

COLLABORATIVE HEALTHCARE



INTERPROFESSIONAL PRACTICE, EDUCATION, AND EVALUATION

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FROM THE EDITORS

Welcome to the winter 2022 edition of our newsletter! As we begin a new year, we at JCIPE are both optimistic and exhausted. Like many of you, we feel the excitement of new beginnings, which for us will comprise the launch of several new programs and initiatives, all of which target issues of racial and social injustice and two that bridge the gap between education and practice. We feel disheartened by yet another surge of the COVID-19 pandemic and the continued drain it places on us individually and on our care teams, as well as the disparities in health care and outcomes it continues to highlight.

This edition's articles underscore the intersection between such injustices and interprofessional training and teamwork. They remind us of the heart of our work: addressing systemic issues – related to teamwork and to racial and social injustice – to improve health outcomes and community health. Our faculty champion, Dr. Louis Hunter, notes this: "I think that IPE, especially JCIPE's IPE programs, teach Jefferson students the importance of bringing professions together in teams to address the health needs of individuals and communities both local and global, especially vulnerable populations." Student champion Ashton Guidebeck echoes the sentiment: "health care uninformed by the studies of social determinants of health leaves us with inadequate explanations for understanding

health concerns, and consequently, inadequate remedies for combating them. IPE/CP has proven to be one effective way of addressing such oversights in the current healthcare system."

Ashton and two companion reflections, one by Health Mentor (community volunteer) Jon Moore and one by nursing student David Kaplan, touch on our Health Mentors Program (HMP) Design Sprint. The Design Sprint is a quintessential example of working collaboratively for a common goal, in this case improving our flagship HMP, which applies the Social-Ecological Model to enhance understanding of the social determinants of health. This two-hour design thinking exercise, led by interprofessional colleagues in Jefferson's Health Design Lab, resulted in stakeholders of all types reimagining the student team and Health Mentor partnership and how to help enhance this partnership during the course of the program. Just as Design Sprint participants did, we hear about the HMP experience from multiple perspectives and feel the powerful role our Health Mentors play as educators of the patient – and human – experience and how they help make us more aware of our biases.

An article by Drs. Jeannette Kates, Susan Toth-Cohen, and Richard Hass describing the effects of a 3-D interprofessional virtual Alzheimer's training further demonstrates

the interconnectedness of interprofessional teamwork and racial and social justice and the value of using interprofessional education as a mechanism to teach about systemic injustice. Working together during virtual simulations, learners gained confidence and knowledge in caring for dementia patients and in assisting their caregivers. They also appreciated their teammates and the varying contributions of their teammates to the care of their simulated Alzheimer's patient.

Dr. Angela Gerolamo reflects on interprofessional contributions in describing research conducted with colleague Dr. Kristin Rising around uncertainty during acute care. Their work supports the need for the development and delivery of integrated interventions addressing behavioral health and psychosocial needs, as well as physical needs during care transitions. It also adds credence to collaborative, interprofessional research to uncover and support new solutions to complex problems. The goal of the work, like that of our Center, is to improve health outcomes leveraging interprofessional expertise.

A final manuscript deals with another pressing issue in the field: assessment of interprofessional competencies. Dr. Richard Hass and Jasmine Lama look at ceiling

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effects and take on the difficult task of how to train learners to give discriminating and meaningful feedback. The question, with the promise of helping to build a more patient-centered, team-based workforce, seems even more urgent in light of the dramatic

effects of the COVID-19 pandemic and the social determinants of health and other racial and social justice issues threaded through this edition of the newsletter.

We know that our colleagues near and far

are grappling with many of the same issues and we look forward to engaging with and learning from you in these efforts. We hope that 2022 brings new adventures in your work and life and always more optimism and excitement than exhaustion!

JCIPE Updates

Health Mentors Program (HMP): The fall semester saw the return of in-person sessions for the Health Mentors Program. Cohort 14 (second-year) student teams were introduced to the foundations of advocacy in the context of the Social-Ecological Model (SEM). 137 student teams collaborated with their Health Mentor to identify an area of advocacy, then designed and presented their Advocacy Projects at their final IPE Small Group Session.

We welcomed two new professions (speech-language pathology and nutrition and dietetic practice) to cohort 15; in this cohort, first-year students were introduced to person-centered care and the foundations of effective interprofessional teamwork. The Module 1 semester concluded with 140 teams sharing and discussing teamwork skills at the IPE Small Group Session. More than 40 facilitators volunteered to lead sessions and over 250 Health Mentors (community member volunteers) met with their student teams, making HMP possible this past fall!

Student Hotspotting: Student Hotspotting successfully kicked off in September with a total of 150+ students and advisors hailing from Jefferson, Harvard University, Johns Hopkins University and Sienna College. We offered three new Essentials Workshops during the fall: Social Determinants of Health, Motivational Interviewing and Harm Reduction. We are looking to include patient boundaries and limitations in the second half of our Harm Reduction workshop this spring, as well as offer our teamwork and graduating patients sessions.

TeamSAFE: 728 students from 6 professional programs (athletic training, medicine, nursing, occupational therapy, public health, and speech-language pathology) participated in virtual TeamSAFE this past fall, with athletic training and speech-language pathology students joining for the first time. Advanced TeamSAFE will be held in March 2022. Nursing will be required to participate in this virtual simulation experience for the first time and join students from medicine, pediatric nursing practice, and pharmacy.

Team Care Planning: We look forward to piloting our new Black Maternal Health Case this spring on the East Falls Campus – our first programming to be offered in this location. Our Clinical Discharge Case will also run this spring with students from couple & family therapy, medicine, nursing, occupational therapy, pharmacy, and physician assistant studies.

Alzheimer's Virtual Interprofessional Training (AVIT): Since our last edition of the newsletter, we piloted AVIT for workforce development at The Hill at Whitemarsh, a partnering continuing care retirement community. Employees reported enjoyment in utilizing a virtual environment to practice communication skills to assist patients with dementia. Additional employee trainings will be scheduled in the spring to expand access for employees at The Hill at Whitemarsh to participate in AVIT. This spring we will also pilot a new half-day simulation format during student AVIT simulations.

Read more about AVIT in an article by faculty co-leads Jeannette Kates, PhD, CRNP, AGPCNP-BC, GNP-BC, and Susan Toth-Cohen, PhD, OTR/L along with JCIPE Director of Assessment, Evaluation & Research Richard Hass, PhD in this issue!

Enhancing Services for Homeless Populations (ESHPP): We spent the fall incorporating more harm reduction content into our virtual simulation program ESHPP. We look forward to piloting these changes with students during the spring 2022 semester.

Palliative Care: This winter, JCIPE will be facilitating an interprofessional palliative care program for Jefferson students. A faculty team piloted the program in fall 2020; that successful pilot and our receipt of 80 applications for 36 spots highlights the interest in this important topic and team-based delivery of care. Our final cohort includes 10 healthcare disciplines and 7 faculty facilitators, who serve as palliative care experts. Over the course of the next three months, students will complete a series of modules as a team, shadow palliative care rounds, and present a final research poster.

Wyss Center: JCIPE is now coordinating IP services at the Hansjörg Wyss Wellness Center, which serves as a hub for clinical and educational outreach activities; the hub focuses on immigrant and refugee populations, in addition to the surrounding South Philadelphia community. The center provides a platform to deliver full-spectrum primary care, social services, wellness activities, and other community-focused programming. JCIPE is creating orientation modules for students who rotate at Wyss and hoping to pilot a falls prevention program and offer an IP community health course in connection with the Center in the future.

Racial and Social Justice Taskforce: This past semester, we published our Diversity Statement and set to work making diversity, equity and inclusion (DEI) explicit in all our endeavors. The team finalized a draft self-study template for use across all JCIPE programs and will pilot its implementation this year. We also look forward to reflecting on the development and implementation of new DEI content such as a comparative zip code advocacy project in the Health Mentors Program, in our curricula this past fall, as well as to launching a new Black Maternal Health Case in Team Care Planning and enhanced content centering on harm reduction in Enhancing Services for Homeless Populations this spring. Some of this work was presented at Jefferson Faculty Days and the Drexel University Assessment Conference last summer and fall.

Jefferson Teamwork Observation Guide (JTOG): In the past 6 months, the JTOG app has been used over 7,000 times by students as well as faculty and staff program advisors and facilitators. This newsletter features an important piece about efforts to allay a ceiling effect in IPE assessment tools with JTOG as an example. JCIPE is very excited to receive the first JTOG dataset from an external partner institution, and we continue to work toward updating the app and the administrator dashboard based on great feedback from current users. Stay tuned for a potential Spanish translation of our Team JTOG and external app release in the coming months!

Impact of an Interprofessional Alzheimer's 3-D Virtual Training on Student Knowledge and Confidence



Jeannette Kates, PhD



Susan Toth-Cohen, PhD



Richard W. Hass, PhD

The collaborative approach to providing care for PwD is less a defined structure than a model of care that utilizes an interprofessional team to provide comprehensive care to patients and their caregivers (Galvin, et al., 2014). In this approach, each member of

the care team provides their own clinical strengths. However, working together in an interprofessional manner is often undermined by a lack of understanding of the nature and scope of responsibilities among healthcare professionals (Warshaw & Bragg, 2014). Interprofessional education (IPE) is a way to increase this understanding and is considered essential for developing "collaboration-ready" practitioners (Hopkins, 2010). Although IPE in dementia care could provide the knowledge and skills necessary to deliver collaborative practice, there is a weak body of published literature related to IPE interventions in dementia care (Jackson, et al., 2016).

Background

Three-dimensional virtual worlds (3-DVW) enable participants to access virtual environments, interact with digital objects, represent themselves through avatars, communicate with other participants, and take part in experiences incorporating modeling and mentoring about problems similar to those in a real-world context (Duncan, et al., 2012). 3-DVW are one of three basic types of virtual reality (VR, Bracq et al., 2019): 1) Screen based systems (SBS), used extensively for training technical skills such as surgical techniques; 2) 3-DVW, which use desktop or laptop systems in which learners enact roles as avatars to practice skills central to collaborative

practice; and 3) immersive virtual reality (IVR), which provides an environment that blocks perception of the outside world using a head-mounted display (HMD).

Accessed online, 3-DVW provide meaningful opportunities for students to practice communication with patients and other providers in a safe, low-stakes environment. Simulation using 3-DVWs allows for the inclusion of geographically diverse learners and the simulation of physically, ethically, or financially prohibitive scenarios (Ghanbarzadeh, et al., 2014; Warburton, 2009). 3-DVWs can create transformative experiences for students to practice interpersonal skills, such as teamwork and communication, within a social environment (Bracq, et al., 2019; Edwards, 2012).

The Jefferson Center for Interprofessional Practice and Education (JCIPE) created Alzheimer's Virtual Interprofessional Training (AVIT) in the 3-DVW of Second Life™. Using avatars, students participate in three case-based simulations that follow Mrs. Jenkins, an African-American woman with dementia, over a period of six years. The first simulation takes place in Mrs. Jenkins' primary care office where she is being seen for a follow-up appointment for hypertension. This case focuses on recognizing signs and symptoms of dementia. The second simulation, occurring 3 years later, takes place in Mrs. Jenkins' home following hospitalization for a fall. This case focuses on home safety for Mrs. Jenkins and caregiver support for her daughter. The third simulation occurs in the long-term care facility where Mrs. Jenkins is living. The third case takes place 3 years after the home visit and focuses on the management of dementia-related behavioral issues. The purpose of this study was to assess the impact of AVIT on students' knowledge and confidence related to dementia care.

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Introduction

Dementia is a term used to describe a range of neurological conditions that cause the loss of the ability to think, remember, and reason to levels that affect daily life and activities (National Institute on Aging, n.d.). Almost 6 million Americans age 65 and older currently live with dementia and this number is expected to rise to 14 million by mid-century (Alzheimer's Association, 2020). Alzheimer's disease is the most common type of dementia and accounts for approximately 60-80% of dementia cases (Centers for Disease Control and Prevention [CDC], 2019a). In 2019, more than 16 million family caregivers provided an estimated 18.6 billion hours of care to persons with dementia (PwD) in the United States (U.S.) (Alzheimer's Association, 2020). Compared with caregivers of persons without dementia, caregivers of PwD have a higher level of caregiver burden; are more likely to experience depression and anxiety; and report greater emotional, financial, and physical stress (Hvidsten, et al., 2020; Ma, et al., 2018; CDC, 2019b). The most frequent sources of stress reported by caregivers include lack of personal boundaries among PwD, repetitive and aggressive behaviors, and need for constant care (Unson, et al., 2015). African Americans are disproportionately affected by dementia making them more vulnerable to the impact of caregiving when compared with non-Hispanic whites (Alzheimer's Association, n.d.; U.S. Department of Health and Human Services, 2014).



The participants' view from inside Ms. Jenkins' environments in the virtual world

Methodology

AVIT was implemented with 24 students [nurse practitioner (n = 13), pharmacy (n = 6), medicine (n = 4), occupational therapy (n = 1)] at Jefferson in summer 2021. The basic format of AVIT is preparation, simulation, and debriefing. First, students prepared for AVIT by reading evidence-based content related to dementia, reviewing their assigned roles in the simulation, and receiving an orientation to the AVIT 3-DVW. Then, students participated in interprofessional teams of 3-5 learners to enact the roles of provider(s), patient, caregiver, and observer in each of the cases. After each case, faculty facilitated a debriefing of the case within their assigned interprofessional teams. At the end of all 3 cases, the entire student group debriefed with faculty facilitators about lessons learned related to dementia care and IPE.

JCIPE-developed surveys to assess knowledge and confidence were administered pre- and post-participation in AVIT. Knowledge was measured with a percent-correct score across 25 items that consisted of a mix of multiple choice, true/false, and matching. Confidence was measured as the average of 6 items on which students rated how strongly they agreed with statements such as "I feel confident identifying the potential signs of dementia" on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The post-survey also included a student satisfaction section eliciting feedback on the content and format of the virtual program and preparatory materials. Pre-post changes on each variable were evaluated with paired-samples t-tests using data from students who completed both pre-test and post-test assessments. Confidence scale scores were evaluated for internal consistency using coefficient α .

Results

Twenty students [nurse practitioner (n = 9), pharmacy (n = 6), medicine (n = 4), occupational therapy (n = 1)] completed both pre- and post-tests, for an 83% total response rate. Students averaged 86.35% (SD = 7.64) correct on the pre-test knowledge items and performance increased significantly to 89.74% correct (SD = 5.75) at post-test, $t(19) = 2.74, p = .01, d = 0.68$. So, while students start AVIT with substantial knowledge about dementia care

and IPE, they showed consistent increases in their knowledge. Pre-post gains in confidence were also significant ($t(19) = 4.67, p < .001, d = 1.04$). Pretest confidence scores averaged 3.83 (between neutral and agree, SD = 0.62) while post-test confidence scores averaged 4.24 (between agree and strongly agree, SD = 0.54). These gains in confidence were more sizable than those in knowledge. Finally, though the process of validating the confidence items is ongoing, internal consistency of the confidence survey was high at pretest ($\alpha = .91, 95\% \text{ CI: } .85, .97$) and at post-test ($\alpha = .94, 95\% \text{ CI: } .90, .98$). The latter result suggests that the confidence scale scores (averages) contain very little measurement error. Reliability analysis of the knowledge items requires a larger sample size.

Related to student satisfaction, 84% reported their overall experience with AVIT as good or excellent. Ninety-two percent of participants regarded the preparatory materials as valuable. Most students rated the simulation (88%) and debriefing (84%) as valuable. In response to the question, "What were your main takeaways from this experience," students reported on benefits related to working in an interprofessional team and gaining insight into complex care of PwD and their caregivers (see Figure 1).

Discussion

The aim of this study was to examine the effect of AVIT on health professional students' knowledge of and confidence in dementia care. Students demonstrated gains in knowledge and confidence in dementia-related care after participating in AVIT. These findings contribute to previous evidence of improved dementia-related knowledge (Annear, et al., 2016; Mastel-Smith, et al., 2019) and confidence (Mastel-Smith, et al., 2019) with IPE interventions. Increasing health care professionals' knowledge and confidence has benefits for dementia care delivery and provider wellbeing (Rivett, et al., 2019).

The surveys used in this study were newly-developed by JCIPE and, thus, psychometric data were not available. In this study, it was promising that the internal consistency of the confidence survey was high at pre- and post-test suggesting very little measurement

error. Unfortunately, the sample was not large enough to complete reliability analysis of the knowledge survey. Further work is needed to refine and validate these surveys.

The use of a 3-DVW for interprofessional dementia education is innovative. Although IVR and 3-DVW have been used for dementia education, most existing research was conducted with different populations than our sample (Hirt & Beer, 2020). Adefila and colleagues (2016) have published on their work with interprofessional students; however, this program differed from AVIT in that it immersed learners in sensory and task-related challenges using IVR. In addition to the potential for learning innovation, AVIT provides a flexible IPE learning opportunity for learners from different geographic locations.

Conclusion

The care of PwD and their caregivers is complex and requires specialized knowledge and communication skills. Given the lack of robust published literature related to IPE interventions in dementia care (Jackson, et al., 2016), AVIT represents an innovative IPE experience for health professional students to learn to provide care for PwD and their caregivers.

References

- Adefila, A., Graham, S., Clouder, L., Bluteau, P., & Ball, S. (2016). myShoes – The future of experiential dementia training? *Journal of Mental Health Training, Education and Practice, 11*(2), 91-101.
- Alzheimer's Association. (2020). Alzheimer's disease facts and figures. *Alzheimer's Dementia, 16*, 391-460. <https://doi.org/10.1002/alz.12068>
- Alzheimer's Association. (n.d.). African americans and alzheimer's disease: The silent epidemic. Retrieved from <https://www.alz.org/media/Documents/african-americans-silent-epidemic-r.pdf>
- Annear, M. J., Goldberg, L. R., Lo, A., & Robinson. (2016). Interprofessional curriculum development achieves results: Initial evidence from a dementia-care protocol. *Journal of Interprofessional Care, 30*(3), 391-393. <https://doi:10.3109/13561820.2015.1117061>
- Bracq, M. S., Michinov, E., & Jannin, P. (2019). Virtual reality simulation in nontechnical skills training for healthcare professionals: A systematic review. *Simulation in Healthcare, 14*(3), 188-194.

Figure 1. Selected student quotes on the value of AVIT Training.

What were your main takeaways from this experience?
I learned more about the role of an interprofessional team in caring for a patient and caregiver with Alzheimer's. I also learned ways to help the caregiver and reduce their burden.
Both the patient's and caregiver's needs must be addressed in a complex disease such as Alzheimer's. It's important to acknowledge that the caregiver also experiences the consequences of the disease and the difficulty that comes with caring for a parent with dementia.
Learning more about all aspects of care with this patient population and how they progress over time.
This was a great learning experience to gain insight of the patient, family, and care team of a patient with Alzheimer's Disease. I enjoyed reading information leading up to the cases and working through each case with members of OT and Pharmacy.
It was a good learning experience seeing the patient's trajectory from being independent to being in a nursing home. The case gave a good insight into caregiver stress and outlined the importance of each health care provider.

Centers for Disease Control and Prevention. (2019a). *Caregiving for a person with alzheimer's disease or a related dementia*. Retrieved from <https://www.cdc.gov/aging/caregiving/alzheimer.htm#:~:text=Approximately%20two%2Dthirds%20of%20dementia,for%20children%20under%20age%2018>

Centers for Disease Control and Prevention. (2019b). *What is Dementia?* Retrieved from <https://www.cdc.gov/aging/dementia/index.html>

Duncan, I., Miller, A., & Jiang, S. (2012). A taxonomy of virtual worlds usage in education. *British Journal of Educational Technology*, 43(6), 949-964. <https://doi.org/10.1111/j.1467-8535.2011.01263.x>

Edwards, T. M. (2012). Transformative learning theory as a framework for designing experiences in virtual worlds as appropriate to counsellor education. Retrieved from www.inter-disciplinary.net/wp-content/uploads/2012/02/edwardsepaper.pdf.

Galvin, J. E., Valois, L., & Zweig, Y. (2014). Collaborative transdisciplinary team approach for dementia care. *Neurodegenerative Disease Management*, 4(6), 455-469.

Ghanbarzadeh, R., Ghapanchi, A. H., Blumenstein, M., & Talaei-Khoei, A. (2014). A decade of research on the use of three-dimensional virtual worlds in health care: A systematic literature review. *Journal of Medical Internet Research*, 16(2), e47.

Hirt, J., & Beer, T. (2020). Use and impact of virtual reality simulation in dementia care education: A scoping review. *Nurse Education Today*, 84, 104207. <https://doi.org/10.1016/j.nedt.2019.104207>

Hopkins, D. (Ed.). (2010). *Framework for action on interprofessional education & collaborative practice*. World Health Organization.

Hvidsten, L., Engedal, K., Selbaek, G., Wyller, T. B., Benth, J. S., Bruvik, F., & Kersten, H. (2020). Quality of life of family carers of persons with young-onset compared to late-onset dementia. *Aging and Mental Health*, 24(9), 1394-1401.

Jackson, M., Pelone, F., Reeves, S., Hassenkamp, A. M., Emery, C., Titmarsh, K., & Greenwood, N. (2016). Interprofessional education in the care of people diagnosed with dementia and their carers: A systematic review. *BMJ Open*, 6(8), e010948. <https://doi.org/bmjopen-2015-010948>

Ma, M., Dorstyn, D., Ward, L., & Prentice, S. Alzheimer's disease and caregiving: A meta-analytic review comparing the mental health of primary carers to controls. *Aging and Mental Health*, 22(11), 1395-1405.

Mastel-Smith, B., Kimzey, M., Garner, J., Shoair, O. A., Stocks, E., & Wallace, T. (2019). Dementia care boot camp: Interprofessional education for healthcare students. *Journal of Interprofessional Care*, 34(6), 799-811. <https://doi.org/10.1080/13561820.2019.1696287>

National Institute on Aging. (n.d.) *What is Dementia?* Retrieved from <https://www.alzheimers.gov/alzheimers-dementias/what-is-dementia>

Rivett, E., Hammond, L., & West, J. (2019). What influences self-perceived competence and confidence in dementia care home staff? A systematic review. *Psychogeriatrics*, 19(5), 440-456. <https://doi.org/10.1111/psyg.12422>

Unson, C., Flynn, D., Glendon, M. A., Haymes, E., & Sancho, D. Dementia and caregiver stress: An application of the reconceptualized uncertainty in illness theory. *Issues in Mental Health Nursing*, 36(6), 439-446.

U.S. Department of Health and Human Services. (2014). Racial and ethnic disparities. Retrieved from <https://aspe.hhs.gov/report/racial-and-ethnic-disparities-alzheimers-disease-literature-review>

Warshaw, G. A., & Bragg, E. J. (2014). Preparing the health care workforce to care for adults with Alzheimer's disease and related dementias. *Health Affairs (Millwood)*, 33, 633-641.

Warburton, S. (2009). Second Life in higher education: Assessing the potential for and the barriers to deploying virtual worlds in learning and teaching. *British Journal of Educational Technology*, 40(3), 414-426.



Meet an IPE Student Champion from Thomas Jefferson University Ashton Guidebeck, MS in Couple and Family Therapy, Class of 2022

Briefly describe your work with/ related to JCIPE:

My JCIPE journey began with the Health Mentors Program my first semester at Jefferson. I represented the couple and family therapy (CFT) program as a collaborative care team member, team

liaison, and (CFT) program liaison. Each day I have found myself progressively more aligned with JCIPE's mission, jumping at many of the opportunities it creates for Jefferson students. For example, at the end of Module 2, I participated in a Design Sprint session hosted and facilitated by the Jefferson Health Design Lab to get in touch with student input related to program goal attainment. Inspired by this experience, I decided to personally reach out to lead HMP faculty, which led to involvement with redesigning the Module 1 curriculum over the past summer. What is more, I got to co-facilitate M1 orientation for this year's incoming students. My experiences seem to be culminating as a second-year as I engage with HMP's Module 3 and the Hotspotting Program.

What excites you about this work?

I have devoted my studies to explore the interdependence of mental, physical, and relational health dating back to the start of my undergraduate studies. This multidirectional, interlocking relationship between individual health and health systems challenges us to persist in trying to understand healthcare despite never fully identifying the exact and intricate interdependent dynamics at play. It is this complexity of the health puzzle and the lasting impacts of its nature which fascinates me. Our persistence with applying observation, data collection, and data analysis to understand relational dynamics better and impact healthcare outcomes is what keeps me engaged. I'm committed to building frameworks and standardization to improve individual, relational, and societal health for the better.

What have you learned that was new?

Through my involvement with JCIPE, I've learned that there are communities around me devoted to advancing the same healthcare values and goals as me - communities built upon an understanding that there are unseen and intolerable consequences resulting from the maintenance of the current healthcare system. In my year of involvement with JCIPE, I've learned new language, skills, and frameworks and been met with many new perspectives that continually reassure my commitment to engaging with and promoting these conversations.

Why is IPE/CP important to you?

Since I tend towards contextual ways of thinking, I believe that health care uninformed by the studies of social determinants of health leaves us with inadequate explanations for understanding health concerns, and consequently, inadequate remedies for combating them. IPE/CP has proven to be one effective way of addressing such oversights in the current healthcare system. IPE/CP accomplishes this by prioritizing clinician experiences that focus on developing a larger picture of patient care and practicing basic interrelational skills within an interprofessional team. In this way, not only does this approach contextualize and humanize patient experiences, it does the same for the teams providing patient-centered care.

How do you think you will apply your IPE/CP learning to your future role?

Currently, I am applying to Medical Family Therapy Ph.D. programs for Fall 2022 admission. In the coming years, I intend to continue developing and applying an interprofessional approach via my role as a health care provider. Ultimately, I plan to be involved in the education of future generations of student clinicians, the disruption of current systems, and the curation of new ones.

Addressing Ceiling Effects in IPE Assessments



Richard W. Hass, PhD



Jasmine Tenpa, MBBS, MPH

Statement of Problem

Interprofessional education (IPE) programs often employ ratings-based evaluations to gauge the level of interprofessional competency of students. Such evaluations are usually conducted through behavior-based systems of assessments (as opposed to self-reported attitudes and beliefs) designed to capture collaborative behavior both in educational settings and clinical settings (Committee on Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes, 2015). To aid proper development of interprofessional competencies, these assessment systems must provide reliable and valid feedback to students and professionals.

Background

The Jefferson Teamwork Observation Guide® (JTOG®) is a real-time, 360-degree competency-based assessment tool that measures how well teams and individuals collaborate in educational and practice settings. Available in both paper and mobile app form, the JTOG was initially designed in 2012 (Lyons, et al., 2016) and has since evolved both in content and scoring methods. Recently, the content of the JTOG items was updated to provide more succinct descriptions of competencies, and

developmental language was added to the rating scale (e.g., 1 = needs improvement; 7 = exceeds expectations, Sicks, et al., 2021).

Despite positive movement toward app development, ceiling effects are evident in JTOG scores, an issue that seems to plague many IPE assessment tools (e.g., Hass, Collins, & Sicks, 2020). A ceiling effect is present when observations are bunched up at the high end of the measurement scale (Cramer & Howitt, 2004). Ceiling effects hamper research efforts partly due to their deleterious effects on most inferential statistical procedures (via restricted range and skew). Thus, in order to continue to explore the underpinnings of teamwork in IPE settings, and to properly evaluate interventions designed to enhance collaborative competencies, it is important to address ceiling effects on tools like JTOG.

In 2021 we developed a training video instruction process, which included a description of the JTOG, how to use it, and what it measures. We stressed in the video that when using the JTOG mobile app, ratings remain confidential—no other members of the team will know exactly what an individual team member gave for ratings. We hypothesized that training students explicitly on how to use the tool would reduce ceiling effects. Here, we report some preliminary findings from the use of this training video in a TeamSTEPPS®-based interprofessional teamwork and patient safety simulation.

Methodology

This intervention used TeamSAFE, an interprofessional simulation program adapted from the TeamSTEPPS curriculum in which students role-play in a scenario involving patient safety (King et al., 2021). The 2021 TeamSAFE sessions were administered virtually, and 584 students used the app to rate the performance of one of the role-

playing teams following the simulation. Students used the Team JTOG, a 13-item version of the tool in which observers and team members rate the behaviors of an entire team.

The preparatory work for these 2021 TeamSAFE sessions included a module hosted in Canvas with a 3-minute training video created by the authors to emphasize the importance of accurate JTOG ratings. The video included narration describing the purpose of the JTOG (to measure IPEC competencies), the fact that JTOG scores are not grades, and that member ratings are confidential. The video also included a 1-minute exercise where students were instructed to think of a past experience with teamwork, either in a clinical or educational setting, and then rate that team on examples of four JTOG items. To examine potential impact of the training video on ratings, we used ratings from 403 students given during TeamSAFE sessions in Fall 2020 as a comparison. To further explore whether facilitators also exhibit ceiling effects, ratings given by facilitators of the Fall 2021 sessions (N = 28) were also analyzed.

Results

For each student, an average JTOG score was computed by taking the mean across the ratings of the 13 items. Multilevel reliability analysis (using composite reliability) showed that JTOG average scores were a highly reliable measure of overall IPEC competencies ($\omega = .98$). Using multilevel modeling to model dependencies among ratings from the same session, we compared 2021 session-level average JTOG scores to those obtained in Fall 2020. As shown in Figure 1, the scores from 2021 fall sessions (M = 5.76, SD = 1.05) were estimated to be higher than those obtained

Figure 1 – Violin and box plots of student JTOG scores for sessions before the addition of the video (2020) and after (2021).

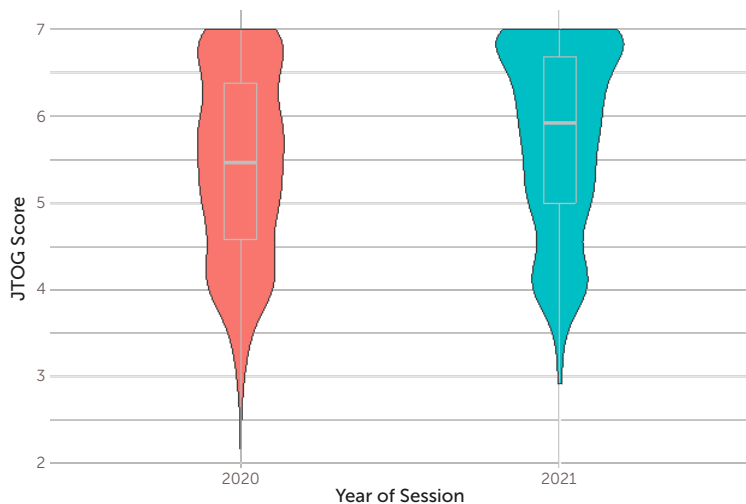
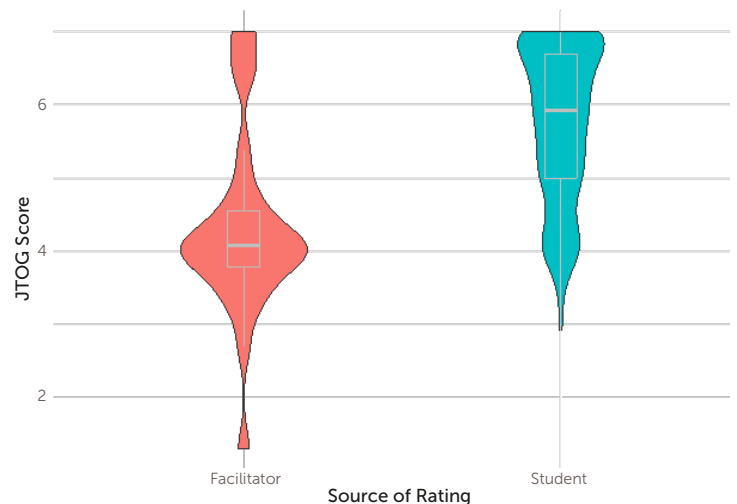


Figure 2 – Violin and box plots of facilitator and student scores for sessions in 2021.



in Fall 2020 ($M = 5.44$, $SD = 1.08$), $b = 0.34$, 95% CI: 0.15; 0.53. The confidence interval suggests the effect may be as little as a 1/10 of a point to about half a point difference in average scores from students in the two different years.

Figure 1 also illustrates ceiling effects in both years, though the 2021 ceiling effect appears more severe. As can be seen, scores bunch toward the top of the scale, with 75% of scores above 4.5 in 2020 and 75% of scores above 5.0 in 2021. Figure 2 illustrates the difference in the distribution of average JTOG scores between students and facilitators in the 2021 sessions. Facilitator scores are more evenly spread and appear to conform to a normal distribution. No inferential tests were performed due to the imbalance in sample sizes, but the figure clearly shows that the distribution of facilitator scores is not skewed, nor does it illustrate a ceiling effect. Due to issues with the app roll-out in 2020, comparable facilitator data were not available for that year. We suspect that the same trend would be evident in the 2020 data.

Discussion

The purpose of this analysis was to begin exploring interventions to assess interprofessional competencies while reducing the ceiling effect in JTOG scores, an issue relevant for all IPE assessments. Contrary to our intent, the introduction of a training video to TeamSAFE pre-work did not lead to a reduction of the ceiling effect, likely because there was no assignment linked to watching it. Since the video was hosted in Canvas, it was possible to check how many students navigated to the video, and unfortunately, less than 1% of students watched it. So simply offering a training video for JTOG is not enough to ameliorate the ceiling effect.

In the absence of an external, gold standard IPEC assessment tool, facilitator ratings served as our standard. All TeamSAFE facilitators are trained in both the IPEC competencies and TeamSTEPPS skills and can be considered experts in identifying levels of competency. Our comparison of the facilitator and student ratings suggests that the distribution of JTOG student scores may be inflated by lack of expertise in identifying levels of competencies, or by the students' use of a more lenient system of assessment than the facilitators. The latter may be linked to students' level of comfort in providing feedback to peers. Though individuals' ratings are not displayed to other users (i.e., aggregate ratings across only teams of five or more people are shown in the app), it is possible that students shy away from giving more critical feedback simply due to social pressures. This suggests that, in addition to training students to accurately identify levels of interprofessional competency in their peers, training efforts should focus on informing students on how to give constructive feedback to peers. Continued research in this area should be a priority in all educational and clinical settings.

Conclusion

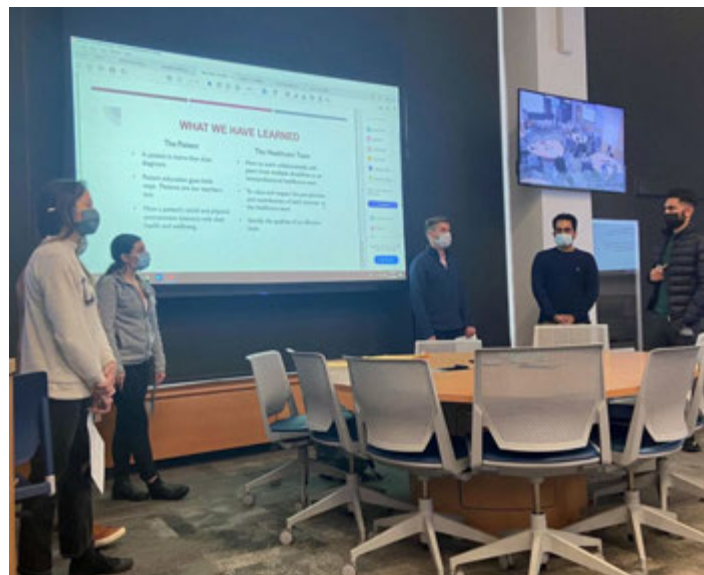
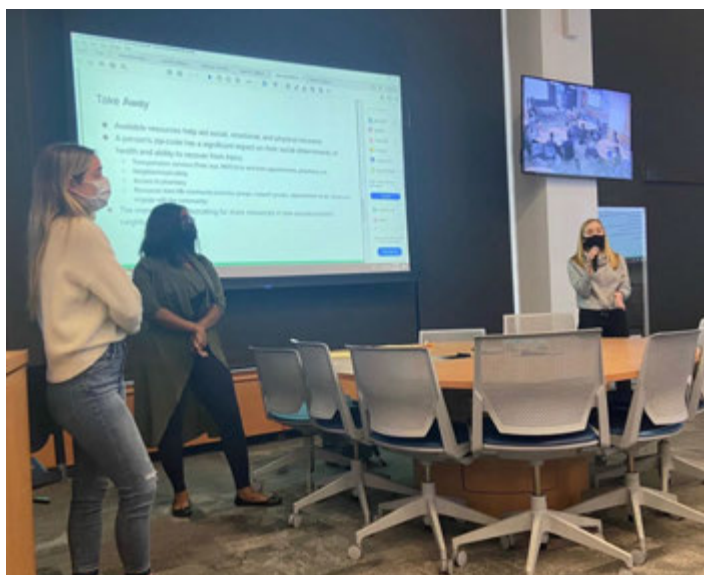
Though our initial effort to reduce the ceiling effect in JTOG scores did not succeed in this study, we believe that the primary issue was that students did not take the time to watch the training video, despite reminders to do so as a part of pre-simulation work. The main takeaway for educators is that students likely need additional training both in identifying different levels of IPEC competencies, and more importantly, in how to provide critical yet constructive feedback to peers. The JTOG

app was designed to provide confidential feedback to team members to facilitate such training, but pedagogical practices need to be developed to better equip students with skills for providing such feedback.

References

- Committee on Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes; Board on Global Health; Institute of Medicine. (2015). *Measuring the impact of interprofessional education on collaborative practice and patient outcomes*. Washington (DC): National Academies Press (US); Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK338356/>
- Cramer, D. & Howitt, D. L. (2004). *The SAGE dictionary of statistics: A practical resource for students in the social sciences*. SAGE.
- Hass, R. W., Collins, L., & Sicks, S. (2020). Factor structure and measurement invariance of the Jefferson Teamwork Observation Guide® (JTOG®) individual version. *Journal of Interprofessional Education & Practice*, 18, 100304.
- King, A. E., Gerolamo, A. M., Hass, R. W., Libros, S., & Forstater, A. T. (2021). Evaluation of an interprofessional team training program to improve the use of patient safety strategies among healthcare professions students. *Journal of Allied Health*, 50(3), 175-183.
- Lyons K.J., Giordano C., Speakman E., & Smith, K., Horowitz J.A., (2016). Jefferson teamwork observation guide: An instrument to observe teamwork behavior. *Journal of Allied Health*, Spring 2016, Vol 45, No 1.
- Sicks, S., Umland, E., Koch, A., Hass, R. W., & Tenpa, J. (2021). Measuring interprofessional education and collaborative practice competencies: a content validity study of the Jefferson Teamwork Observation Guide®. *Journal of Interprofessional Care*, 1-7. Published online: 01 Oct 2021.

137 teams shared their advocacy projects to cap off their Health Mentors Program experience



Students in Cohort 14 identified an organization that supports wellness for their Health Mentor or compared healthcare access and services in their Health Mentors' zip code and other local zip codes.

Interviews with Health Mentor Jon Moore and Nursing Student/HMP Participant David Kaplan

The Health Mentors Program (HMP) is an 18 month long longitudinal IPE curriculum, designed to provide students the opportunity to learn and work in a collaborative environment. Centered in this collaborative learning experience is the community volunteer (Health Mentor). Health Mentors are paired with a team of students and share their life experiences, helping students learn knowledge and skills that are important to being a good health professional. Jon Moore is one of our generous Health Mentors. He was born, raised, and currently resides in Philadelphia. Jon enjoys cooking, watching movies, shopping, and traveling. David Kaplan is an undergraduate nursing student at Jefferson, who recently participated in the Health Mentors Program; David also shared a reflection with us on the lessons he learned from his Health Mentor during their time together.



**Jon Moore,
Health Mentor**

What was your background, prior to becoming a Health Mentor?

I am a retired transportation employee, and noise was a big thing around me as a mechanic, as it damaged my left ear. I was usually asked by foremen

and assistant managers to fix problems, and was often told “we believe you are the only person who knows how to do it and get things corrected”. I tried to be proactive and give my colleagues enough products while I was on vacation, for example. I am also a minister.

How did you get involved with the Health Mentors program at Jefferson?

One of my doctors recommended it to me, and I put my name on the list. I knew a little bit about the program, but I really went into it blindly and open to the opportunity for a new experience. I am in a wheelchair, but I like to be free and be able to function and get around.

What was it like working with your student group for the first time?

I feel like I learned a lot about my students, and how the Health Mentors program really works. I shared my story with the students, since they are working with patients who have chronic diseases, and I wanted them to learn about how we (patients) function in our communities.

I also wanted to help them understand how people of faith (of all faiths) have a different way of functioning, and seeking support through their trials and tribulations.

When the team came to visit my home in-person, a student said they were surprised to see my apartment so clean. I was not sure how to respond to that at first. I feel like my communities are portrayed in a certain way, but I don't take it as a negative. I help students to see what they are seeing and why, so they can look beyond these portrayals. I want to help people to learn that even though you have a disability, don't let it control you. You can overcome it and be able to be a part of society no matter what.

What has your overall experience been like in the Health Mentors Program?

Well last year (2020-21), everything was mostly done virtually. In-person meetings were actually a challenge for me, since I have a problem with hearing in one ear, and the noise can override me trying to hear my team. Last year, I could show them my home virtually, which was a different experience. The student team didn't get to see my full neighborhood, but they could see what my home looked like.

I also live in the area that has the lowest vaccination rate in Philadelphia. When I mention that to the students, it makes them think. In healthcare, they can be a part of something worthwhile, advancing humanity, but they need to start to ask big questions.

plays in the healthcare space, especially achieving better health outcomes for patients.

What did your group learn from your Mentor?

Our group has enjoyed getting to know our Mentor over the course of the program. She has been a true partner and we all have learned a great deal from her. From these conversations we were able to glean several outcomes: 1) the importance of eliminating barriers to care at Jefferson—whether it is proximity or access 2) being an advocate for your patient even if they are health literate 3) cultural factors affecting how society views people with certain health diagnoses and 4) using public policy to improve access to

What are your takeaways from participating in the 2021 Design Sprint?

I thought it was interesting to be able to share pointers of things I was seeing in the Health Mentors Program. For example, we are only allowed an hour with the students, but there are so many questions, the time can feel rushed, and like we are not able to think things through. There were also advantages to both virtual and in-person that I was able to discuss, like how seeing my apartment virtually provided students with a different point of view.

How do you engage with your various communities?

I like getting out and meeting with different people in my community. I've learned that if you greet each and every person as you pass by them, they will respond. I am always opening up doorways to develop relationships. I think my ministry background opens the door of communication, for feedback and support of what is going on in the community. I try to encourage others, like when I go to the Y, as it helps me stay mobile and stay physically able, and people say they are glad to see me.

I also work with seniors, and try to engage with the ones who stay at home a lot. I wish we had a real senior center around here where they could go to for activities, as social and physical stimulation are so important. Once a month, I also form a group that goes out to eat together.

I try to share love, as we've forgotten what it really means to love one another.



**David Kaplan, BSN,
Class of 2022**

What were your initial impressions of the Health Mentors Program? How was the start of your experience?

Truthfully, it was a bit overwhelming trying to manage the new course load, learning virtually, and adjusting to the constantly

changing challenges of the pandemic. Despite all of that, I found the Health Mentors Program to be a good primer for learning about the critical importance interprofessional practice

specialized care and advocating change for our patients.

How did you get involved in the Design Sprint and what was it like to participate?

I found the Design Sprint to be a great opportunity to reflect on the HMP in a meaningful and productive forum. I enjoyed exploring, in a collaborative manner, ways to improve the Health Mentor/community volunteer, as well as student, experience. The Design Sprint provided a unique opportunity to see first-hand what a Design Sprint is, use new technologies, and identify opportunities to strengthen engagement for the students and Health Mentors.

Why is interprofessional education important to you? What intrigued you about programs like Health Mentors and Hotspotting?

At the core, IPE is important because it helps develop interprofessional communication, collaboration, and teamwork. It gave me an opportunity to understand the roles of other health disciplines through a shared experience. Working with an interprofessional team of healthcare professionals is an essential part of providing patient-centered care. Learning the role each specialty can play at an early stage in my career will provide immediate impact in the care that I, as a nurse, will provide on day one as I transition from being a student to a registered nurse. Throughout my previous career, I always valued being part of a high-impact team. Therefore, the Health Mentors and Hotspotting programs provide the opportunity to build and enhance healthcare professionals' ability to work with and learn from peers, develop leadership skills, and hone interprofessional communication skills that are critical to being a successful healthcare professional in the future.

How do you plan to incorporate interprofessional education into your future work as a clinician?

I will certainly seek out opportunities that will allow me to build upon my HMP and Hotspotting experiences, such as continuing education and online learning through the Interprofessional Education Collaborative.

Throughout my studies at the Jefferson College of Nursing, professors and clinical instructors emphasized the importance of understanding the collaborative care models, being part of interprofessional teams, and the critical role these teams play in providing quality, equitable care. This linkage between interprofessional education and collaborative care models is essential to improve patient outcomes, retain healthcare staff, reduce costs, and provide better quality and safety within the greater healthcare space.

What advice do you have for students who participate in IPE programs?

Utilize every opportunity to advance your knowledge, sharpen your skills, and improve your

abilities in working closely with an interdisciplinary team in an educational setting. This allows you to learn from your mistakes and reflect on how you can be a better team player and practitioner with the goal of improving patient lives.

Reach out to and build relationships with your professors and clinical instructors and identify potential mentors to gain deeper insights into the theory and practice of key concepts discussed throughout the IPE programs.

Maintain your relationships with your team beyond the Health Mentors Program, Hotspotting program, or other IPE program. As an aspiring healthcare professional, you have invested time and energy into building a positive working relationship with your team. Although not everyone will remain at Jefferson, or in Philadelphia, you still have a shared experience which you should draw upon after graduating and employ in the professional setting.



Meet an IPE Faculty Champion from Thomas Jefferson University Louis N. Hunter, PT, DPT / Associate Professor, Department of Physical Therapy, Director of Global Strategic Initiatives, Jefferson College of Rehabilitation Sciences

Briefly describe your work with/related to JCIPE:

As a faculty member in the Department of Physical Therapy, I am responsible for the following

courses in the Doctor of Physical Therapy (DPT) Program: PT 538 Psychosocial Aspects of PT/PTs as Teachers and Learners and PT 632 Healthcare Delivery Systems.

For PT 538 Psychosocial Aspects of PT/PTs as Teachers and Learners, I have been fortunate to work with an interprofessional team of faculty from pharmacy, occupational therapy, physical therapy, nursing, and couple & family therapy. This team has determined core content that relates to all our professions and has created online course modules and symposiums to cover this content for the students in these programs. Some of the content includes patient safety and error reduction, end of life care, and substance use disorders. In 2018, the team was able to present their work through JCIPE's Interprofessional Care for the 21st Century conference.

For PT 632 Healthcare Delivery Systems, I have found that I am able to expand on some of JCIPE's Health Mentors Program curriculum in this course when I cover topics, such as the social-ecological model, health advocacy, and public policy for the third-year DPT students. I have found that serving as a faculty facilitator for module 3 in the Health Mentors Program was a great opportunity to gain an understanding of how the above topics have been introduced to Jefferson students in the first two years of their professional programs.

In addition to some of my above teaching responsibilities, I have been involved with JCIPE in my current administrative role as the Director of Global Initiatives for Jefferson College of Rehabilitation Sciences and as a former Co-Chair of Thomas Jefferson University's Global Health Initiatives Council (GHIC) from 2014-2020. I have consulted with members of the JCIPE leadership team regarding how to implement interprofessional opportunities related to local and global education activities and programming for Jefferson students, faculty, and staff.

Most recently, I am part of an interprofessional team, facilitated by JCIPE, whose focus is to provide education, experiential learning opportunities, clinical practice, and community outreach initiatives at the Hansjörg Wyss Wellness Center located in South Philadelphia. The team consists of representatives with expertise in medicine, public health, physical therapy, occupational therapy, nursing, and community and trauma counseling.

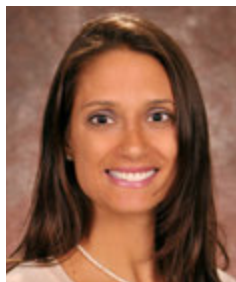
What excites you about this work?

I think what excites me about this work is that it allows me the opportunity to meet and establish relationships with my colleagues across other professions regarding interprofessional education (IPE) and collaborative practice (CP). In addition, I value the process of working on interprofessional teams to create and develop didactic and experiential learning opportunities for Jefferson students. In our planning meetings, I find that I am always learning from my colleagues about innovative ways to deliver course content, new references and resources for topics that relate to all our professions, and strategies to implement in clinical and community-based practice to address health disparities. Finally, I think that it is exciting when you see students applying IPE concepts to case studies, class discussions, and/or experiential learning opportunities (e.g. interprofessional pro bono clinics).

Why is IPE/CP important to you?

I think that IPE and CP are important to me because there are several factors that influence an individual's health. I don't think one profession or professions practicing independently can manage an individual's health or even a community's health. I think that IPE, especially JCIPE's IPE programs, teach Jefferson students the importance of bringing professions together in teams to address the health needs of individuals and communities both local and global, especially vulnerable populations. Without IPE and CP, students and current professionals would not be equipped to deliver the most optimal care possible. They would also not be able to contribute to the development of equitable policies and programs that can reduce health disparities and improve health outcomes both locally and globally.

Leveraging Similar Interests and Diverse Perspectives Through Interprofessional Team Science: A Reflection



Angela Gerolamo, PhD

I entered academia after working at a policy research firm for several years. I was the only nurse on staff at the organization and worked with individuals from a variety of non-clinical professions including applied economics, statistics, health policy,

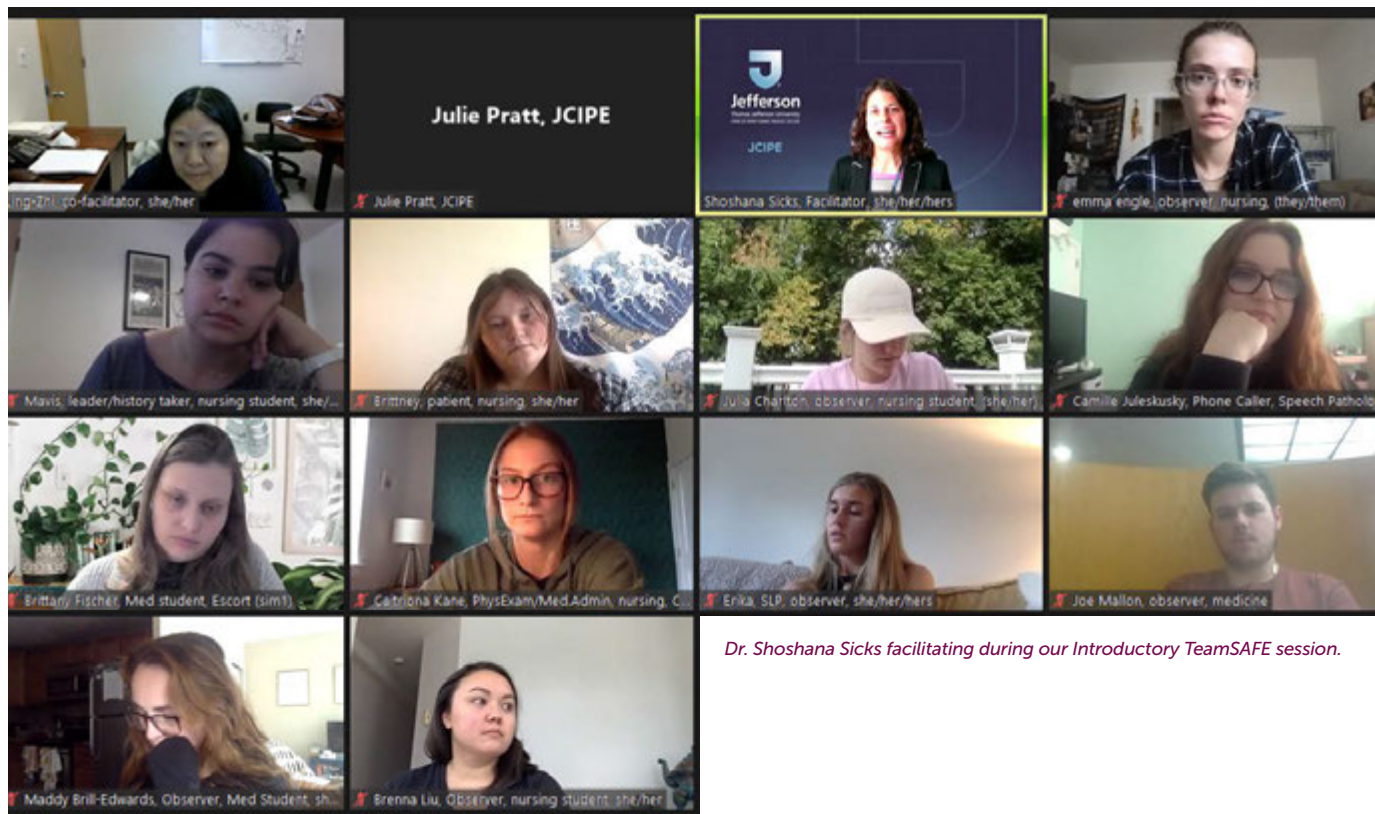
and program evaluation. While I enjoyed my work and colleagues, I felt too far removed from direct care, so I transitioned to the Jefferson College of Nursing. I have always been passionate about working with vulnerable and disadvantaged populations: in particular, individuals with mental health problems. It was through my interactions with patients early in my nursing career that I observed the inequities in care received by individuals with mental illness. While we stabilized patients' conditions with medications, once we discharged them from the hospital, they returned to difficult social conditions and fragmented health care. It was clear that the system was broken and care transitions lacked effective coordination.

As a new member of faculty at the College of Nursing, I embraced the like-mindedness

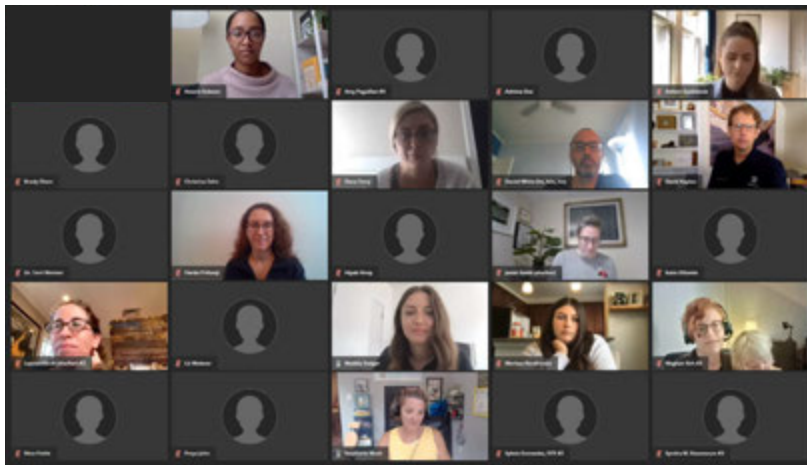
of my clinician colleagues and looked for opportunities for collaborative research. One day, I received an email from Dr. Kristin L. Rising, Associate Professor and Director of Acute Care Transitions Department of Emergency Medicine, Director of Jefferson Center for Connected Care, looking for a nurse collaborator. Dr. Rising had previously identified fear and uncertainty as potentially important predictors of emergency department (ED) utilization. Recognizing the importance of interdisciplinary collaboration to advance science, she invited me to collaborate on this important topic. We quickly secured an Emergency Medicine/ Emergency Nursing Association grant in June 2016 with Dr. Rising and myself as co-principal investigators. This award funded the initial project, *Measuring Patient Uncertainty During Acute Care*, in which we used group concept mapping with patients with recent ED utilization to explore domains that contribute to ED use. We subsequently leveraged these data to develop scale items to quantitatively assess patient uncertainty related to urgent care decision-making and to assess the contribution of patient uncertainty to subsequent ED care seeking. Simultaneous to this quantitative work, we conducted a qualitative study to understand reasons patients seek care in the ED during an

acute care episode. In an effort to continue to understand the needs of patients and families during care transitions, we collaborated with the Wills Eye Hospital to examine the unmet needs of individuals who experienced acute traumatic eye injury after hospital discharge. In addition, we applied for and were awarded the Clinical Research Provost Award in 2019. This qualitative study examined the unmet needs of home healthcare patients and their caregivers, and the acceptability of on-demand telehealth.

Findings from these studies suggest that patients have unmet behavioral health and psychosocial needs during care transitions, and frequently, they are not connected to behavioral health services. In some cases, patients were linked to behavioral health services, but they were perceived as inadequate, while other patients could not access services due to lack of transportation or being homebound. Our work supports the need for the development and delivery of integrated interventions that address behavioral health and psychosocial needs as well as physical needs during care transitions. The ultimate goal of our work is to inform the development of patient-centered interventions that improve the care experience and patient health outcomes.



Dr. Shoshana Sicks facilitating during our Introductory TeamSAFE session.



Dr. Brooke Salzman leading discussion in a breakout room for our Student Hotspotting Kickoff.



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