

RESEARCH & PRACTICE DAY 2023

PhD 3-Minute-Thesis Competition

Friday, November 24, 2023 | 12:30pm-2:00pm | MSB3278

12PM Lunch & Opening

3:00PM Awards & Closing Remarks

12:30 Welcome/Opening Remarks

Lauren Tailor (PhD Epidemiology)

Tiny Hearts, Big Questions: Examining the Link Between Antidepressants in Pregnancy and Maternal and Child Cardiometabolic Outcomes

Claire Cook (PhD Epidemiology)

Periods of time: early period, later disease?

Snigdha Velugu (PhD Social & Behavioural Health Sciences)

Uncovering Menstrual Experiences of Slum-dwelling Menstruators in Hyderabad, India

Alessandra Andreacchi (PhD Epidemiology)

Inspirits of Change: Uncovering Trends in Canadian Alcohol Use

Myrtha Elvia Reyna Vargas (PhD Epidemiology)

Making it Personal: What are we missing when treating childhood asthma?

Sterling Stutz (PhD Social & Behavioural Health Sciences)

Building a Foundation for Allyship: Jewish Community Wellbeing & Relationships with Indigenous Nations in Southern Ontario

Jessica Bytautas (PhD Social & Behavioural Health Sciences)

Things Living and Left Behind: An Ethnographic Study of Legacy Activities in End-of-Life Care

Closing Remarks

Lauren Tailor

(PhD Epidemiology)

Tiny Hearts, Big Questions: Examining the Link Between Antidepressants in Pregnancy and Maternal and Child Cardiometabolic Outcomes

Key Words: Perinatal and Pediatric Epidemiology, Pharmacoepidemiology, Women's Health, Maternal and Child Health, Mental Health
Abstract:

Background: Approximately 20% of pregnant females experience common mental health disorders, such as anxiety or depression, during pregnancy. Prenatal exposure to antidepressants has been associated with an increased risk of complications (e.g., spontaneous abortions, gestational diabetes). However, untreated prenatal mental illness can negatively impact both fetal and maternal health, highlighting the importance of maintaining antidepressant treatment during pregnancy. Research on prenatal antidepressant use has focused on birth or neurodevelopmental child outcomes, with less research focused on later childhood cardiometabolic outcomes. Given the lack of robust epidemiological data on the long-term impacts of prenatal antidepressant medication use, I will lead a population-based study examining the association between prenatal antidepressant medication use and cardiometabolic outcomes among mothers and offspring.

Objectives and Methods: Using Danish administrative health data, I aim to examine the association between prenatal antidepressants and the incidence of maternal and childhood cardiometabolic conditions among singleton, live-born offspring born between April 1st, 1997 and March 31st, 2018 (with a follow-up to March 31st, 2022) and their mothers in Denmark.

My specific objectives are to:

- 1) To describe patterns and trends in prenatal antidepressant use among pregnant women in Denmark between April 1st, 1997 and March 31st, 2018 according to sociodemographic, medical, and obstetric factors and by antidepressant class, dose, and timing of initiation.
- 2) To estimate the association between prenatal antidepressant exposure and the incidence of maternal cardiometabolic outcomes during pregnancy (gestational hypertension, gestational diabetes) among Danish women of reproductive age between April 1st, 1997 and March 31st, 2018.
- 3) To compare the risk of cardiometabolic conditions (T2DM, hypertension, dyslipidemia, obesity) among offspring (aged 2-25 years) who were born to mothers who used versus did not use antidepressants in pregnancy.

Impacts: This study will enhance researcher and clinician understanding of prenatal antidepressant use on cardiometabolic risk in mothers and offspring and contribute to prenatal mental health recommendations.

Claire Cook

(PhD Epidemiology)

Periods of time: early period, later disease?

Key Words: Obesity, Women's Health, Aging

Abstract:

Objective: To describe differences in visceral adipose tissue (VAT), subcutaneous adipose tissue (SAT), total body fat, and anthropometric measures according to reproductive health history among postmenopausal women in the Women's Health Initiative (WHI).

Methods: We examined reproductive health history (collected at baseline) and abdominal adipose tissue with the WHI body composition sub-study. Adipose tissue measures included Dual Energy X-ray Absorptiometry (DXA) and anthropometric measures. Descriptive analyses and multivariable linear regression models were conducted.

Results: Among 10184 participants, most (69%) had completed high school, were married (62%), had a household income < \$75,000 (57%), mean age 62.4 years (± 7.4), and were never smokers (55%). Women who had early menarche (< 9 years) or early menopause (< 40 years) had greater adipose tissue levels. There was a dose-response relationship between parity and adiposity and no marked differences related to infertility and adiposity, apart from infertility specific to hormone dysregulation. Multivariable linear regression models demonstrate increased adiposity among women with early menarche; compared to those with age at menarche ≤ 10 years, those with age at 11, 12, 13, or 14 years had -5.87, 15.1, 21.8, and 23.3 cm² less VAT.

Conclusion: Among postmenopausal women, those with an earlier age at menarche, earlier age at menopause, greater parity, and shorter reproductive lifespan had increased levels of one or more of VAT, SAT, total body fat, and BMI. Reproductive health history is a

presently untapped opportunity for chronic disease screening, identification, and prevention of chronic disease unique to postmenopausal women. As the Canadian population ages and accumulates chronic disease, an improved understanding of reproductive health and metabolic outcomes is critical to address changing demographic characteristics and health system needs. Further investigation of reproductive health risk factors and chronic disease outcomes among postmenopausal women would thus help prevent accumulation of chronic disease and promote healthy aging.

Snigdha Velugu

(PhD Social & Behavioural Health Sciences)

Uncovering Menstrual Experiences of Slum-dwelling Menstruators in Hyderabad, India

Key Words: Food and Nutrition, Mental Health and Addictions, Non-Communicable Diseases

Abstract: In India, menstrual experiences are shaped by a combination of deep-rooted cultural norms and emergent socio-political discourse, capturing a spectrum from taboos and stigmas to empowerment and the quest for bodily autonomy and agency. Beyond this complex menstrual narrative, several other factors shape the menstrual experiences of menstruators living in India's slums. These include spatial congestion, financial uncertainty, concerns about personal safety, communal tensions, and limited water resources. By 2050, urbanization is expected to raise global slum populations six-fold and double India's. The rapid urbanization in India is straining the government's capacity to provide basic amenities like housing, sanitation, electricity, and water. This significantly affects the ability of menstruators in the slums to tend to their bodies with comfort, confidence, and safety. Menstruation is not merely a matter of hygiene and dignity. It's also a social determinant of sexual and reproductive health and rights, influencing vital life events that determine the overall health and well-being of menstruators. Rooted in the lived experiences of menstruators, my proposed research aims to uncover the multifaceted influences on menstrual experiences in Hyderabad's slums. Guided by biopolitics and poststructuralist feminism, I will take a critical-participatory approach to identify and unpack the factors that shape the menstrual experiences of slum-dwelling menstruators. The novelty of my study is predicated on the use of a multi-method critical qualitative study design that integrates participatory and arts-based methodologies into critical ethnography using complete-the-story, a participatory interview strategy and digital storytelling. My study's findings will (1) highlight the sociocultural, socio-political and geographical factors affecting menstruator's health and their bodily autonomy and agency and (2) inform future menstrual hygiene management strategies implemented by India's state and national government, NGOs, and academics, ensuring they account for the contextual needs of menstruators when crafting policies and programs.

Alessandra Andreacchi

(PhD Epidemiology)

3MT: Inspirts of Change: Uncovering Trends in Canadian Alcohol Use

Key Words: Chronic Disease, Food and Nutrition, Mental Health and Addictions

Abstract: In my dissertation research, I uncover the intricate landscape of Canadian alcohol use, leveraging over two decades of national health survey data. While overall trends in alcohol use appear stable, a closer examination within specific subgroups defined by gender and age reveals compelling shifts. Traditionally, men have greater rates of alcohol use than women. However, trends have been converging by gender driven by increases among women and decreases among men in certain age groups. These dynamic changes are multifaceted and may reflect shifts in traditional gender norms surrounding alcohol use, challenging conventional patterns. This nuanced understanding gained by uncovering trends by gender and age offers valuable insights into the evolving dynamics of alcohol use in Canada. These insights play a pivotal role in guiding efforts aimed at ensuring the well-being of all Canadians. Recognizing and comprehending these subtle yet significant changes pave the way for informed public health policies tailored to the diverse needs of different demographics.

Myrtha Elvia Reyna Vargas

(PhD Epidemiology)

Making it Personal: What are we missing when treating childhood asthma?

Key Words: Chronic Disease, Non-Communicable Diseases

Abstract: Asthma is the most common chronic disease among children in Canada. It causes poor quality of life and increased health care expenditure predominantly in preschool children, who suffer from a disproportionate burden compared to their school-aged counterparts. Asthma manifests in similar clinical symptoms across children, but it is caused by different underlying biologic pathways (endotypes), making it challenging for clinicians to decide upon the ideal treatment for each patient. Recent advances in precision health have focused on informing targeted medications by discriminating asthma endotypes based on biomarkers such as blood eosinophils. These efforts have uncovered treatments effective only in asthmatics with T2 multi-allergen sensitization. Other biomarkers such as bacteria and viruses in the nose, lung function, and growth hold great potential for informing non-atopic asthma treatment, but there is a paucity of studies focusing on the preschool population. My PhD project aims to improve our understanding of preschool asthma endotypes and thereby inform targeted individualized therapeutic approaches. To achieve this, I will analyze which biomarkers differentiate asthma endotypes in preschool children and I will design a clinical trial to evaluate which medication works best for each endotype.

Sterling Stutz

(PhD Social & Behavioural Health Sciences)

Building a Foundation for Allyship: Jewish Community Wellbeing & Relationships with Indigenous Nations in Southern Ontario

Key Words: Social Determinants of Health, Community Health, Jewish Health

Abstract: Using a framework of epistemic injustice grounded in Jewish diaspora theory and Indigenous ways of knowing, this doctoral project proposes to develop an Indigenous cultural safety training to reach Jewish community leaders to support intergenerational healing and the work of reconciliation within the Toronto Jewish community. Judaism as a culture and religion puts a strong emphasis on pursuing justice and repairing inequities; however, intergenerational trauma including exiles and the Holocaust act as a barrier for many Jewish peoples to understand and accept their status as ‘guests’ and/or ‘settlers’ on Indigenous lands. This acknowledge of precarity is required by many Indigenous perspectives, in order for guests to be in good relationships under treaty. The theoretical framework of epistemic injustice allows us to understand these two groups as experiencing hermeneutical injustice whereby one group cannot comprehend the experiences and perspectives of the other. I propose to develop a cultural safety training specific to working with Indigenous communities and developed from a place of Jewish pedagogical perspectives and traditional teachings that meets Jewish communities where they are at in their own learning journeys, is trauma-informed, and supports these community leaders to continue this work in their communities. This development will be done in relationship with both Indigenous Elders and Toronto Rabbi’s and other Jewish spiritual leaders. This training program, and ensuing evaluation, will demonstrate not only how to begin to broach this hermeneutical divide but I also suspect it will allow me to begin to identify nuanced concerns that Jewish communities experience regarding antisemitism, assimilation, and reconciliation.

Jessica Bytautas

(PhD Social & Behavioural Health Sciences)

Things Living and Left Behind: An Ethnographic Study of Legacy Activities in End-of-Life Care

Key Words: Marginalized Populations, Social Theory, End-of-life Care

Abstract: This paper explores “legacy activities” (i.e., creative works produced by a person at the end of life), in the context of a community-based hospice palliative care organization in Toronto, Ontario. Legacy work consists of inviting terminally ill patients to reflect on their lives, what matters most to them, and how they wish to be remembered. In response to calls for an alternative to the medicalization of suffering, legacy activities are increasingly advocated in both medical and commercial practices for their relational approach to death and dying. While research suggests that legacy participation may have a strong psychotherapeutic benefit, less attention has been given to questions of access and equity including who is able to participate and with what resources. Drawing on insights from new materialisms theory and ethnographic methods, I present key findings from my analysis of 50 interviews with hospice palliative care clients (n=13), volunteers (n=17), staff (n=7), and death care and industry professionals (n=13), and approximately 60 hours of participant observation. Findings explore what legacy means for people who are dying and the volunteers who care for them, the ways in which volunteers shape and are shaped by legacy activities, and how legacy activities resist, reinforce, and revise prevailing assumptions about death and dying. I discuss how these findings can engage and inform hospice palliative care policy and programming, to best support and enable client-volunteer relationships that foster participation in meaningful legacy activities at the end of life.