

Master of Public Health Program

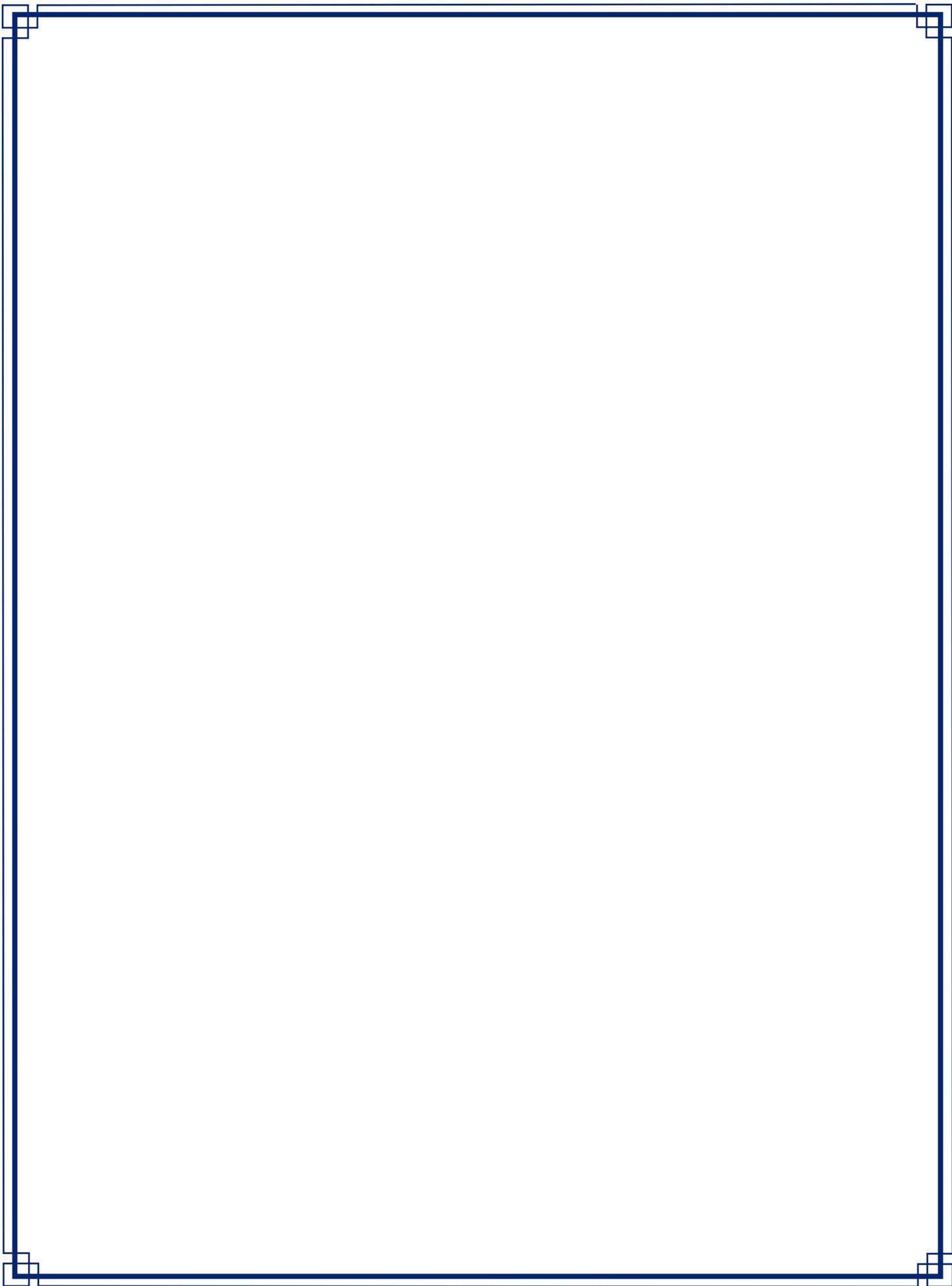
Perelman School of Medicine
University of Pennsylvania



Capstone Presentation Program

Summer 2016

University of Pennsylvania



Friday, August 5, 2016

Biomedical Research Building II/III, Room 253

9:30 am

Michael Lydon

Mentors: Oana Tomescu, MD, PhD & Dominique Ruggieri, PhD

A Quality Improvement Project for a Residency Wellness Program: Reducing Burnout for Internal Medicine (IM) Interns Through Resiliency and Mindfulness Training

Abstract:

Burnout is an ongoing issue in the medical community that has been associated with physicians leaving the medical field, committing suicide, or committing medical errors. To give future physicians the skills to prevent burnout, Penn's Internal Medicine (IM) residency program internship year included a mindfulness-based wellness pilot program. This capstone project was conducted to examine the efficacy of the program and to make recommendations for future iterations of the wellness program for upcoming medical interns. A report was generated to disseminate findings from a literature review that examined similar programs and to conduct statistical analyses of surveys completed by the IM interns who participated in the program in order to make recommendations for program improvements. Survey analyses showed that burnout remained at moderate levels throughout the internship year and that interns reported higher utilization of primary care for themselves. Additionally, there was correlation between burnout, mindfulness, marital status, and resilience, although it was not consistent through each of the three time-points. Further development of the project will require the use of a newly-identified control group and the incorporation of qualitative methods.

Michael Lydon is a US Army veteran who served a tour in Iraq before obtaining his Biology degree from Gwynedd-Mercy University in 2014. He worked as an industrial hygienist while in the Master of Public Health Program. Upon completing the program, Michael will accept a commission as a US Army officer and continue to work in the field of public health.

10:00 am

Shadiya Moss

Mentor: Lorraine T. Dean, ScD

Stress and cognition among long-term breast cancer survivors: The impact of social and economic factors

Abstract:

There are over 2.9 million breast cancer survivors, resulting from advances in screening, early detection, and treatment options. Many of these survivors suffer decreased quality of life. Stress and impaired cognitive ability, which are common among survivors, have been identified as likely factors in poorer quality of life. Additional research is needed to understand the risk factors for stress and impaired cognitive ability among long-term survivors. This project examines the impact of individual- and socioeconomic-level factors on cognitive ability and perceived stress among long-term breast cancer survivors. Cognitive ability and perceived stress were reported using the PROMIS Cognitive Abilities Scale and Perceived Stress Scale, respectively, among a sample of long-term breast cancer survivors (N = 121). Socio-demographic and economic factors were also reported. Thirty-six percent of survivors reported low cognitive ability. The average perceived stress score was high (M = 19.8). Lower cognitive ability was associated with overall health [odds ratio (OR) = 0.47, p = 0.009], change in partner's income (OR = 7.46, p = 0.022), borrowing money (OR = 6.09, p = 0.003), change in economic lifestyle (OR = 8.09, p < 0.001) and comorbid conditions (OR = 1.80, p = 0.002). Perceived stress was associated with change in economic lifestyle (b = 1.95, p = 0.011) and comorbid conditions (b = 0.47, p = 0.046). The primary findings from this study show that there are a number of factors, both individual and socioeconomic, which represent protective and risk factors for low cognitive ability and perceived stress among long-term breast cancer survivors.

Shadiya Moss graduated from Drexel University in 2011 with a Bachelor of Science in Psychology and will earn her Master of Public Health this summer. She is interested in the field of psychiatric epidemiology, specifically reducing mental health-related disparities and improving mental health service utilization among African Americans experiencing a serious mental illness. Shadiya will be pursuing a PhD in Epidemiology with a focus on psychiatric and neurological epidemiology at Columbia University this fall.

10:30 am

Ebony Easley

Mentor: Peter Cronholm, MD

Association between conventional and community-level Adverse Childhood Experiences (ACEs) and reproductive health outcomes in Philadelphia

Abstract:

The 1998 Adverse Childhood Experiences (ACE) Study was the first to highlight the significant association between traumatic stress during childhood and negative adult health outcomes. Since then, researchers have increasingly turned their attention not only to identifying different types of adversity, but also to understanding the wide range of negative health outcomes and behaviors that might be associated with them. In recent years, reproductive health, which is a major determinant of maternal and child wellness, has emerged as an important topic in ACEs literature. Studies using the original ACE measures and other related measures of childhood trauma have found a dose-response relationship between childhood trauma and reproductive health risks like STI and adolescent pregnancy. However, these studies have not included urban populations nor have they explored adversity outside of the home. The present study is a secondary analysis of data collected by the Public Health Management Corporation (PHMC) during the Philadelphia Urban ACE Survey (PUAS) completed in 2013, which included a more diverse sample and explored Conventional ACEs and Expanded ACEs. Expanded ACEs consist of five neighborhood and community-level forms of adversity: witnessing violence, living in an unsafe neighborhood, feeling discrimination, being bullied, and living in foster care. The purpose of this study is to examine the relationship between the Expanded ACEs and reproductive health risks of adolescent pregnancy and STI diagnosis. Study data from 1,784 Philadelphia adults age 18 and older are analyzed.

Ebony Easley is a Senior Research Coordinator at the Mixed Methods Research Lab at the University of Pennsylvania. Ebony was the first student to submatriculate into the Master of Public Health Program while completing her Bachelors of Art in Medical Anthropology. Ebony will complete her MPH in December and continue to work in Family Medicine and Community Health research.

11:15 am

Divya Joseph

Mentors: Frances Barg, PhD and Sean Hennessy, PharmD, PhD

A qualitative study of treatment burden in older adults with multiple chronic conditions

Abstract:

The illness experience of living with a chronic condition has been previously studied. However, no studies have looked at how the elderly manage complex chronic comorbidities, including care coordination, education, self-empowerment and shared decision making. The aim of this pilot study was to gain an understanding of the treatment burden in older adults with multiple chronic conditions. We conducted a qualitative study using 25 semi-structured interviews with English-speaking older adults with medical diagnosis of multiple chronic conditions. Interviews were audiotaped, transcribed verbatim, and analyzed using an integrated approach to data analysis. Differences in coding were resolved by consensus. Three primary themes about the treatment burden in this population emerged: 1) complex illness management involves change, self-empowerment, and adherence; 2) ongoing and high quality communication between providers and patients is essential to effective coordination of care; and 3) the patient's environment and social support system can facilitate or disrupt illness management. A multifaceted approach is needed to help older adults effectively manage their treatment burden. Patient identified outcomes in this study involved an understanding of their disease process, a seamless provider-patient relationship, provider awareness of treatment burden, and accessibility of community resources.

Divya Joseph graduated from Temple University in 2011 with a Doctorate in Pharmacy and currently works for Walgreens as a retail pharmacist. Her interests lie in epidemiology, pharmacotherapy and antimicrobial stewardship. In pursuing her MPH degree, she is committed to applying the knowledge and skills of her public health training along with her background in pharmacy for health promotion, disease prevention, and medication safety interventions in the health care system.

11:45 am

Jasmine Jones

Mentor: Carol McLaughlin, MD, MPH

An organizational needs assessment for HIV/AIDS peer educators in Botswana: Identifying challenges and addressing opportunities for improved community outreach

Abstract:

Commercial sex workers (CSWs) in Botswana are among the highest at-risk groups for contracting and transmitting HIV/AIDS, yet only half of CSWs have been reached by HIV prevention services. Utilizing peer educators is a proven strategy to reach sex workers and deliver targeted HIV/AIDS education and prevention services; however, their effectiveness in the field is limited by management and supervision practices. Organizations sometimes struggle to ensure that peer educators are equipped, motivated, and incentivized to perform community outreach essential to realizing public health goals. This project aimed to understand the operational needs of a peer education organization that works to reduce HIV incidence among female sex workers in Botswana. Qualitative interviews and observational field notes were conducted to inform a situation analysis to understand the organization's operations and management processes. The strengths, weaknesses, opportunities, and threats impacting the organization's peer-to-peer community outreach efforts were also evaluated. Peer educators' levels of performance and productivity varied due to limited understanding of job responsibilities and expectations. Collaborative feedback from peer educators and staff informed the design of a peer educator handbook that addressed management challenges and outlined organizational policies to enhance the performance and effectiveness of peer educators in community outreach.

Jasmine Jones will earn her Master of Public Health with a concentration in Global Health. She holds a Bachelor's degree in International Studies from American University. Prior to coming to Penn, she worked as a human resources director for the American University of Nigeria. Jasmine is currently employed as a Research Assistant with the Penn Center for Community Health Workers. She plans to use her MPH to contribute to international development and health systems strengthening initiatives in sub-Saharan Africa.

12:15 pm

Alejandra Paniagua Avila

Mentor: Frances Barg, PhD

Improving diabetes management in an indigenous Tz'utujil community of Guatemala: Patients' views on social, emotional, and physical factors of life with diabetes

Abstract:

The global burden of type 2 diabetes mellitus is increasing steadily. Populations that are undergoing urbanization in low- and middle-income countries, such as Santiago Atitlan, Guatemala are particularly affected. Recognizing the physical, emotional and social implications of diabetes is essential to achieving patient-centered care and improving diabetes-related outcomes. This study describes the patients' experience of living with diabetes in Santiago Atitlan, an under-resourced, indigenous Tz'utujil community. The participants were 24 adults living with diabetes, older than 18 years, contacted through local healthcare facilities by purposive sampling. Open-ended, in-depth interviews constituted the qualitative methodology. The interview guide was used to explore the participants' views around the diabetes onset and the influence of diabetes on physical, social and emotional factors. Interviews were conducted in Spanish or Tz'utujil. A multi-disciplinary team conducted content analysis of the interview transcripts. Participants describe diabetes as a "life-changing" disease. While social support enhances healthcare seeking behavior, financial limitations constitute a barrier for regular diabetes treatment. Self-care activities and lifestyle changes related to food are a source of emotional burden. The experience of living with diabetes is characterized by uncertainty and limited self-efficacy around diabetes management. Cultural and historical characteristics of Santiago Atitlan influence patients' perspectives around diabetes. These results will inform an existing diabetes educational program and guide patient-provider communication.

Alejandra Paniagua is a Guatemalan who graduated from medical school in 2016. She is a Fogarty International Center Trainee. After graduating from the Master of Public Health Program she will return to Guatemala to design and implement a community preventative health program at one of the rural areas of Guatemala.

1:30 pm

Janaiya Reason

Mentor: Bridgett Brawner, PhD

Provider-level factors that influence sexual health assessment and intervention in mental health treatment: A mixed methods approach

Abstract:

Sexual health is an integral component of overall wellbeing, yet sexual health assessments and interventions are limited in mental health treatment. This study was aimed at developing a better understanding of provider-level factors that influence sexual health assessment and intervention in outpatient mental health settings. A convenience sample of outpatient mental health providers was selected among community based mental health organizations and private practices in Philadelphia, Pennsylvania. Of those providers, clinicians who actively engaged in mental health treatment were recruited to complete a web-based survey (n = 50). A subsample also participated in a 1-hour in-depth interview (n = 5). The intent was to explore barriers and facilitators for providers to integrate sexual health discussions into mental health treatment. Preliminary findings indicate that providers are more likely to engage in sexual health discussions with clients of the same race and gender. Even when providers do not make a race or gender connection with the client, they still actively engaged in sexual health discussions, but only if clients initiated the conversation. Providers who had positive attitudes towards sexual behaviors and who worked at agencies that offered sexual health programming were more likely to engage in sexual health discussions with clients. Additional research is needed to identify factors associated with delivery of sexual health information in mental health settings. These findings have the potential to guide the development of clinical guidelines, as well as provider-level interventions to promote the integration of sexual and mental health despite racial or gender barriers.

Janaiya Reason will complete her Master of Public Health this summer. She received her bachelor's degree in Public Health from Temple University in 2011 and currently works in the Family & Community Health department in the School of Nursing developing an HIV/STI risk reduction intervention for adolescents. Janaiya's primary interests include infectious diseases, sexual health education, and program planning. After graduating from Penn, she plans to continue working under the supervision of Dr. Brawner and applying to nursing school.

2:00 pm

Gabriela Harris

Mentor: Dominique Ruggieri, PhD

“Living with endometriosis” in the digital age: A content analysis of YouTube illness narratives

Abstract:

Social networking sites such as YouTube have a high daily viewership and can serve as a rich data source for health communication researchers. Yet to date few public health researchers have used social media to explore messages about health and health issues. Drawing on existing literature about the impact of chronic illness, this project conducted a content analysis of YouTube videos created by endometriosis patients. Current qualitative research on the subject has shown that endometriosis can have a devastating impact on the quality of women's lives. A review of previous related qualitative research revealed that typical themes to materialize from interviews and focus groups with endometriosis patients include: delayed diagnosis and treatment, impact on relationships and sex life, overall pain, self-esteem, confusion and lack of information, and fear of reoccurrence. The aim of this work was to explore how social media is being used to share illness narratives among the endometriosis patient population in order to understand both how the patient population is doing and whether the content found on social media aligns with more traditional sources of qualitative research. YouTube was searched with the phrase “Living with Endometriosis” using the built-in search function on YouTube.com. In line with previous research, the YouTube videos were sorted by descending view count, transcribed, and analyzed for content (n=30). This work is an exploratory effort to lay groundwork for future research utilizing social networking sites.

After receiving her bachelor's degree in Fiction Writing and Health & Society from Sarah Lawrence College, Gabriela Harris found a way to merge her two disparate interests by pursuing a Master of Public Health with a specialized attention to health communications. Gia currently works in health content marketing and plans to continue to work in digital health communications after completing her degree this fall.

2:30 pm

Stephen Watkins

Mentor: Marilyn Howarth, MD

**A comparative review of air pollution mitigation measures in ports across the U.S.:
Recommendations for the Port of Philadelphia**

Abstract:

As major industrial centers, seaports serve as vital sources of economic activity for many coastal cities. They also represent major sources of environmental air pollution, negatively impacting air quality and health of adjacent communities. Increased global trade, combined with the expansion of the Panama Canal and port enlargement, is expected to lead to increased activity at many of the United States' eastern seaports over the next two decades. A thicket of regulatory measures and voluntary partnerships aim to decrease harmful emissions from harbored ships and transport trucks. These laws and agreements differ around the country, relying in varying degrees on collaboration between local authorities, federal agencies, and environmental non-governmental organizations. The aim of this project was to identify those best practices that could be utilized at the Port of Philadelphia in order to curb air pollution and help improve the city's air quality. The findings are based on a review of published and grey literature.

Steve Watkins comes to Penn's Master of Public Health Program on hiatus from his position with the Office of Science Policy within the Environmental Protection Agency. At the EPA, Steve primarily works on regulations related to chemical safety and other environmental health issues. Previously Steve worked for a nonpartisan, science and technology briefing series on Capitol Hill and the nonprofit Center for Science in the Public Interest in Washington, DC. He plans to complete his MPH next spring and subsequently return to the government. Steve has a Bachelor of Arts in Biology from Grinnell College and a Master of Public Policy from Georgetown University.

3:15 pm

Alicia O'Rourke

Mentor: Rosemary Frasso, PhD, MsC

**Diabetic Alert Dogs:
A Qualitative Study Assessing the Perceived Impact on Owner Quality of Life**

Abstract:

Approximately ten percent of Americans are living with diabetes, a chronic and sometimes debilitating disease. Increasingly animals, in particular dogs, are being trained to detect and alert to fluctuating blood glucose levels. The goal of this study is to assess the perceived impact of Diabetic Alert Dogs (DAD) on owner quality of life. Participants for this study consisted of adults with type-1 diabetes (n=5). In-depth interviews were conducted employing a photo-elicitation technique. The interviews were transcribed, coded, and arranged into thematic categories for analysis using NVIVO 11 software. The reliability of the coded data was assessed using inter-coder agreement practices. Consistent with a modified ecological model, we identified thematic categories in three levels – individual, relationship, and societal – that reflect the ways in which Diabetic Alert Dogs impact owner quality of life. Individual level factors include disease management, protection, independence, and physical activity. Relationship level factors include emotional impact and public interaction. Societal aspects of DAD ownership include public access and economic impact. While participants generally perceive DADs to have a positive impact on quality of life, results suggest that there is a need to further educate the public about service dogs and their purpose. Despite federal guidelines designed to assist people using service animals, DAD owners still face challenges accessing and navigating public spaces.

Ali O'Rourke has been the Orthopedic Nurse Coordinator at the University of Pennsylvania Veterinary Hospital for the past 5 years. She graduated with a bachelor's degree from Penn State University and currently is pursuing her Master of Public Health degree with a focus on the impact of animals on society and human health. When Ali graduates, she plans to continue to work for the University with the possibility of attending veterinary school in the future.

3:45 pm

Natalie Stollon

Mentor: Heather Klusaritz, PhD

**Understanding the effects of compound risk:
Healthcare access for low-income minority young adults with disabilities**

Abstract:

Young adults present unique challenges to healthcare providers and to our healthcare system. Although attaining age eighteen confers adult status for the purposes of privacy laws and medical decision-making, young adults often have difficulty planning and coordinating their own healthcare. They also have lower rates of health insurance and receive primary care less often than those in other age groups. Young adults with disabilities or from historically disadvantaged groups face an additional set of challenges. Individuals from these groups receive preventative care at a lower rate than their peers. This study examines the patterns of healthcare access of young adults at compound risk, who are low-income, have a disability, and are of minority race and/or ethnicity. We conducted a cross-sectional, secondary data analysis using the 2014 Behavioral Risk Surveillance Survey (BRFSS) data and compared young adults at compound risk to their peers on five key indicators of healthcare access: (1) having someone they consider their personal doctor, (2) whether they were unable to get care because of cost, (3) length of time since doctor visit, (4) length of time since dentist visit, and (5) delay in getting care. This study is one of the first to examine healthcare access for a population experiencing compound risks. The findings will have important implications for the development and implementation of public health interventions for this underserved and understudied population.

Natalie Stollon received her Master of Social Work from Penn in 2013. Since then, she has worked at The Children's Hospital of Philadelphia with adolescents and young adults with disabilities and chronic illnesses. She is very interested in the impact of health disparities and social determinants of health on disease self-management and the successful transition to adulthood for this population. In a few weeks Natalie will move to Seattle to begin a PhD in Social Welfare at the University of Washington.

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