

Meeting the Grand Challenges in a Rural Community: An IPE Case Study

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Abstract: *Three of the Grand Challenges identified by the social work profession are specifically related to health care: healthy youth development, closing the health care gap, and advancing long and productive lives. Idaho State University (ISU) initiated a collaborative interprofessional health education project (IET) over 30 years ago. This collaborative includes ten health care disciplines across five colleges and provides in-depth assessment and referral to three families annually. This study describes the development of a collaborative, high impact, teaching exemplar, and examines the knowledge, perceptions, and competency of participating students using the framework of the IPEC competencies and the CSWE practice competencies for social work education. Results are derived from a pre-post survey administered during the previous two years. The project includes two groups of students: those that engaged in a hands-on experience with a client and those that only observed clients. The Observation-Only group completed the SPICE-R2 and the IEPS. Students that had direct interaction with clients completed the IEPS (pre-post engagement with clients) as well as the ICCAS. Attitudes, perceptions, and perceived competency improved amongst students participating in the IET course from pre-assessment to post-assessment with moderate to large effects being observed.*

Keywords: *Grand challenges, interprofessional education, health professionals*

Since the days of Jane Addams and Mary Richmond, social work services have been provided within an interdisciplinary service delivery context; although not always interprofessional. In rural communities interprofessional practice is a necessity because services are offered on a limited basis and providers often have dual roles. Rural social workers routinely collaborate with health care providers, law enforcement, mental health specialists, educators, policy makers, clergy, and community leaders (Scales & Streeter, 2004). Interprofessional collaborative practice is defined as: the professional practice of two or more health/social care workers from different professional backgrounds working together with patients, their families, care providers and the community to deliver the highest quality care (Center for the Advancement of Interprofessional Education [CAIPE], 2019; Gilbert et al., 2010). To facilitate interprofessional collaborative practice, the service providers must be well prepared through their education to deliver high quality, interprofessional care (Gilbert et al., 2010).

In 2010, the World Health Organization (WHO) recognized the necessity for effective interprofessional practice to meet the world's health care needs. A framework for interprofessional practice was created, which defined interprofessional education as

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education that “occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (Gilbert et al., 2010, p. 7). In 2011 Interprofessional Education Collaborative (IPEC) published a set of core values and practice competencies for interprofessional practice; these standards were updated in 2016 (IPEC, 2016). The IPEC values and competencies are consistent with social work values and education standards (Council on Social Work Education [CSWE], 2015; National Association of Social Workers [NASW], 2018). The IPEC values focus on patient and family-centered care, and a practice orientation toward community and populations (IPEC, 2016). There are four core interprofessional practice competencies: a) work with individuals of other professions to maintain a climate of mutual respect and shared values; b) use the knowledge of one’s own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations; c) communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease; and d) apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable (IPEC, 2016, p. 10).

The Need for Interprofessional Practice

In 2010 the WHO recognized a shortage of well qualified health care workers worldwide and identified interprofessional practice education as a mechanism to mitigate this crisis (Gilbert et al., 2010). In 2017 social work policy makers, practitioners, educators and leaders identified 12 Grand Challenges for social work practice (Nurius et al., 2017). Three of these Grand Challenges are especially important to rural, interprofessional practice: a) Ensuring healthy development for all youth; b) Closing the health gap; and c) Advancing long and productive lives (Nurius et al., 2017). Routine and specialized health care services, like pediatrics and associated children’s specialists, are limited in rural communities (Moore & Sapien, 2012). Rural community members also lack access to follow-up health treatment required for successful recovery from injury or illness and the wait times for emergency services are much longer than for urban communities (Buzza et al., 2011). People living in rural communities are at greater risk for poor health outcomes due to disparities in access to health care services (Goins et al., 2010; Lutfiyya et al., 2009). Rural hospitals often do not meet national accreditation standards (Lutfiyya et al., 2009). Facilitating the development of competent interprofessional health/social care providers can effectively address these challenges and meet the needs of rural communities.

Practice Competency

The evidence for the need for competent social and health care providers in rural communities is clear. Social work education, like most health care professional education programs, is facilitated by a set of nine practice competencies that are monitored through the CSWE (2015) accreditation policy standards. These competency categories include: 1) Professional identity, 2) Diversity, 3) Social Justice and Human Rights, 4) Research, 5)

Policy, 6) Client Engagement, 7) Client Assessment, 8) Intervention, and 9) Evaluation (CSWE, 2015). While all areas of practice competency are important, a specific few are critical for competent interprofessional practice, including those related to professional identity, client engagement and assessment, intervention, and evaluation. In this context, social workers must understand their role and responsibility in connection with other provider partners and value this partnership (IPEC, 2016). Social workers must develop effective interprofessional skills to competently deliver services and meet the client/patient's needs (CSWE, 2015). Competent social workers reflect on their interprofessional practice, acknowledge the strengths and talents of partners, and consider opportunities in order to better meet community needs (CSWE, 2015; IPEC, 2016).

Effective rural social workers have a broad base of practice knowledge and skill, and they respect the expertise of their collaborators in order to engage with clients, and assess their needs (Scales & Streeter, 2004). Interprofessional practice increases client access to appropriate interventions and treatments and encourages interprofessional dialogue on best practices, outcome evaluation and application of evidence-based practice (Fitzgerald et al., 2018). This approach stretches the available resources to best meet the health and welfare needs of rural communities (IPEC, 2016).

Needs in Southeast Idaho

In general, Idaho is a rural state with 35 of Idaho's 44 counties considered to be rural by the Idaho Department of Commerce (Salant & Porter, 2005). Not surprisingly, Idaho is ranked 46th out of the 50 states for access to a primary care physician (Idaho Department of Health and Welfare & Division of Public Health [IDHW & DPH], 2019). Idaho is experiencing a shortage of caregivers and health care providers to meet the needs of a growing aging population (Cooper, 2018). Additionally, there is a serious lack of dental care for low-income families in Idaho (Cooper, 2018). In 2018 access to dental health was the leading health concern in Idaho statewide (IDHW & DPH, 2019). These needs are reflective of the "Grand Challenges" facing rural communities (Nurius et al., 2017).

Rural Idahoans are experiencing a number of "Grand Challenges" (Nurius et al., 2017). Compared to the national average, Idaho has a low per capita income, with nearly half of the university community considered low income (Census Bureau, 2017; Cooper, 2018; Get Healthy Idaho, 2019). Young families with children and older adults experienced decreasing wealth between 2010 and 2016 (Cooper, 2018). Additionally, the cost of health care in Idaho is on the rise (Cooper, 2018). Decreasing access to resources makes collaborative, interprofessional practice a necessity.

University services and professional education programs can help to fill the gap in rural, under-served communities. Idaho State University (ISU) is a key player in meeting the need for increased access to primary care providers (IDHW & DPH, 2019). The ISU Interdisciplinary Evaluation Team (IET) has provided access to specialized assessment for many families and children in rural Southeast Idaho for over 30 years. This collaborative is an interprofessional practice education exemplar. Details about IET are discussed below.

Interprofessional Training at Idaho State University

The ISU Interdisciplinary Evaluation Team (IET) offers an example of best practices in professional collaboration. This project was originally conceived in 1987 as the Multidisciplinary Evaluation Team (MET) and was comprised of faculty from Audiology, Nursing, Psychology, Social Work, Special Education, and Speech Pathology. Initially eight graduate students worked collaboratively with the faculty to evaluate the needs of children referred for assessment. A one-credit course was developed in 1992 with 20 students enrolled. This course functioned as a clinical team meeting with each discipline sharing their assessment findings. In the late 1990's the project was renamed the Interdisciplinary Evaluation Team (IET) and began to add additional health care disciplines. The IET is currently comprised of ten healthcare disciplines housed in five different colleges. The disciplines include: Audiology, Dental Hygiene, Dietetics, Nursing, Occupational Therapy, Physical Therapy, Psychology, Social Work, Special Education, and Speech and Language Pathology. In 2016 the project modified some of the assessment procedures to be more consistent with IPEC standards. Annually, three families volunteer to be served by the team. Families often refer themselves to the IET or are on a university waiting list for other ISU clinic services.

The Interdisciplinary Evaluation Team facilitates a one-credit (50-minute) weekly course each spring semester. Broad course objectives are centered around introducing students to the various models of team assessment processes, identifying assessment goals and procedures across disciplines, recognizing the overlap between disciplines, integrating information across disciplines, and providing interprofessional training opportunities for advanced students. Course assignments include weekly in-class assessment activities, discipline assigned assessments and online reading/viewing assignments. For example, social work students use the Person-in-Environment (PIE) assessment and the students in the class learn about the efficacy of this tool (Karls & Wandrei, 1998). In-class activities involve the challenging of myths and misconceptions across disciplines, more fully defining the roles of various disciplines and the language they use, and learning how to integrate information across disciplines.

The course uses a "flipped classroom" approach where students access course content on Moodle (learning management system) and then apply it during the class session, which is facilitated by one or two of the project faculty (Cheng et al., 2019). There are approximately 60-70 students enrolled in the course annually from all ten disciplines. Both undergraduate and graduate students can enroll in the class and may choose to observe the interprofessional team, or work directly with the client family, dependent on the expectations of the student's educational discipline. All students enrolled in the IET course are required to view an online lecture as part of the "flipped learning" curriculum for each discipline throughout the semester. Once the online lecture has been viewed, students have two hours to take an online quiz. The online learning portion must be completed before the discipline's in-class session.

Students are asked to meet specific objectives during the IET course. These objectives include: gaining knowledge about entry level information from each discipline, identifying assessment goals and procedures associated with each discipline, having the ability to

describe the various disciplines associated with the course, and integrating information learned into their own professional discipline. Student competency is evaluated by participation in in-class interprofessional activities, completion of online assignments and knowledge on exams.

In-class sessions are scheduled once a week for 50 minutes and include interprofessional interactions and activities to engage students and faculty. Students complete a final exam that is worth 20% of the student's total grade. Every student enrolled in the IET course is required to observe at least one case from beginning (intake and social history appointment) to end (case review and feedback session) and many of the students are required to observe the evaluation process for all three cases. Students also observe all client assessments from each discipline, for one identified client. These observations include attending the client evaluation, and meeting either through the observation room or via video conferencing. The only students in the room with the family are those individuals that completed the evaluations. This course is required for both graduate and undergraduate students in the Speech and Language Pathology program.

The role of the faculty facilitators is to model effective interprofessional practice and teach students how to effectively collaborate for the benefit of the client. Disciplines generally work in teams to complete the client assessments. Social work teams with psychology for the bio-psycho-social and spiritual elements of the assessment. Dental hygiene and dietetics team to examine nutritional wellbeing and oral health. Occupational therapy and speech and language pathology team to examine communication and oral-motor challenges. Nursing and physical therapy team up to examine medical and physical challenges. Special education teams with psychology in order to complete psycho-educational assessments. Due to the technology required for the audiology assessment, this discipline provides an independent hearing assessment. These pairings allow students to observe clinicians (via video feed) working together to meet the client's needs. Through the IET collaborative process assessments have resulted in identifying the source of a problem that would not otherwise have been detected (e.g., one child had a serious problem with a tooth that was eliciting a problematic behavioral response and an adolescent was diagnosed with early symptoms of schizophrenia). Without the team approach these problems had been overlooked in earlier evaluations.

The administrative structure of the IET is informal (i.e., based on consensus decision-making, voluntary participation and subject to professional interest). Leadership has been relatively stable since 1987. The third and current leader is a faculty member in Communication Sciences and Disorders who assumed the position in 2018. Each participating department contributes to the funding of the IET through faculty teaching assignments, and the cost of assessment materials. Families are not charged for services and student tuition and public financing cover the costs associated with the IET course. The IET has produced annual reports since 2011 and these are submitted to the Deans of the participating colleges. These reports detail the services provided, the costs, and the activities of the participating faculty and students. The annual reports allow the IET to reflect on strengths, progress, challenges, needs, and improvements.

The previous IET leader identified three primary challenges for the IET: 1) coordinating all 10 disciplines in order to minimize redundancies and inefficiencies; 2) strengthening professional trust in order to decrease the need for “turf” protection; and 3) attending to patient outcomes and follow-up treatment (J. Holst, personal communication, September 19, 2019). Future program evaluation will focus on defining the diagnostic process and the impact on professional development for participating students. These goals and challenges will continue to be explored by the team and addressed as time and resources become available.

This paper describes a long-standing model for interprofessional education in a rural region of the United States and presents the results of an evaluation of student attitudes related to interprofessional practice. Data were collected for spring 2018 and spring 2019 and answers the question: Is the IET course effectively improving student interprofessional practice competency?

Method

Research Design

During the spring semester students enrolled in the IET courses are invited to participate in a program evaluation of the IET process using an anonymous online survey. The IET course is offered annually, during the spring semester at a public university in southern Idaho. The course is open to both undergraduate and graduate students. Survey participants complete two or three standardized assessments and answer an open-ended question about the impact of the course on their values and attitudes related to interprofessional practice. Participation in the evaluation is voluntary and the procedures have been approved by the university institutional review board. Study participants are divided into two groups: 1) Observation Only and 2) Direct Interaction. Students in the Observation only group viewed the client assessment process and did not interact with client families. Students in the Direct Interaction group conducted the assessments with families and interacted with interprofessional peers in the assessment process.

Survey Participants

Of the 109 students that completed the survey, 42 (38.5%) fully completed both the pre- and post-surveys and were included in the current analyses. Students in the Direct Interaction group met the following criteria: 1) The students were assessed by faculty to be professionally ready to perform the IET evaluations and were directed to actively participate in the client assessment; 2) Students were involved in conducting the evaluations, presenting oral summaries at the final case review, participating in the parent interpretations, writing collaborative interprofessional reports, and assisting the case manager in follow-up activities. Of the 42 participants, 18 were from the Observation Only group and 24 were from the Direct Interaction group. See Table 1 for further participant demographics.

Description of the Clients Served by IET

Families, foster families, Idaho State University professors, or other professionals in the Southeast Idaho region can make referrals or can inquire about possible participation for clients. The largest number of referrals are made due to a youth having challenges that have either not been identified or clarified, or that were identified, and the current course of treatment is not resulting in a significant improvement for the child. Clients who have been served by the IET are children or adolescents who have demonstrated problems with hearing, speech, generalized development, attention, sleeping, eating, unusual behaviors, scholastic retention, self-stimulation, gaps in cognition, and/or issues related to attachment.

Table 1. *Participant Demographics (n=42)*

	n (%)		
	Observers (n=18)	Direct Interaction (n=24)	All (n=42)
Age (in years)			
18-24	8 (44.4%)	6 (25.0%)	14 (33.3%)
25-34	6 (33.3%)	16 (66.7%)	22 (52.4%)
35-44	3 (16.7%)	2 (8.3%)	5 (11.9%)
45-54	1 (5.6%)		1 (2.4%)
Gender			
Female	18 (100.0%)	20 (83.3%)	38 (90.5%)
Male		4 (16.7%)	4 (9.5%)
Race/Ethnicity			
Caucasian	17 (94.4%)	21 (87.5%)	38 (90.5%)
Hispanic/Latinx	1 (5.6%)	2 (8.3%)	3 (7.1%)
Native/American Indian		1 (4.2%)	1 (2.4%)
Completed Education			
Some College	6 (33.3%)	6 (25.0%)	12 (28.6%)
Associate's Degree	2 (11.1%)	3 (12.5%)	5 (11.9%)
Bachelor's Degree	8 (44.4%)	7 (29.2%)	15 (35.7%)
Master's Degree	2 (11.1%)	8 (33.3%)	10 (23.8%)
Student Status			
Undergraduate	13 (72.2%)	11 (45.8%)	24 (57.1%)
Graduate	5 (27.8%)	13 (54.2%)	18 (42.9%)
Previous IPE Experience			
Yes	2 (11.1%)	17 (70.8%)	19 (45.2%)
No	16 (88.9%)	7 (29.2%)	23 (54.8%)

Identified clients are children and adolescents that range from age three years to 18 years. A parent and/or significant caregiver brings the youth to Idaho State University for each assessment during a two-week time period in the spring semester and is often actively involved in the assessment process. Assessments are concentrated into a two-week period

in order to ensure a timely assessment for families. Students conduct all assessments under the supervision of the IET faculty. A social history of the family is conducted first by the Social Work and Psychology team in order to provide the evaluating team a picture of the child in their familial environment. Most assessments outside of the social history are conducted with the child alone, unless there is an extenuating circumstance to have a caregiver present. Exceptions to this might include when the child is pre-verbal or the assessor/assessment indicates caregiver input. Upon completion of assessments, the family of the identified client meet with the IET to review assessment results and/or diagnoses as well as recommendations for treatment.

Measures of Interprofessional Practice

Participants in the Observation Only group completed assessments related to their attitudes and perceptions, specifically the Student Perceptions of Interprofessional Clinical Education-Revised (SPICE-R2; Zorek et al., 2016) and the Interdisciplinary Education Perception Scale (IEPS; McFadyen et al., 2007). This tool is limited to measuring attitudes and values since these students did not deliver any direct services to the clients. The SPICE assessment tool was originally validated in 2013 with medical and pharmacy students, and the 10-item, five-point, Likert-type measure was found to accurately measure student perceptions of teamwork, roles/responsibilities of collaborative practice, and patient outcomes resulting from collaborative practice (Fike et al., 2013). The SPICE-R2 was created to measure the same factors for student perceptions and attitudes of students participating in a broader interprofessional team (Zorek et al., 2016). This measure includes subscales of interprofessional teamwork and team-based practice, roles/responsibilities for collaborative practice, and patient outcomes from collaborative practice (Zorek et al., 2016). This measure has been used in large assessments of student change in perceptions in the interprofessional classroom settings (Lockeman et al., 2017) and has been well validated by a multi-site study (Zorek et al., 2017). The IEPS is a 12-item, six-point, Likert-type assessment that measures perceptions and attitudes about competency and autonomy, the need for cooperation, and the actual application of cooperation (McFadyen et al., 2007). This measure was originally developed in 1990 by Luecht and colleagues, and the later version was shown to have greater validity and reliability than the original measure (McFadyen et al., 2007). Both groups completed the IEPS.

Participants in the Direct Interaction group also completed the Interprofessional Collaborative Competency Attainment Survey (ICCAS) to assess their perceived competency (Archibald et al., 2014). The ICCAS is a 20-item, seven-point, Likert-type, retrospective pre-post assessment of interprofessional competency developed for practitioners who have engaged in interprofessional education interventions (Archibald et al., 2014). This measure of perceived interprofessional practice competency has been found to be a reliable measure of self-assessment of collaborative professional practice (Archibald et al., 2014).

Analysis Plan

Paired-samples t-tests were completed to assess pre- and post-improvement in attitudes, perceptions, and competency amongst the two groups and their respective

subscales. This analysis of student outcomes examined the overall impact from pre-test (the beginning of the course) to post-test (end of the course) that the course had on improving attitudes, perceptions, and perceived competency. Additional post-hoc analyses were completed to assess change within each of the subscales of the administered measures and a Bonferroni correction was applied to address family wise error. A repeated-measures ANOVA was also planned with each assessment in order to assess the potential role of other variables such as age, gender, ethnicity, previous IPE experience, and student status (graduate or undergraduate).

Results

Data was collected on 42 student participants who completed both the pre and post surveys. Just under half ($n=18$) of the students observed the interprofessional practice process and 24 students provided direct assessment services to clients. All of the observers were female students and 20 of the direct interaction students were female. Four of the participants were students of color. Just over half ($n=13$) of the direct interaction participants were graduate students and nearly one third ($n=5$) of the observers were graduate students. Most ($n=15$) of the study participants were from the speech and language pathology program. Other participants represented include: psychology ($n=8$), dental hygiene ($n=8$), audiology ($n=3$), dietetics ($n=3$), and physical therapy ($n=1$). Over half ($n=24$) of the study participants had prior experience in providing direct care to clients through internships or employment. Lack of variance in the sample precluded the ability to assess age, gender, and ethnicity as potential factors in the relationship between the course and variables of interest as well as previous IPE experience in the Observation Only Group (i.e., only 11% had previous IPE experience).

Perceptions and Attitudes

Table 2 details the results of the IEPS and the SPICE-R2 assessments of student attitudes. The total IEPS score indicated that positive perceptions of interprofessional practice improved significantly from pre- to post-assessment among both observers [$t(17) = -2.584, p=0.010$] and direct interaction [$t(23) = -2.549, p=0.009$] participants, with each showing a moderate effect ($d= -0.620$ and -0.604 , respectively). Observers ($n=18$) completed the SPICE-R2 at the beginning and end of the course to measure attitudes relevant to interprofessional practice. The SPICE-R2 total score indicated that these attitudes improved significantly [$t(17) = -3.081, p=0.004$] by the end of the course with a moderate-to-large effect ($d= -0.729$). Roles/Responsibilities was the only subscale of the SPICE-R2 that indicated significant change (at the $p=.017$ level after Bonferroni correction). The Roles/Responsibility subscale improved significantly [$t(17) = -2.75, p=0.007$] with a moderate effect ($d= -0.653$). Additionally, there was no significant difference in observer perceptions [$F(1, 15) = 0.249, p=0.313$] or attitude [$F(1, 16) = 0.013, p=0.455$] change between graduate ($n=5$) and undergraduate ($n=13$) students in the Observation Only group, suggesting the course was equally effective in improving collaborative competencies across education levels.

There was a significant interaction between student level (graduate= 13 and undergraduate= 11) and change in perception on the IEPS (Wilks' Lambda = .80 $F(1, 22)$

= 5.59, $p=0.014$, $partial \eta^2 = .203$) for those in the Direct Interaction group, suggesting that undergraduate perceptions (mean change of 0.52) may have changed more drastically than graduate student perceptions (mean change of 0.06). There was no significant difference [$F(1,22) = 0.037$, $p=0.424$] in perception change based on previous IPE activities ($n=17$) versus those participants with no previous IPE experience ($n=7$). This suggests that the course was equally effective in improving perceptions across previous IPE experience levels.

Table 2. Perception/Attitude Assessments

Measure	Observers (n=18)			Direct Interaction (n=24)		
	M (SD)		t (d)	M (SD)		t (d)
	Pre-test	Post-test		Pre-test	Post-test	
IEPS	4.71 (0.41)	5.05 (0.54)	-2.58* (-0.620)	4.99 (0.56)	5.26 (0.44)	-2.55* (-0.531)
SPICE-R2	3.91 (0.46)	4.25 (0.51)	-3.08 (-0.729)			

*one-tailed, $p<.01$; d represents the effect size

Competency

Collaborative competencies were measured by the ICCAS total score for study participants who had direct interaction with clients. Competency for Direct Interaction students improved significantly through the course from pre-test ($M=6.04$, $SD=1.33$) to post-test ($M=6.67$, $SD=0.28$); $t(23) = -2.37$, $p=0.014$, $d=-0.604$. There was no significant difference [$F(1,22) = 0.344$, $p=0.282$] in change between graduate ($n=13$) and undergraduate ($n=11$) students, suggesting the course was equally effective in improving collaborative competencies across education levels. The Roles and Responsibility subscale [$t(23) = -2.669$, $p=.007$] of the ICCAS was the only subscale that showed a significant change (at the $p<.01$ level after Bonferroni correction), although the Communication subscale of ICCAS approached significance [$t(23) = -2.413$, $p=0.012$]. These results are consistent with changes in attitude and suggest that students improved their ability to carry out collaborative roles and responsibilities and to effectively communicate with their interprofessional colleagues. There was not enough variance to make comparisons based on age, gender, or ethnicity. There was no significant difference [$F(1,22) = 0.749$, $p=0.198$] in change of perceived competency based on previous IPE activities ($n=17$) versus those students with no previous IPE experience ($n=7$), suggesting the course was equally effective in improving collaborative competencies across previous IPE experience levels.

Student Self-Assessment of Collaborative Competency

Students in the observer group were asked: "How has this interprofessional experience changed your attitude and/or perceptions towards other professions?" Student observers who perceived that their ability to collaborate had improved stated the following:

The only profession I didn't know about as part of the team was dental hygiene. That was good to learn, since in our class we just say make referrals to the dentist. I already had a very high positive attitude towards inter-professional collaboration before this class so I would not say that it has changed much. I also already knew a bit about PT, OT, Psych, and SPED since I was a para in an

extended resource room and saw a very system of interprofessional collaboration and assisted in the testing of a student who used an alternative augmentative communication device so my background already gave me a lot of respect and insight into what some of the other professions actually do.

I have learned much more about specific responsibilities and ways that healthcare professions can sometimes overlap but still cooperate on a team.

It has made me more aware of the scope of practice for the related professions, which may make me more likely to collaborate or refer clients to them.

Interestingly, students who did not perceive that their ability to collaborate had improved, identified areas where their knowledge had improved:

I have just learned more about the other professions.

I have a better understanding of what the related disciplines do and how the work can be coordinated. I came into the class thinking that interprofessional collaboration was important, and that hasn't changed. I do have a much better idea of the mechanics of working through a case with a team.

Students in the direct interaction group were asked: "How has this interprofessional experience changed your attitude and/or perceptions towards other professions?" Students with direct interaction who perceived that their ability to collaborate had improved stated the following:

This experience has increased my respect for other professions. I was largely unaware of the areas of overlap between my profession and others; since being exposed to the assessment and treatment that other disciplines offer, I have come to value the contributions that other team members may offer.

This course allowed me to learn more about the other professions and when would be appropriate to refer to them. I thought this course was informative to give an in-depth look at the contributions and overlap other fields can provide and how they can even help inform an assessment in my profession.

I highly respect other professions and what they have to offer patients within their care.

I was surprised that I felt like I actually had something to contribute and that others were interested in our assessment findings.

Discussion

The results of this study indicate that the IET course helps students to develop pro-interprofessional attitudes regarding engaging with other professionals for the benefit of clients. Most study participants indicated that the course positively changed their attitude about interprofessional practice and students who had experience with interprofessional practice affirmed their positive regard for this approach to practice. Students clearly articulated how this experience improved their practice competency, while at the same time a valuable service is provided to the clients. These students have learned to be sensitive to

the specific needs of their clients, as well as the benefit of the particular expertise that collaborative, interprofessional practice brings to bear on complex client needs. The educational strategies employed in this course are consistent with best practices outlined by the WHO (Gilbert et al., 2010). The students in the IET class are prepared to competently engage in collaborative practice upon joining the health and social care workforce and can further the aims of the WHO framework for action on interprofessional education and collaborative practice (Gilbert et al., 2010).

According to Pockett (2010), “teamwork has been given a renewed emphasis in practice” (p. 208). Specifically, interprofessional practice, teamwork, and communication skills are necessities for social workers in working with individuals and families in rural communities (Pockett, 2010). Providers often have a duality in roles in rural communities because of a lack of resources. Appreciating partnering disciplines is an integral part of working with and accepting the unique challenges that rural practitioners face (Smalley et al., 2010).

The pro-interprofessional attitude exhibited by the students in the IET class is particularly important for effective practice in rural communities where access to physical and behavioral health care services are limited (Buzza et al., 2011). Students engaged in the IET course gained increased awareness of the limited resources available to families in rural communities and how interprofessional education can extend these resources. The IET course provides an opportunity to ensure the healthy development of youth and to close the health gap for local families who have run out of options for their children’s health and social care needs (Nurius et al., 2017). This project is an exemplar of how interprofessional practice is situated to address the “Grand Challenges” of health care practice in a rural community (Gilbert et al., 2010; Nurius et al., 2017).

Implications for IEP Social Work Education

Social workers follow a generalist practice model and assume a wide range of roles within the profession as a whole (CSWE, 2015). These roles include: counselor, educator, broker, case manager, mobilizer, mediator, negotiator, facilitator, and advocate (Kirst-Ashman, 2013). As a generalist practitioner, it is imperative that the social work professional has a broad knowledge of interprofessional roles and how collaboration is key to client health and overall client outcomes (Fitzgerald et al., 2018). The IET course provides an opportunity for students from ten different physical and behavioral health disciplines to learn together in a safe and controlled environment, while at the same time providing a valuable and rare service to a family in need. This course effectively prepares students for practice in rural communities, where interprofessional practice is essential.

Opportunities for Enhancement/Expansion

The IET course at ISU has been a major asset for students who have completed the requirements, as evidenced by the outcome results of this study. However, there is room for enhancement and expansion. Students might benefit from a brief introductory module focused on the intent, values, and evidence regarding interprofessional practice. Such an

introduction would provide a foundational motivation of participating in the course beyond being a program requirement.

There are also specific opportunities for this course to enhance social work education. This course is offered as a one credit course at ISU to both undergraduate and graduate students. The newly developed ISU Master of Social Work (MSW) Program offers a course titled: Interdisciplinary Practice with Children and Families. If the IET course was paired with the MSW elective, MSW students would have greater opportunity to develop competent interprofessional practice skills in a rich and supportive educational environment. This opportunity is being offered by the MSW Program in spring, 2021. Additionally, MSW elective courses are open to graduate students in other disciplines, providing opportunities to create a truly interprofessional course in the MSW Program.

Limitations

This case example may be unique to this institution, thus making it difficult to replicate in other universities based in a rural location. This study has several limitations including the fact that the researchers were not able to compare these results to a comparison group of professional health care students who were not enrolled in the IET course. It is worth noting that the study sample is small, especially compared to the number of students enrolled in these ten disciplines. Students participated in this study on a voluntary basis. These limitations offer opportunities for continued research and evaluation of IET, as well as room for growth in the course throughout the participating disciplines.

Next Steps

There are two distinct areas for continued research and evaluation related to the IET. The IET leadership has noted that collaborative assessment procedures could be further streamlined to reduce redundancy and improve efficiency for providers and clients. The IET faculty and students have an opportunity to analyze all of the elements of the assessment process and identify these redundancies to then clarify who will take the lead where there is overlap in procedures. It would be worth exploring the possibility of creating a course assignment that would take advantage of this opportunity. For the sake of the wellbeing of clients, the results of such an analysis might require collaborators to relinquish “turf” boundaries and develop genuine trust in their colleagues. Ambrose-Miller and Ashcroft (2016) suggest that successful interprofessional practitioners have a clear definition of professional roles, the specific scope of practice, and the organizational structure. Attention to these factors will minimize problematic power differentials (Ambrose-Miller & Ashcroft, 2016). Having the ability to collaborate and communicate as an interprofessional team is imperative in continuing a culture of collaborative consultation in educational settings (Ambrose-Miller & Ashcroft, 2016; Gilbert et al., 2010).

The second area for further research development is to follow-up with exploring client perceptions of the assessment process and the outcomes patients and their families experience. This line of research will facilitate a better understanding of the effectiveness of interprofessional education. A systematic procedure needs to be developed to effectively track families who participate in the IET and understand the impact of the assessment

process. This can be an expensive process and requires that professionals integrate this procedure from the beginning of the assessment process to ensure future access to clients. Since this course is offered annually, tracking family outcomes may be included as a course assignment in the class. The current IET coordinator has a strong interest in this area of research and is poised to facilitate these next steps. Documenting client outcomes is an important factor in identifying the strengths and areas for growth of the Interprofessional Evaluation Team collaborative at Idaho State University.

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