective collaborations among health care providers and ensures the highest quality of patient centered-care for entry level practitioners is paramount. Thistlethwaite (2010) suggests that, "a well-structured IPE experience leads to the sharing of information about the roles of other disciplines in the health care team."⁴ Wellmon et al (2012) suggests that by coordinating IPE experiences with welldefined goals, "students have the opportunity to practice communications skills, assume leadership roles, and address barriers to teamwork."5 Educators must continually assess the effectiveness of IPE experiences in meeting the goal of fostering interprofessional practice (IPP) for entry-level practitioners. Frequently, IPE experiences are based upon available personnel, financial and physical resources as well as timing and scheduling issues rather than based upon an identified goal.⁵ Without sufficient resources, clear objectives and ongoing assessment, barriers can emerge that hamper the development of structured, coordinated and effective IPE experiences.

Seton Hall University (SHU) School of Health and Medical Science (SHMS) is committed to creating experiential learning opportunities that foster student skill development necessary to engage in evidenced-based patient-centered care. To meet this goal SHMS has designed an infusion plan based on active learning experiences to develop a community of faculty, students, practitioners and staff that value inter-professional evidenced-based educational experiences. Through these learning experiences a strong founda-

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tion for the development of critically reflective evidenced-based inter-professional health care professionals is emphasized. The infusion plan uses an andragogy learning theoretical perspective to design a continuum of IPE experiences to frame what we have termed a "structured immersion approach" (SIA). In this SIA all IPE are designed to engage students in critically reflective learning opportunities which integrate the acquisition of content knowledge, professional skills and behaviors, and evidenced based perspectives fundamental for successful entry into the healthcare workforce. The SIA promotes a culture of professional discourse and reflection essential to attain a cohesive, collaborative patient-centered plan of care. This report will share our institution's development and infusion plan of the "Core Signature IPE" experiences within our traditional silo-based curriculums. Discussion of faculty development experiences implemented to ensure a consistent perspective regarding the tenets of IPE will be shared. Finally, student and faculty perceptions of the IPE experiences employed will be discussed.

IPE Infusion Plan

The development of the SHMS IPE Infusion Plan began with the formation of a taskforce of volunteer faculty representing the School's graduate programs (Athletic Training, Health Sciences, Physician Assistant, Physical Therapy, Occupational Therapy, and Speech-Language Pathology). Initially, the taskforce met and explored what IPE and IPP meant within each of their disciplines. Recognizing the importance of faculty engagement in the development of IPE experiences school wide, the taskforce members immersed themselves in IPE literature and used the literature to create a survey that queried faculty regarding their perceptions on IPE. The taskforce developed survey underwent a Delphi expert review process (n=10) for content clarity, appropriateness, and question sequencing.⁶ The final survey reached 80% agreement for each question and resulted in 43 Likert-scaled questions and 6 open ended questions. The survey was then distributed to the School's health science faculty requesting their voluntary and anonymous participation. Upon reviewing the survey data four key themes emerged:

- faculty perceived that IPE learning experiences can provide an opportunity for students to develop their skill sets needed to engage in interprofessional evidenced based practice,
- 2) faculty pereceived that IPE learning can encompass both exposure and immersion experiences which support the underlying IPE tenets,
- 3) faculty did not support that all IPE experiences must have a competency assessment component, and
- 4) faculty did perceive that continual program assessment is needed to ensure that IPE learning experiences meet the goals and tenets of the IPE framework.

While faculty perceptions identified in this survey supported, in general, the underlying tenets associated with IPE as noted in the literature, faculty suggested that limited awareness of what IPE is by the faculty and lack of institutional support may influence the success of any IPE program. The information gleamed from this survey provided insight into the perspectives of a major player in the success of any IPE endeavor, the faculty. The authors suggest that when preparing to develop and infuse IPE experiences into existing curriculums obtaining faculty awareness, perceptions and feedback aides in creating a strong infrastructure which is fundamental to the success of developed experiences.^{1–5}

With an understanding of the SHMS faculty perceptions, the taskforce sponsored a faculty retreat exploring evidence based IPE practices. This retreat allowed faculty from across the school to engage in exploration of and discussion of teaching and learning strategies noted in the literature specific to IPE. Additionally, it enabled the faculty to come together as a whole and reach a common understanding of what IPE is and is not and explore possible options for infusing IPE into the School's existing health professions curriculums. Following this retreat faculty were asked again to complete the taskforce developed IPE perception survey. The post-retreat data supported that the perceptions of the faculty were broadened based upon the retreat experience and now consistent with IPE tenets found in the literature. Most importantly, faculty responses confirmed their willingness to address perceived barriers that might inhibit the success of an IPE infusion plan. To further support a developing foundation for the faculty, the taskforce sponsored a full-day workshop on "Exploring Possibilities in IPE" with experts in health professions education from across the northeast. This workshop exposed faculty to several different IPE infusion models utilized in health care curriculums. Faculty and the experts on IPE openly engaged in dialogue about the possibilities for infusing IPE within SHMS.

With the entire faculty now possessing a clear and consistent understanding and appreciation of IPE and IPP the taskforce proceeded in developing a strategic IPE Infusion plan. The IPE experiences identified in the strategic plan were designed to support and compliment the School's current discipline specific curriculums and clinical experiences within the "structured immersion approach." The taskforce infused these IPE experiences at major transitional points within each health science programs curricular map, creating sustainable "Core Signature IPE Experiences" (Table 1). As outlined in our strategic plan the Core Competencies of SHU-SHMS IPE experiences support the following: 1) Patient-centered care, 2) Evidenced-based practice, 3) Critical thinking, and 4) Transformative learning experiences using apprenticeships and mentorship experiences and interprofessional teaming opportunities. As part of our

Student Cohort	Core IPE Experience	Expectation
Pre-professional Health Science Students cohort	Video Case Presentation	Expose pre-professional students to the various healthcare professionals that potentially might collaborate on a patient's plan of care.Highlight the importance of communication and observation skills needed to engage in an IPP model of care.Raise awareness regarding IPP and IPE for those health science students completing their undergraduate degree requirements at the University but who are not in the professional health science programs observation skills needed to engage in an IPP mode.
All Health Science Students cohorts	"Interprofessional Perspectives Speaker Series" (IPSS)	Foster an appreciation for the practice of patient centered evidenced based care via a presentation that shares thought provoking, informative and inspiring information addressing a current topic of special interest in today's health care. Foster a sense of community and servant leadership.
New Health Science Students cohort	"New Student IPE Orientation"	Create a foundational awareness of our School's perspective on IPE. Create an awareness of the impact IPE has on IPP.
Year one didactic level Health Science Students cohort	"Town Hall Discussion" (THD)	Explore collectively across professional backgrounds today's health care environment and potential impacts on patient-centered care.Foster insightful communication across the professional program's faculty and students.Promote collaborative exploration of the impact of insurance barriers on the patient-centered care plans.Explore the clinician's role as the patients advocate across professions.
Pre-clinical Health Science Students cohort (prior to their fulltime clinical experiences)	"Interprofessional Education Symposium" (IES)	 Promote and apply critical thinking skills across IP student groups for the evaluation of and development of an evidenced based patient plan of care. Promote and express insightful dialogue amongst and across IP student groups, faculty and master clinicians. Promote an awareness and appreciation of the existence of interdependence that exists amongst health care professionals when working under a patient centered care model. Promote an awareness of the necessity for life-long learning for practicing clinicians in the health care arena.

TABLE 1. Core Signature IPE Experiences presented in sequential curricular order throughout the health science programs curriculum and expected global outcomes.

SHMS IPE strategic plan faculty are also encouraged to further capitalize upon the Core IPE Experiences by designing course specific experiences within their unique professional programs.

Core Signature IPE Experiences

The first Core experience, "Interprofessional Education Symposium (IES)," was held for all pre-clinical health science students (prior to their fulltime clinical experience). The IES experience used a video case that was developed and unfolded by a master clinician from one of our School's clinical partners. The clinical partner collaborated with the taskforce providing this IPE experience as a means to highlight the importance of IPP for the pre-clinical students. Interprofessional student groups were randomly assigned to address plan of care questions following the video presentation using a problem-based approach with SHMS faculty acting as tutors. After the student groups discussed the plan of care questions, a panel of health care experts from across disciplines shared their responses to the same questions. The students then discussed how their responses matched those of the experts. If the responses were not consistent, students then reflected upon the possible reasons for these inconsistencies. As part of this experience students were asked to complete a survey which explored their perceptions of IPE and IPP and assessed the effectiveness of the experience in expanding their awareness of IPE. In general, the students found the event to be engaging, motivating, and informative and requested additional opportunities to learn from and with other health care professionals.

The second Core Signature IPE experience focused on creating a foundational awareness of our School's perspective on IPE for new health science students during their orientation. This perspective was shared via a faculty led brief introductory power point presentation, followed by the showing of a commercially produced client video which focused on the client and family members' perspective surrounding the client's impairments and their impact on functional abilities and participation within the community. Using this commercially produced video by Reelabilities[™] faculty were able to provide incoming health science students with a general awareness of the various healthcare professionals that may collaborate to address the unique needs of an individual. The taskforce created this experience as a means to set the tone for IPP and IPE as an underlying framework for all professional curriculums within the School.

The third Core Signature IPE experience, "Interprofessional Perspectives Speaker Series" (IPSS), was designed as an annual event for the School's student body, faculty, SHU community at large, clinical community partners and our neighbors in the community. This speaker series was designed to motivate and assist students in seeing themselves as part of a global community addressing today's health care issues. While the speaker changes annually, the intent is that each speaker will share a thought provoking, informative and inspiring presentation addressing a current topic of special interest in todays' health care. For example, this year's Interprofessional Perspectives Speaker was Eric LeGrand, Rutgers University student athlete who suffered a spinal cord injury during a University football game. Eric has gained local and national recognition related to spinal cord injury and the recovery process through his work with the Christopher and Dana Reeves Foundation. During the speaker series, Eric and his rehabilitation health care team from Kessler Institute for Rehabilitation in West Orange, NJ, spoke on the importance of the health care team in caring for and motivating the patient and supporting the family during the rehabilitation process. Following the speaker series several of the School's faculty further capitalized upon this core experience by requiring students to write a reflection paper which focused on this event within their coursework. The integration of this IPE experience by faculty into their course content class identifies their commitment to the Schools' IPE strategic plan. In general, when students and faculty were asked via a survey format their perceptions by the following the speaker series, they noted that the speaker series was engaging, motivating, and informative as to the importance of IPP.

The fourth experience the taskforce developed was a "Town Hall Discussion" (THD) for year one didactic level health science students. During the THD, health care professionals from the community lead a panel discussion on "today's health care environment and potential impacts on patient-centered care." Using a small group discussion format to address paper based patient cases, students and faculty collaboratively explored the impact of insurance and its barriers on the patient care plans. These cases further helped students to explore and define clinician's role as the patients advocate.

Based upon the positive feedback from the four Core Signature IPE experiences the taskforce sought to engage pre-professional health science students at the University by inviting them to a screening of a commercially developed video entitled "Autism in Love" (Reelabilities[™]) which has now become our fifth core IPE experience. The taskforce chose this video as a means to expose pre-professional students to the various healthcare professionals that potentially might collaborate on a patient's plan of care. Additionally, this experience highlighted the importance of communication and observation skills needed to engage in an IPP model of care. The taskforce believes that this experience was unique as it raised awareness regarding IPP and IPE for those health science students completing their undergraduate degree requirements at the University as pre-professional health science students. Interacting with pre-professional students early in their academic careers provided a forum to strengthen and enhance their understanding of IPP and IPE while helping them see the link between undergraduate and graduate professional coursework.

In summary, the taskforce's approach to infusing IPE into our School is unique as it supports both key players in higher education, faculty and students. By providing faculty and students a consistent knowledge base regarding what IPE "is" and "is not" enabled the taskforce to infuse the Core Signature IPE experiences into existing curriculums with ease. The development of a common core of IPE Experiences offered at key points within a student's professional program is viewed as the foundation of a structured immersion approach. The Core Signature IPE offers not only consistent and formative experiences but also sustainable experiences as they can be offered for each professional cohort yearly in addition to their program specific content.

Conclusion

Academicians educating diverse health care professional must move from professional education in "silos" and recognize that IPE can provide an opportunity for awareness, appreciation, and development of professional identify and the interdependence that exists among today's health care professionals.³ Based upon the SHMS IPE Taskforces experiences we strongly support the development of an IPE Infusion plan that engages and prepares both students and faculty, as they are the stake holders whom will either enable the IPE experiences to flourish or fall to the waste side. Creating "Core Signature IPE" experiences provides both foundational experiences across professional programs and a mechanism for faculty to imbed the tenets of IPE within their individual coursework. The model presented here offers one approach for health science academic programs to infuse "sustainable" core IPE experiences that complement existing health science curriculums.

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