The 2016-2017 academic year has just come to a close and we celebrate many accomplishments in the program and are excited about the next steps.

In the Fall of 2016 we were joined by a new faculty member, Dr. Sarah Iribarren, who is featured in this newsletter. Sarah received her PhD in Nursing Science from the University of Utah and completed her postdoctoral fellowship with an emphasis on informatics and mHealth at the University of Columbia. We are excited to welcome her to the program!

We just completed the first year of the newly established Center for Innovation in Sleep Self-Management funded by the National Institute of Nursing Research. This Center explores informatics tools and innovative approaches to self-management of sleep across the lifespan. Center investigators examine, among other things, the value of informatics tools in the management of sleep for infants, children-parent dyads and community-dwelling older adults.

Our CIPCT curriculum committee has been busy examining current efforts at the national level to introduce accreditation standards for health informatics graduate programs and to update and enhance the curriculum with elements of data science and analytics. We hope to implement all curricular changes within the next academic year.

Our students engage in diverse and exciting scholarly projects. In this issue we learn more about a number of recently-completed projects: Lorelei Felipe conducted an analysis of “Physicians’ Perceived Impact of Copy and Paste”, while Anke Hebig-Prophet explored the issue of “Provider Perception of an Intimate Partner Violence Screening Tool for Women Living with HIV”. Samantha Schmidt and Kaitlin Henningsen teamed up to take a look at “GetWellNetwork Nursing Adoptions and Perceptions”, and another team, Emily Gasser & Victoria Johnson, examined “Perception of Healthcare Technology Utilization and Its Effects on Nurse Satisfaction”. Finally, Christina Lee performed an in-depth research review about “The Barriers and User Experience of Patient Portal among Older Adults”, and Shazia Allibhai completed a project entitled “Proficient and Pleased: How Physician Efficiency Using an EHR Relates to Overall Job Satisfaction”.

This past academic year we said goodbye to Jaime Jenkins, our CIPCT Operations Manager who has been with the program for ten years and was instrumental in the growth and expansion of our program and has tirelessly overseen recruitment, marketing and advising efforts. Jaime recently had her third baby and decided to be a stay-home mom at least for a while, and our faculty, students, alums and staff are already greatly missing her. We can’t thank her enough for all she did for our program!

Finally, this past academic year the departmental name of Biobehavioral Nursing and Health Systems (BNHS) in the School of Nursing that co-houses our CIPCT program, changed its name to Biobehavioral Nursing and Health Informatics (BNHI), as formal recognition of the increasing role of informatics in our research and educational portfolio. This recognition is also in alignment with the ever-expanding role of informatics in the new era of precision health and its role in understanding and even predicting behavioral, environmental, genetic and physiological parameters of individuals’ well-being and public health.
I recently joined the University of Washington (UW) as an assistant professor in the department of Biobehavioral Nursing and Health Informatics, School of Nursing. I received my PhD in nursing and global health from the University of Utah. Prior to joining UW, I completed a postdoctoral fellowship at Columbia University in Comparative and Cost-Effectiveness Research Training for Nurse Scientists. This fellowship allowed me to work with senior scientists with expertise in patient-oriented research, infectious disease, informatics and economic evaluations. My long-term career goal is to become an independent researcher and lead in the development of cutting-edge evidence-based interventions that capitalize on the ubiquity of mobile technology to facilitate self-management of health, prevent disease, and that are suitable for the emerging economies of the world. As an educator, I want to prepare the next generation of nursing students and scientist to embrace innovative mobile tools in their own work to enhance or even redesign health care services and systems.

I have 10 years of experience as a critical care nurse providing direct patient care, which gives me expertise into the complexities of healthcare delivery in the US. Additionally, I have multiple extended global health experiences from volunteering in an indigenous clinic and rural communities in Ecuador and supporting Shriner's hospital in evaluating surgical candidates in Juarez, Mexico. As a doctoral student, I was involved in an ongoing participatory action-based research initiative in Ghana and completed a year of research experience in Argentina as an NIH Fogarty International Clinical Research Scholar. There I established ongoing research collaborations and gained insight into the ecosystem of Argentina's healthcare system, in particular, the National Tuberculosis (TB) Program. Returning to Argentina, I led a team of patients and TB experts to develop, pilot and evaluate TextTB, a patient-centered, theory guided, interactive mHealth intervention to support patients receiving TB treatment by self-administration (F31). Next steps will be to refine and optimize. I am currently working with a few students from the CIPCT program on projects towards this effort. I look forward to gaining further experience in patient-centered technologies, teaching in and working with more students in the CIPCT program.

Q: What courses do you typically teach in the CIPCT program?

I co-taught Nurs525 Managing Clinical Effectiveness within Care Systems with Carol Boston-Fleischhauer as the lead. I hope to become more involved in other courses such as Patient-centered technology.

Q: Would you tell us a little about your research interests?

My research interests include leveraging mobile technologies to provide patient support and point-of-care decision support for frontline health workers in low-resource settings globally and in the US focusing on underserved populations, including rural settings. I grew up on a farm in a rural setting and therefore can appreciate the various healthcare challenges. I would like to learn from individual patients how to meet their needs and provide support that is convenient to improve outcomes of treatment completion, particularly for individuals with active tuberculosis in settings where they receive treatment by self-administration and are sent home with a 1-2 month supply of drugs to

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manage on their own. I have also collaborated on research projects to support people living with HIV or those at high risk for acquiring HIV to mitigate risk behaviors. Currently, I am working towards adapting an image processing app to read and report drug metabolite presents to confirm treatment and to convert the texting intervention to a highbred mobile app with added functionalities.

Q: How do you see information technology impacting the health care ‘world’ in the near future?

Information technology is impacting settings in which access to clean water and electricity has yet to arrive. Mobile phones can be seen in nearly every setting globally and other sectors, such as business, has rapidly adapted to accommodate and maximize these tools (e.g., mobile money). Progress has been made in healthcare as well to provide reminders and information yet further evaluation of effectiveness of these tools and how best to scale and sustain their use in various settings is still needed.

Q: What can our students do to best position themselves for a career in informatics?

A: CIPCT students can best position themselves for a career in informatics by identifying the primary needs or gaps in optimal healthcare delivery in their work setting or area of interest and work to play an integral role in efforts to address them. By having a clearly identified problem one can focus their learning in the program to gain skills that will be practical and actionable in their environments. I see a broad range of potential application for which informatics can be applied to improve health delivery systems. Continuity of care for is a major issues where resources are limited and other priorities stretch systems capacities. Looking back on my time practicing in a hospital setting we were required to incorporate various systems (e.g., different software, pumps, other equipment) and were taught various work-arounds to manage with the inadequacies or ‘glitches’ in the systems. Electronic medical records have improved, but further can be done to improve workflow and minimize risk for medical errors that remains a leading cause of death in our healthcare systems.

Q: What advice would you give to a student enrolling in CIPCT this autumn?

A: Distance learning is different than traditional in-class learning but is just as rigorous and challenging. As any program, you generally get out of it what you put into it. If possible, seek out opportunities to work with others in your area of interest to gain experience working on a project. Start early thinking about your scholarly project as it is always amazing how fast the time goes. Also, recognize from that start that this is a great opportunity to gain new skills that you will apply in your professional career and as such it should not be easy. You should feel stretched, which is a good thing.

CIPCT Graduate Student Survey

We are currently conducting a survey of all UW Clinical Informatics and Patient-Centered Technologies graduates regarding their employment and career advancement after completing our program. Your responses will help to inform curriculum updates and revisions to the CIPCT program over the coming year.

To complete the survey, please review the e-mail that was sent in mid-June, or visit the link below. Always feel free to contact us at uwcipct@uw.edu or 866-931-1687 if you have any questions or concerns. We hope you’re doing well!

https://catalyst.uw.edu/webq/survey/pdi/335225
Kailey graduated from the UW CIPCT program in 2013. The CIPCT program inspired her to focus more on the “patient-centered” technology aspect of the Electronic Health Record. Soon after graduation, she started working at Valley Medical Center, where she currently manages their patient portal, MyChart.

“I decided to do the CIPCT program because I didn't have a medical or technical background, but had a passion for technology and finding ways to help engage patients in managing their own health care. The program definitely prepared me for my current position. Not only did it help me better understand the health care delivery system in general, it connected me with valuable resources that I still use to this day. It taught me how to work with people with different experiences and from different backgrounds, and how to research and stay up-to-date in this rapidly changing industry.

“This is an amazing opportunity, and you get as much as you put into it. I would encourage students entering the program to find ways to stay engaged, and connect and learn from your classmates and instructors as much as possible. Virtual learning can be difficult at times when you don't get face-to-face contact with your peers and instructors. When I was in the program, we made an effort to meet as a group in person as much as possible. Show you're interested, and put yourself out there. Take advantage of opportunities to volunteer and network inside and outside of the CIPCT program. You never know what you will learn, who you will meet, and where these opportunities will take you!”

"Creating Smarter, Safer Homes"

The work of CIPCT Director George Demiris was recently featured on the front page of the University of Washington website. The article delves into the integral part that modern technology can play in improving the safety and quality of life for seniors.

Read the article on the University of Washington home page: http://www.washington.edu/boundless/nursing-smart-home/
Lorelei Felipe

Physicians’ Perceived Impact of Copy and Paste

The purpose of my scholarly project was to assess physician perception on the implications of copy and paste through a survey. Regulatory agencies have issued statements and advisories on the practice of copy and pasting data within the electronic medical record to ensure the utmost quality data and documentation integrity. The end goal is to prevent fraud, waste, abuse and improper payments and to promote seamless and safe transition and continuity of care. At the time of my study, my organization did not have a policy and procedure on copy and paste and there were discussions around instituting an action plan to control the practice. I conducted my study with the aim to gain the hospital physicians’ perspective on what they believe are consequences of copy and paste as a necessary first step in developing an organizational action on a practice that has not been managed before.

I did an online survey and results showed that the prevalence of the use of documentation efficiency tools was widespread among the hospitalist physicians. Majority of respondents reported that copy and paste has promoted improvements in documentation, communication and patient safety. Some physicians recognized copied notes contained outdated and inconsistent information which can lead to confusion about the patient status or clinical course.

Through this scholarly project process, I found that conducting a survey is not as easy as it may seem. Recognizing how questions are framed and ordered can affect or lead how participants respond is one of the things I learned. In the end, I shared the results to the leadership team which found the data to be invaluable in identifying where to start the discussion with stakeholders.

Anke Hegbig-Prophet

Provider Perception of an Intimate Partner Violence Screening Tool for Women Living with HIV

My research interest concentrates on clinical workflow enhancement through technology. In particular, Clinical Decision Support Systems. My scholarly project focused on assessing clinician perception of a proposed protocol and clinical decision support (CDS) tool for Intimate Partner Violence (IPV) screening. The setting was a clinic serving Women living with HIV. The project was part of a

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Quality Improvement project to design an IPV screening tool embedded in the electronic medical record alongside a screening protocol that enhances workflow and ensures Quality Patient Care. My goal was to integrate clinician feedback and their perception of the CDS tool before its formal integration into the EMR to ensure successful adoption by clinical staff.

As anticipated, the results revealed challenges in the proposed IPV protocol and CDS tool which would affect workflow. Notably, my project also revealed inefficiency in screening processes, lack of clinician training in IPV screening and reporting requirements.

Subsequently, my project turned into a Quality Improvement Plan. The plan included workflow analysis and detailed Clinician Support requirements that would improve the quality of the services provided.

Keeping in mind that Health IT implementation often highlights unforeseen workflow inefficiencies, workflow analysis should always be the first step towards improving clinical services.

Samantha Schmidt & Kaitlin Henningsen

GetWellNetwork (GWN) Nursing Adoptions and Perceptions

For our CIPCT scholarly project we chose to evaluate perceptions and adoption of GetWellNetwork (GWN) at Legacy Salmon Creek Medical Center. GWN is a patient-centered technology platform that provides patients with both entertainment and healthcare education, offering movies, games, television, and video education content at the bedside through the use of a computer, mobile device, or television. It is currently being utilized at three of seven of Legacy Health System’s hospitals in the Portland, Oregon, metropolitan area because of its potential to positively impact care quality by promoting a partnership with patients to improve their accountability in maintaining their health and assisting the organization to meet regulatory standards for patient education.

We conducted semi-structured interviews and performed
qualitative analysis on the data derived from these interviews in order to make actionable and realistic recommendations for strategies to increase current GWN adoption rates, produce ideas for future enhancements, and inform strategies for future implementations of the system at Legacy’s other hospital sites, or even at other organizations implementing GWN. Our results led to six main themes being identified from the data collected: Insufficient training, time as a barrier, lack of comprehensive workflow integration, the need for visible leadership to drive sustained adoption, patient engagement, and the value of entertainment features. Based on these findings, we made recommendations based on four areas: training, GWN content, workflow integration, and leadership.

Our findings and recommendations were presented to Legacy’s nurse executive council, the GWN steering committee, and at each hospital site’s GWN steering meeting.

Sam’s takeaway: Conducting this scholarly project provided me with the opportunity to integrate scholarly research into practice by allowing me to apply research practices to a real-life project I am involved in at work. This helped me to further develop and refine my new role as a nurse informaticist and member of the GWN project team, using the findings from my research to support the guidance I provide for continued maintenance and future implementations of the system at our other hospital sites.

Kaitlin’s takeaway: Working on this scholarly project research has helped me inform the direction I take my work by thinking about the full picture of healthcare technology adoption. It has provided me perspective into comprehensive implementation styles and approaches and how best to engage organizations and end users in fully integrating new technologies into practice.

Emily Gasser & Victoria Johnson

Perception of Healthcare Technology Utilization and Its Effects on Nurse Satisfaction

Our scholarly project was a quantitative study of organizational healthcare information technology (HIT) utilization and its potential effects on nurses’ job satisfaction. Our goal was to determine how HIT might influence retention rates, patient outcomes, and healthcare costs. We utilized survey methods to assess nurse satisfaction factors, which would allow us to make recommendations to management at Harborview Medical Center’s (HMC) Neuro Intensive Care Unit (NICU). The fourteen-item survey covered demographics, job satisfaction, HIT utilization, user-friendliness of the HIT, and satisfaction with HIT.
The Barriers and User Experience of Patient Portal among Older Adults: A Systematic Review

It was not my first time to hear “patient portal” before I became a CiPCT student. However, a “patient portal” can help patients more than I thought, and even the elderly can benefit from utilizing this tool to manage their health. I was extremely excited to work with Dr. Lober and Dr. Thompson on this project. The topic of my project is “The Barriers and User Experience of Patient Portal among Older Adults: A Systematic Review.” Yes, it is important to understand and explore the reasons why this population prefers or refuses to use a “patient portal.”

Based on the synthesis of the literature, issues can be categorized into the following four topics: patient portal device & usage preference, patient portal entry barriers for older adults, a patient portals’ poor usability for older adults, and portal design recommendations. For the first topic, evidence shows that the elderly prefer to use a computer over a laptop or smartphone/tablet. Also, the top two patient portal’s features that senior participants prefer to use includes sending a text to primary care providers and viewing lab results.

Per the evidence, the top reasons for the portal’s entry barriers are “lack of electronic devices or Internet” and “poor computer and internet skills.” When exploring the behavior regarding the poor usability of patient portal, we found that seniors are generally unfamiliar with medical language that has been used in patient portals, and their misconception of the portal’s health information. This scholarly project also includes literature regarding portal design recommendations, even though the studies in this area are limited.
However, the patient portal’s interface design is one of the most essential topics for future research, because the population is growing and aging. If the patient portal is one of the tools that can help to reduce general medical costs and provide better preventive care, we need to devote more resources to it.

Systematic review is not an easy job. When searching for papers through different databases, it is easy to miss “related” papers. The lesson that I learned in this scholarly project is to ask as many people as you can to review your “search methods”. This is important because one tiny error can influence the results so much. All in all, it was a great experience to work with both professors. I am looking forward to doing related research in the future.

Shazia Allibhai

Proficient and Pleased: How Physician Efficiency Using an EHR Relates to Overall Job Satisfaction

My study examines the relationship between physicians’ EHR efficiency and overall satisfaction with their current practice of medicine. The study was conducted at a small medical center in the Pacific Northwest, where physicians use Epic as an electronic health record (EHR) for patient care and documentation. From physicians’ use of Epic, the organization generated an efficiency report within the software, for which 105 physicians received an efficiency score. As most clinical documentation and communication takes place electronically, technology is an important factor that can affect both a physician’s efficiency and overall job satisfaction. Of these physicians, 91 also participated in a survey to gauge overall satisfaction of their current practice of medicine. Improving potential areas of dissatisfaction would aim to improve overall physician satisfaction, and expectantly physician retention.

Survey results revealed statistically insignificant correlations between variables. These low correlations suggest that physicians’ satisfaction in their practice of medicine is of far greater complexity than what these few variables were able to study. At this medical center, however, the mean years of employment among surveyed providers is just above 10 years, which may itself be a measure of satisfaction.


CONGRATULATIONS JAIME!

CIPCT Operations Director Jaime Jenkins gave birth to her third child in December, a 7 lbs, 12 oz, 19.5 inch baby boy named Lucas Frank Jenkins. Jamie has decided to leave her role with the CIPCT program in order to spend more time raising her family. Jaime has overseen CIPCT operations for 10 years, advancing and improving the program and providing integral support for our students, faculty and administration. Her invaluable contribution to the CIPCT program will be missed. Thank you Jaime!

DR. HILAIRE THOMPSON FEATURED ON NBC KING 5 NEWS

CIPCT faculty member Hilaire Thompson recently appeared on NBC King 5 Evening News in a segment featuring the use of interactive technology to retrain the brains of elderly patients in order to reduce likelihood of falling down. The UW School of Nursing’s research study examining brain injury associated with falls is part of a $250,000 grant from the National Institute for Nursing.


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