

Participants self-identified as Black or White completed the Childhood Trauma Questionnaire (CTQ) which assesses 5 types of CT: emotional abuse, physical abuse, sexual abuse, physical neglect, and emotional neglect, and were classified into 3 CT groups: no trauma, 1 type of trauma, and 2+ types of trauma endorsed. RESULTS/ANTICIPATED RESULTS: For Black participants (N = 583), 21.6% experienced no trauma, 21% experienced 1 type, and 57.4% experienced 2 or more types, with the most common being physical abuse and emotional neglect. For White participants (N = 569), 32.1% experienced no trauma, 20.6% experienced 1 type, and 47.3% experienced 2 or more types, with the most common being emotional neglect and emotional abuse. There were significant associations between CT groups, TLFB, and AUDIT measures. For Black participants, AUDIT-Harm and AUDIT Total were significantly different across the 3 CT groups (all p values <0.05). For White participants, Heavy Drinking Days was significantly different across the 3 CT groups (p = 0.028), with trends for AUDIT-Harm (p = 0.061) and AUDIT-Dependence (p < 0.065). DISCUSSION/SIGNIFICANCE OF IMPACT: In individuals with AUD, there were significant positive associations between the number of CT categories endorsed and alcohol use across race, suggesting a cumulative effect of CT on risky alcohol use. Future work includes exploring personality and behavioral mediators of the relationship between cumulative trauma load and drinking.

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Developing a predictive tool to detect peripheral artery disease (PAD): Examining patient-reported symptoms in ischemic versus non-ischemic conditions (PREDICT PAD)*

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OBJECTIVES/GOALS: Objectives: The study goal is to identify discriminating symptom characteristics of PAD versus non-ischemic conditions to improve recognition. Just as nausea, back, and jaw pain were once thought to be unrelated to myocardial infarction and coronary artery disease, patient-reported symptoms of PAD are frequently overlooked as being a sign of PAD. METHODS/STUDY POPULATION: Methods: Using a prospective de novo population-based cross-sectional design we will link symptom descriptors to PAD disease status using diagnostic testing in individuals who report lower extremity or buttock symptoms (n = 100). Symptom descriptors will be obtained via questionnaires and structured interviews will be completed pre and post physical function tests. Using near infrared spectroscopy, we will measure calf muscle tissue oxygenation levels to further differentiate ischemic vs. non-ischemic symptoms during exercise. The primary outcome will be the diagnostic accuracy of patient-reported symptoms which discriminate between PAD and non-PAD conditions. Positive predictive value and accuracy will be calculated using receiver operating characteristic (ROC) curve and chi-square analysis. RESULTS/ANTICIPATED RESULTS: Results: Previous studies from which symptom descriptors have been obtained were from patients with known PAD, of which 85-88% of participants were male.¹⁻² Seventy-six percent of this sample thus far is female. Nationally, PAD prevalence is 20% in those over the age of 70 years, however 58% of our study participants tested positive for PAD (via ankle brachial index test).³ The most commonly reported symptoms of PAD are “numbness” and “aching” vs. those without PAD most commonly reporting

“cramping”. These results trend against our current understanding of PAD symptomatology, which is that cramping is the cardinal symptom of PAD.⁴ Preliminary analysis suggests that balance is a sensitive and specific predictor of PAD. Recruitment is ongoing, therefore results are preliminary. DISCUSSION/SIGNIFICANCE OF IMPACT: Translation of the results will impact primary care and community health. Improved disease detection will position providers to refer patients to exercise therapy before symptoms become disabling. Understanding the diagnostic accuracy of symptoms prepares us to apply novel techniques, such as statistical modeling, to systematically predict PAD.

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Development of a play-based coaching intervention to improve quality of life and wellbeing for mothers with cancer and their young children

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OBJECTIVES/GOALS: Mothers with cancer who have young children experience life disruptions when treatment procedures limit mother-child interactions. This study proposes the development of an intervention combining the Coaching approach with the Model of Playfulness to improve Quality of Life (QoL) and wellbeing of these patients and their young children. METHODS/STUDY POPULATION: This embedded mixed method study will be guided by the two initial phases of the ORBIT Model for the development of behavioral interventions for patients with chronic diseases. Participants will be mothers in the post-acute treatment stage of cancer (n = 6) and their children who are between 2 years and a half and 6 years, 11 months. Phase 1A, Definition, builds on qualitative data from a concurrent study exploring the experiences of mothers with cancer playing with their young children. As part of this phase, we will develop a play-based coaching intervention. In Phase 1B, Refinement, we will employ in-depth semi-structured interviews and standardized tools to evaluate acceptability of the intervention and preliminary outcomes. This will serve to further refine the intervention. RESULTS/ANTICIPATED RESULTS: Phase 1A will yield a plan for the intervention and data to enhance its initial implementation. Phase 1B will yield data, from the perspective of the mothers, about acceptability of the intervention procedures (e.g., delivery strategy, place for the intervention, time devoted, and outcome measures). This will enable modifications to the intervention. Additionally, Phase 1B will yield preliminary data from specific QoL and wellbeing measures. For the mother, data about anxiety and depression symptoms, stress levels, and parental self-efficacy; for the child, emotional and behavioral indicators; for both: playfulness. DISCUSSION/SIGNIFICANCE OF IMPACT: This study entails the development of an intervention to enhance QoL and wellbeing of mothers with cancer and their children. Play moments as the centerpiece of the intervention, represent an innovative approach. Findings will guide the design of future feasibility studies to advance the development of this outcome driven intervention.