

bowel syndrome and Crohns Disease) were also reported (147 and 96 counts, respectively). Respondents also reported on the abuse potential and adverse effects of Kratom (122 counts). **DISCUSSION/SIGNIFICANCE:** This is the first study to delineate and classify motives for kratom use among Americans. Individuals reported using kratom for a wide spectrum of health-related reasons. Though these results may be influenced by the placebo effect, they suggest that kratom alkaloids may possess therapeutic activity for previously unknown applications.

## Team Science

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### Clinical characteristics and psychosocial factors associated with temporary neuromodulation success

Kimberly E Stephens<sup>1</sup>, Mary Frances Dooley<sup>2</sup>, Lauren A, Byers<sup>3</sup> and Johnathan H. Goree<sup>4</sup>

<sup>1</sup>University of Arkansas for Medical Sciences and the Arkansas Children's Research Institute, <sup>2</sup>BSN, RN, College of Nursing, University of Arkansas for Medical Sciences, <sup>3</sup>MSNc APRN FNP-BC, UAMS Interventional Pain Clinic and <sup>4</sup>Department of Anesthesiology, Division of Chronic Pain, University of Arkansas for Medical Sciences

**OBJECTIVES/GOALS:** The present work aims to use baseline data to identify demographic, clinical, and psychosocial factors associated with patients who receive analgesic benefit from temporary neurostimulation. **METHODS/STUDY POPULATION:** This study presents baseline data from our descriptive, prospective, longitudinal study. Consecutive patients who present to the University of Arkansas for Medical Sciences Interventional Pain Management Clinic for implantation of a neurostimulation device, have met clinical criteria for implantation of a neurostimulation device, and are able to speak and understand English are invited to participate. Prior to the placement of the temporary stimulator, each patient completes demographic and symptom-related questionnaires. Clinical characteristics are obtained through medical record review. **RESULTS/ANTICIPATED RESULTS:** We anticipate enrolling 50 participants in order to have 30 patients that report analgesic benefit from temporary neurostimulation. Variability in demographics, clinical characteristics, and psychosocial factors will be reported between patients who receive and those who do not receive analgesia following temporary neurostimulation. Gender differences will also be reported. **DISCUSSION/SIGNIFICANCE:** Despite the use of varying outcome measures, studies to date have not incorporated validated patient reported outcomes or controlled for key demographic and clinical characteristics. Our analysis evaluates clinical and psychosocial variables associated with successful temporary neurostimulation.

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### Adaptation and Evaluation of Guideline-Based Family-Based Behavioral Treatment for Overweight and Obesity in Childhood Survivors of Acute Lymphoblastic Leukemia (ALL)

Jessica Jakubiak<sup>1</sup>, Denise Wilfley<sup>1</sup>, Allison King<sup>1</sup> and Robert J. Hayashi<sup>1</sup>

<sup>1</sup>Washington University in St. Louis

**OBJECTIVES/GOALS:** Childhood survivors of ALL are at considerable risk for late effects which are exacerbated by excess weight. The proposed study involves the adaptation and evaluation of the first

empirically supported intervention for childhood survivors of ALL that is consistent with all national recommendations for the treatment of childhood obesity. **METHODS/STUDY POPULATION:** The proposed intervention will be adapted from family-based behavioral weight loss treatment (FBT) a multicomponent intervention which targets diet, activity, behavioral skills, parenting, and social facilitation among children and their parents. The Framework for Reporting Adaptations and Modifications-Enhanced structure (FRAME), a dissemination and implementation framework, will guide the adaptation, allowing for the incorporation of feedback previously gathered from key stakeholders. A single-arm, non-randomized trial of the adapted intervention will then be conducted to evaluate its acceptability, feasibility, and preliminary indications of efficacy including measures of relative weight change and associated health-related behaviors among 40 childhood ALL survivors and their families. **RESULTS/ANTICIPATED RESULTS:** Self-reported feedback from families at the end of treatment (EoT) is anticipated to demonstrate that this intervention will be regarded as both acceptable and feasible. Other measures of feasibility will include attendance and retention rates, which are expected to reflect to those of previous FBT trials (92% and 85%, respectively). Preliminary indications of the efficacy of the adapted intervention will be investigated through the comparison of a series of measurements taken at both baseline and EoT. Changes in relative weight will be assessed and are expected to meet a previously established range of clinically meaningful reduction in child percent overweight of 9 units or more. Improvements in dietary intake, physical activity, and health related quality of life are also anticipated. **DISCUSSION/SIGNIFICANCE:** Knowledge gained from the implementation of the first evidence-based intervention adapted for childhood survivors of ALL will be critical to the justification of a larger-scale, randomized controlled trial and holds promise to effectively modify the risk for chronic disease among a vulnerable population.

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### Adapting a randomized, placebo-controlled pilot study aimed to reduce anxiety symptoms to overcome recruitment barriers

Kristen S Smith<sup>1</sup> and Drew FrugÅ©<sup>1</sup>

<sup>1</sup>Auburn University

**OBJECTIVES/GOALS:** Minimal human investigations have assessed the effect of synbiotics (combination of pre- and probiotics) on anxiety symptoms, despite evidence from preclinical research. Our study aimed to determine the feasibility of a randomized, placebo-controlled trial utilizing synbiotics to reduce anxiety symptoms in older female breast cancer survivors. **METHODS/STUDY POPULATION:** We aimed to recruit older female breast cancer survivors experiencing anxiety symptoms to a 4-week randomized, placebo-controlled clinical trial. At commencement of the project, participants were eligible if they : 1) were 50-75 years old; 2) completed primary treatment for breast cancer; 3) were experiencing clinical anxiety symptoms 4) agreed to not change dietary supplements 5) were willing to comply with daily supplement regimen; and 6) were able to read and speak English. Use of anxiolytic or microbiome-altering medications, or changes to anxiety treatment within 4 weeks of enrollment were criteria for exclusion. Due to budgetary limitations, we were unable to recruit from state cancer registries, and instead recruited via newspaper advertisements and flyer distribution. **RESULTS/ANTICIPATED RESULTS:** One participant has successfully been recruited and completed the duration