Research Project Title: Breast cancer survivor's depression and heart rate variability: risks for heightened pain sensitivity

Student Presenter: Raisa Amin

Faculty Mentor: Janice Kiecolt-Glaser

Faculty Mentor Department: Psychology; Psychiatry and Behavioral Health

Research Abstract: Previous research has indicated that 25-60% of breast cancer survivors experience pain, regardless of their cancer treatment and cancer stage. The consequences of chronic pain include increased risk of mortality, impairment of sleep and memory, unemployment and lower quality of life. Breast cancer survivors are four times more likely to have depression compared to healthy populations. While the link between pain and negative mood is well documented, the current study aims to fill the gap in the literature by investigating the effects of depression and low-heart rate variability (HRV) on pain sensitivity in breast cancer survivors. HRV is the beat-to-beat variability of the heart, a good index of one’s ability to regulate emotion in the face of a challenge such as pain. It was predicted that female breast cancer survivors who are diagnosed with depression who exhibit lower HRV will be more pain sensitive than those who are not diagnosed with depression and have higher HRV. In the ongoing parent study, breast cancer survivors stages I-IIIA (N=75) provided data on depression, HRV, and pain. Pain data were collected through questionnaires and a temperature based pain task; HRV data were collected through a heart rate monitor; and depression data were acquired through clinical interviews with the survivors. In our sample, 29.9% of the survivors had a diagnosis for MDD. Preliminary analysis showed that pain sensitivity in the survivors is not significantly associated with MDD or lower HRV (ps> 0.237) controlling for age, cancer stage and cancer treatment history. However, data from self-report questionnaires suggests a marginal yet non-significant correlation between depressed mood and pain (r= 0.254, p= 0.052). A better understanding of the association between depression, HRV and pain sensitivity might ultimately help identify which cancer survivors are at a higher risk for experiencing chronic pain and its consequences.
Research Project Title: Are black women more likely than white women to use religion as a source of support when dealing with high breast cancer risk?

Student Presenter: Melissa Angeli Reyes

Faculty Mentor: Tasleem Padamsee

Faculty Mentor Department: Public Health

Research Abstract: Background:

Increasing research has shown how effective social support, including religious support, can be for health outcomes in the United States. For example, sources of support increase individuals’ likelihood of engaging in preventive screening (Kinney et al, 2005). Studies have also found that Blacks are more likely to use religion as a source of social support than Whites. In this study, I explored the role of religion in how diverse women cope with cancer risk. I hypothesized that Black women were more likely than White women to mention religion as one of their sources of support in the process of cancer prevention.

Methods:

This qualitative analysis involved face-to-face interviews conducted by Dr. Tasleem Padamsee. The total number of respondents was 49: 29 White and 20 Black. The first stage of analysis in the parent study identified all paragraphs from the transcripts that were about the themes relating to religion: lifestyle prevention, perception of risk prevention, and support structures. I tracked occurrences of the following keywords in those paragraphs through an excel spreadsheet: faith, church, prayer, Lord, God, spirituality. I then summarized the respondents’ paragraphs mentioning the keywords, and categorized each respondents’ answer based on whether any keyword denoting religion was mentioned.

Results: During their interview about breast cancer prevention decisions, 30.6% of participants (15 out of 49) mentioned religion. 20.6% of White women (6 out of 29) mentioned religion. 45% of Black women (9 out of 20) mentioned religion.

Conclusion: Almost a third of participants in general mentioned religion. Religion therefore seems to play a role in coping with breast cancer risk for a substantial minority of women. A higher percentage of Black women than White women mentioned religion. This finding supports the initial hypothesis that Black women are more likely than White women to use religion as a source of support when coping with being at high risk of breast cancer.

Keywords: religion, high-risk breast cancer, women’s health, cancer prevention, health disparities
Research Project Title: Subjective and objective cancer-related cognitive impairment in chronic lymphocytic leukemia

Student Presenter: Marcia Burns

Faculty Mentor: Barbara Andersen

Faculty Mentor Department: Psychology

Research Abstract: Introduction: The goal of this study is to further research on cognitive effects of chemotherapy, specifically in CLL patients. Chronic lymphocytic leukemia (CLL), the most common adult leukemia, is a heterogeneous diagnosis resulting from an abnormal accumulation of malignant lymphocytes. There is no cure for CLL as treatments only result in temporary remissions. Patients are at risk for potentiating adverse side effects of repeated treatment such as cancer-related cognitive impairment. These impairments include subjective, patient-reported cognitive complaints during and after treatment along with objective cognitive impairment on neuropsychological tests.

Method: Data will be analyzed from a phase II clinical trial of CLL patients undergoing combination chemotherapy (Obinutuzumab, Venetoclax, and Ibrutinib). There are two patient groups: Relapse/Refractory (R/R, at least one prior treatment, N=21) and Treatment Naïve (TN, no prior treatment, N=23). Patients will be administered the Patient-Reported Outcomes Measurement Information System: Cognitive Function (PROMIS-CF), Controlled Oral Word Association Test (COWAT), and the Rey Auditory Verbal Learning Test (AVLT) upon pretreatment, six months, and twelve months of treatment.

Results: Prospective results will determine:

1) R/R patients will experience more cognitive impairment at pretreatment assessment than TN patients.

2) Cognitive impairment will worsen from baseline assessment to twelve months across groups.

a) Exploratory analysis will test age, as a moderator, such that older age will result in more complaints and worse objective scores over the course of treatment as observed in previous cancer literature.

3) A group by time interaction such that R/R patients will have lower scores, more complaints, and show greater impairment with time compared to TN patients.

Conclusions: This study will increase information regarding cognitive dysfunction, a prevalent stressor in cancer patientsâ€™ lives that can impair daily life and autonomy. Specifically, in a vulnerable patient population, such as CLL, which has not been definitively studied in cancer control research. Furthermore, this study will increase understanding of cancer-related cognitive impairment, especially in regard to novel chemotherapeutic agents, and may result in improved care and increased services for current and future patients.
Research Project Title: Examining adherence to an online cognitive behavioral therapy for cancer patients with major depressive disorder

Student Presenter: Mary Carson

Faculty Mentor: Barbara Andersen

Faculty Mentor Department: Psychology

Research Abstract: Major depressive disorder (MDD) is the most prevalent psychiatric disorder among cancer patients and is associated with significant functional impairment including poorer physical health and poorer quality of life. There are currently no specific treatments for cancer patients with MDD and only a handful of studies have successfully adapted cognitive behavioral therapy (CBT) for the cancer population. CBT is the most empirically supported treatment for MDD and has been proven to be both efficacious and effective. However, traditional face-to-face CBT may not be ideal for patients with cancer, as many are already burdened by numerous appointments, fatigue, and/or negative associations with clinical settings. A convenient, more accessible, and self-paced treatment such as computerized cognitive behavioral therapy (cCBT), may be a suitable alternative. Although cCBT has been shown to be effective in treating depression, treatment adherence has been a major limitation. As such, it is unclear what factors influence cCBT dropout in cancer populations. Thus, the proposed study will examine treatment adherence and factors that contribute to dropout in a cCBT for cancer patients. This study’s aims are as follows: (1) To perform exploratory qualitative analysis examining reasons for not completing treatment. (2) To determine if these reasons are cancer specific. Semi-structured interviews over the phone will be conducted with participants who did not complete the 8 total weekly sessions of an ongoing randomized, waitlist controlled trial of cCBT for the treatment of MDD in cancer patients (n=28). Participants’ adherence issues related to program content, accessibility, health concerns, and mood will be assessed. Results are forthcoming. It is hypothesized that: (1) factors contributing to dropout will be varied but focus on program content (2) reasons for dropout will not be cancer related. Online interventions hold promise as a treatment modality for cancer patients. Identifying barriers to treatment adherence could help inform and optimize future online treatments for cancer patients.
Research Project Title: Predictors of sexual activity in breast and gynecologic cancer patients during adjuvant chemotherapy

Student Presenter: Katherine Conroy

Faculty Mentor: Kristen Carpenter

Faculty Mentor Department: Psychiatry

Research Abstract: Predictors of sexual activity in breast and gynecologic cancer patients during adjuvant chemotherapy

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Following treatment, approximately 30-50% of breast and gynecologic cancer survivors become sexually inactive (Grimm et al., 2015; Marino, Saunders, & Hickey, 2017; Raggio, Butryn, Arigo, Mikorski, & Palmer, 2014). Studies of long-term survivors suggest that many women may never resume sexual activity (Grimm et al., 2015; Lee et al., 2015). Sexual inactivity in survivors of cancer is associated with negative outcomes including feelings of unattractiveness, feeling unlike a woman, and depressive symptoms (Marino et al., 2017), while in studies of the general population, sexual inactivity in partnered people is associated with lower happiness in their relationship, less social support, and poorer health (Donnelly, 1993; Hess et al., 2009; Karraker & DeLamater, 2013). Despite a number of studies of sexual activity and function in survivors of cancer, little is known about the natural course of resumption of sexual activity following cancer diagnosis and treatment. While many women may take a break from sexual activity during treatment due to acute side effects, a subset of women remain sexually active during the course of chemotherapy. An understanding of these positive outcomes may shed light on the factors behind more negative outcomes. Data for this project come from an ongoing study of female patients (N=80) receiving adjuvant chemotherapy as treatment for breast or gynecologic cancer at the Ohio State University Comprehensive Cancer Center. Participants filled out questionnaires prior to and throughout chemotherapy treatment including assessments of sexual outcomes, physical and psychological health outcomes, and sociodemographics. Data from baseline (prior to first chemotherapy infusion) assessment and from brief assessments during each chemotherapy infusion thereafter are currently being analyzed to reveal possible physical, psychosocial, and demographic correlates and predictors of sexual activity. Results from this study may aid in understanding the experience of sexual issues during chemotherapy and consequentially encourage
Research Project Title: Effects of optimism on coping strategies and health outcomes in women with gynecologic and breast cancer undergoing chemotherapy

Student Presenter: Kendall Fugate-Laus

Faculty Mentor: Kristen Carpenter

Faculty Mentor Department: Psychiatry

Research Abstract: Approximately 40% of new cancer diagnoses in women are gynecologic or breast cancers (Siegel, Miller, & Jemal, 2015) which require multimodal treatment. During chemotherapy, patients are vulnerable to an onset of adverse side effects. Personality traits such as optimism may affect the coping strategies patients use to influence these adverse health outcomes (Scheier, Weintraub, & Carver, 1986; Scheier, Carver, & Bridges 1994; Segerstrom, CastaÑeda, & Spencer 2003; de Moor et al., 2006; Carver and Connor-Smith, 2010; Segerstrom and Sephton, 2010). While optimism predicts more active, approach-oriented coping strategies (Carver et al., 1993; Segerstrom et al., 2003, Carver et al., 2010) which can promote beneficial outcomes, previous research also suggests that those high in optimism may be at a higher risk for stress and impaired immune functioning if they are unsuccessful in their attempts to cope with a demanding stressor (Segerstrom, 2001). However, no researchers to our knowledge have examined how specific coping strategies affect health outcomes on a daily basis in those undergoing chemotherapy. This is a particularly important timeframe to examine given the unique and difficult challenges patients face adjusting to chemotherapy treatment. In this study, we sought to explore the daily associations between coping strategies and health outcomes among chemo-naÃ¯ve women undergoing chemotherapy for gynecologic or breast cancers. Specifically, we aimed to determine which coping strategies were more effective for women higher and lower in optimism, respectively, and whether optimism was related to the use of more strategies overall. Participants (N=80) completed an assessment prior to chemotherapy, during the first eight infusions, and following treatment that included measures of psychological and physical health. In addition, participants completed a one week diary log between the third and fourth chemotherapy infusion assessing toxicities (i.e. fatigue, nausea, distress), strategies used to cope (e.g. rest, distracting yourself, exercise), and perceived effectiveness of attempted coping strategies in the management of daily symptoms. Collected data are currently being analyzed and are part of an ongoing study. Findings from this study may aid in understanding individual experiences during chemotherapy and point towards the clinical value of encouraging certain coping strategies throughout treatment.
Research Project Title: A comparison of weight status differences in meeting AICR recommendations for dietary intake of plant and animal foods

Student Presenter: Madisyn Good

Faculty Mentor: Chris Taylor

Faculty Mentor Department: Medical Dietetics

Research Abstract: Introduction:

One in three cancers is linked to body weight, diet, and physical activity. In 2011, the American Institute for Cancer Research (AICR) published cancer prevention recommendations, which emphasized a plant-based diet. The purpose of this study is to determine the extent to which Americans meet the AICR’s recommendations regarding plant foods and animal foods, and how obesity plays a role in this relationship.

Methods:

Dietary intake data from the 2007-2014 National Health and Nutrition Examination Survey (NHANES) was used to assess the concordance of intakes with AICR’s plant-based and animal-based recommendations. Dietary intakes were assessed using a multiple pass 24-hour recall and were categorized to meet fruit, vegetable, whole grain and red meat recommendations. Weight status was classified from measured body mass index as normal weight (18.5-24.9), overweight (25-29.9) and obese (&gt;=30). Differences in fruits, vegetables, whole grains and red meat intakes, as well as the proportion meeting AICR recommendations, were compared across weight status.

Results:

Only 36.4% of normal weight individuals, 37.2% of overweight individuals, and 31.0% of obese individuals met the recommendation of at least 2.5 cups of fruits and vegetables daily. There was also a significant difference (P &lt; 0.0001) in whole grain consumption between obese individuals compared to normal weight and overweight individuals. About one-third of normal weight individuals, 28.8% of overweight individuals, and 25.7% of obese individuals consumed at least 1 oz. of whole grain. In comparison to the AICR’s public health goal recommendation for animal foods, 50.0% of normal weight, 44.4% of overweight, and 42.7% of obese individuals consumed less than 1.57 oz. per day (11 oz. divided by 7 days), with a significant difference between normal weight compared to overweight and obese individuals.

Conclusions:

Overall, US adults are not meeting the AICR’s recommendations for cancer prevention; however, obese individuals are doing significantly worse. Excess body fat as well as poor dietary intake could put obese individuals at a greater risk for cancer. Dietary intake, specifically in regard to plant and animal foods, is a lifestyle factor that should be addressed by clinicians in the prevention of this disease.
Research Project Title: Sleep disturbance in older adult patients with advanced cancer

Student Presenter: Abigail Frooman

Faculty Mentor: Judith Tate

Faculty Mentor Department: Nursing

Research Abstract: As cancer detection and treatment improves, people with cancer diagnoses are living longer. Cancer as a chronic illness has led to new demands to manage the side effects of the disease (McCorkle et al., 2011). In cancer patients, one of the most common symptoms is sleep disturbance and fatigue. Sleep is critical for providing restorative, protective, and energy-conserving functions that are imperative for human life (Matthews et al., 2016). The purpose of this study is to be able to describe sleep trajectories and symptom burden for hospitalized patients with advanced cancer over time. This study is a secondary analysis of a multi-site, prospective, observational study of palliative care consults in hospitalized patients with advanced cancer. Participants in this study included patients 18 years or older admitted to an acute care unit with advanced cancer that did not fit any of the exclusion criteria. The Condensed Memorial Symptom Assessment Scale (CMSAS) was used to assess the presence, frequency, and amount of distress associated with sleep disturbances in study participants. Data analysis is currently incomplete, but will have results and conclusions by time of the Denman.
Research Project Title: The effect of depression and cancer treatment on physical fitness among breast cancer survivors.

Student Presenter: Siobhan McDermott

Faculty Mentor: Janice Kiecolt-Glaser

Faculty Mentor Department: Psychology

Research Abstract: Depression presents a prevalent problem to breast cancer patients and is associated with decreased physical activity during a period when exercise appears to ensure promising recurrence and mortality rates. However, it remains unknown whether depressive symptoms are related to decreases in objectively-measured physical fitness throughout survivorship. The current study assessed whether changes in depressive symptoms from pre- to post-adjuvant treatment (i.e., chemotherapy or radiation) corresponded with changes in physical fitness. Participants were breast cancer patients stages I-IIIA (N=20) who enrolled in a parent study investigating the effect of cancer treatment on heart disease risk factors. Women completed two visits, one prior to starting adjuvant therapy and a follow-up visit approximately 2 years after treatment ended. During each visit, participants completed a self-report measure assessing depressive symptoms (CES-D). A cycle ergometer exercise test assessed individuals’ VO2 max, their maximum aerobic oxygen consumption, as a measure of fitness. Exercise test duration was used as an additional measure of performance. Across visits, women reported average increases in depressive symptoms (M = 0.17, SD = 9.48), and decreases in physical fitness (M = -1.61, SD = 3.41). Changes in depressive symptoms from pre- to post-adjuvant therapy were not significantly associated with changes in physical fitness (b = 0.02, SE = 0.12, p = .848) or changes in test duration (b = -0.00, SE = 0.03, p = .977) controlling for adjuvant treatment type, BMI, education, race, surgery type, and cancer stage at visit 2. Although the current study found no association between changes in depressive symptoms and physical fitness from pre- to post- adjuvant treatment, this may be due in part to the small sample size available at the time of data analysis. Future, planned analyses with a larger sample will investigate this link further, and determine whether treatment type received (e.g., chemo, radiation, hormone, or surgery alone) moderates the relationship between depressive symptoms and fitness. A better understanding of the relationships between depression, cancer treatment, and fitness may ultimately identify patients most at risk for physical fitness declines across survivorship, and who would benefit most from interventions.
Research Project Title: Screening older women with breast cancer for depression and poor sleep

Student Presenter: Keya Patel

Faculty Mentor: Janine Overcash

Faculty Mentor Department: Nursing

Research Abstract: Background: Depression rates nearly double for older adults diagnosed with breast cancer. Depression is a serious problem which affects many aspects of life, including sleep. The symptom cluster of depression and sleep alteration should be managed as part of the breast cancer survivorship care plan. The purpose of this study is to describe the incidence and the relationship between depression and sleep alterations in older breast cancer patients.

Method: This prospective study took place at the James Cancer Center, Comprehensive Breast Center and includes people aged 70 years and over. We invited participants to consent who were diagnosed with breast cancer and receiving any type of cancer treatment (surgical, hormonal, or chemotherapeutic). Participants were asked to complete a Geriatric Depression Scale and a Pittsburgh Sleep Quality Index. Demographic characteristics were analyzed using descriptive statistics to determine the relationship between depression and sleep alternations.

Results: The mean age (N=60) was 78 years (range 69-93). Most (66%) were diagnosed with infiltrating ductal carcinoma and underwent lumpectomy (58%). Mean scores on the GDS were 2.02 (negative screen for depression). The mean score on the PSQI was 4.7 which does not indicate sleep problems. However, 38.9% of people screened positive for sleep difficulty on the PSQI (≥5). Sleep and depression were correlated (r=.52 p=0.0).

Conclusion: Sleep alterations and depression are common symptoms which are related. Understanding that both symptoms often occur together can inspire the development of an appropriate nursing care plan. A reasonable amount of older cancer patients experience sleep problems and it is important to assess for sleep alterations upon each clinic visit. Nurses must educate patients and family to report problems with depression and sleep and to provide assurance that many people experience these types of symptoms.
Research Project Title: A qualitative study of the experiences of women who test negatively for mutations, but are at high risk for breast cancer: Analysis of an online support group

Student Presenter: Emma Wauschek

Faculty Mentor: Tasleem Padamsee

Faculty Mentor Department: Health Services Management & Policy, College of Public Health

Research Abstract: Background: Little information exists about support received by women who test negatively for mutations, but are at high risk for breast cancer. One potential source is the “Mutation Negative” Forum on Facing Our Risk of Cancer Empowered, a website for women seeking support and information about their risk. Using this forum, I investigated: types of support women ask for and receive (informational, emotional, affirmational), issues they face, who they get support from (mutation positive or negative women), and how likely they are to receive support compared to women who are positive for mutations.

Methods: Analyzing all thirteen support requests made over two years on the “Mutation Negative” Forum, I determined type of support, main issue, and genetic profile of posters. First, I calculated the percentage of mutation negative women who received some sort of support (at least one responding post). After, I calculated the percentage of respondents who were either positive or negative for any mutation. Analyzing the 20 support seekers on the separate “Positive for Other Mutations” Forum, I calculated the percentage who receive support. Lastly, I compared the likelihood of receiving support between both forums.

Results: 10 mutation negative women sought informational support, and 3 emotional. Most issues involved concerns about surgery, insurance, and hearing from other women with similar issues. 81% (13) of the responses provided informational support, and 19% (3) provided emotional support. No responses provided affirmational support. Of the 16 individuals who commented, 50% (8) were negative for mutations, and only 6% (1) were positive; the rest (44%, 7) did not mention their genetic profile. Lastly, 62% (8) of the mutation negative women who started a thread received some sort of support, compared to 65% (13) women who posted in the “Positive for Other Mutations” Forum.

Conclusion: High risk but mutation negative women may have difficulty finding support. However, the majority of such women seeking support received responses from women in the same situation, and response rates were comparable to those for mutation positive women. These findings suggest that FORCE forums can be a potential source of support for mutation negative women.
Research Project Title: ASCO guidelines for anxiety and depression assessment and risk identification with chronic lymphocytic leukemia patients

Student Presenter: Abigail Robbertz

Faculty Mentor: Barbara Andersen

Faculty Mentor Department: Psychology

Research Abstract: Introduction: Psychological distress is common amongst cancer patients, with 13-40% and 10-30% experiencing symptoms of depression and anxiety, respectively. The American Society of Clinical Oncology (ASCO) has provided guidelines for screening, assessment, and treatment of anxiety and depressive disorders in cancer patients and has detailed risk factors for greater disorder severity. Patients with chronic lymphocytic leukemia (CLL) were screened and information on risk factors was obtained. This study sought to describe the anxiety and depression symptomology and its relationship with relevant risk factors in an understudied cancer population.

Methods: Patients diagnosed with CLL (N= 113) were assessed prior to start of targeted therapy. ASCO recommended measures of depressive (PHQ-9) and anxiety symptoms (GAD-7) were completed. Information on psychiatric disease characteristics and demographic risk factors were obtained. A multiple linear regression was used to predict depression and anxiety from select ASCO (income, gender and marital status) and additional risk factors (cancer-specific stress, negative life events, age and fatigue).

Results: At baseline, 29.3% of patients were experiencing symptoms of depression (18.6% mild, 6.2% moderate and 4.5% moderate to severe) and 26.8% were experiencing symptoms of anxiety (17% mild, 8% moderate and 1.8% moderate to severe). The results of the regression indicated cancer-specific stress, negative life events and fatigue explained 55% of the variance in depression scores ($R^2 = .553$, $F (3, 110) = 44.173, p < .000$) at baseline. Cancer-specific stress ($\beta = .138, p < .000$), negative life events ($\beta = 1.023, p = .012$) and fatigue ($\beta = .159, p < .000$) significantly predicted levels of depression. Additionally, negative life events and fatigue predicted 40% of the variance in anxiety scores ($R^2 = .399$, $F (2, 111) = 36.14, p < .000$) at baseline. Negative life events ($\beta = .193, p > .000$) and fatigue ($\beta = .080, p = .002$) significantly predicted levels of anxiety.

Discussion: Screening all cancer patients for distress is an important criterion to provide innovative treatment for cancer patients. Determining which factors are correlated with depression and anxiety will improve preventative measures and enable the use of supportive care for cancer patients with greatest risk.
Research Project Title: Factors that influence whether or not posts in breast cancer related message boards will receive responses

Student Presenter: Theresa Tran

Faculty Mentor: Tasleem Padamsee

Faculty Mentor Department: College of Public Health

Research Abstract: Background: Facing Our Risk of Cancer Empowered (FORCE) is a website that provides message boards for women with high risk of breast cancer to discuss questions with others who have similar concerns. This research aims to understand why certain posts receive responses while others receive none.

Methods: In the parent project, researchers qualitatively coded two years’ worth of “Main” forum threads into categories including type of support requested and whether women received that support. In this specific project, I separated threads by whether or not they received a response and conducted several coding stages. Of 110 “no response” posts (NRPs), I selected every other post for a sample of 55. Of 342 posts with at least one response (AORPs), I selected every 6th post for a comparison sample of 57. Then, I coded each for categories including type of support requested, number of views, number of paragraphs, tone, and inclusion of phrases denoting generality. I reviewed my coding multiple times to distinguish any differences between samples.

Results: Among the NRPs, 34 contained phrases denoting generality e.g. “any” or “anyone.” 36 AORPs also contained those phrases. However, NRPs were brief and open-ended. AORPs had multi-paragraphed and specific questions. Additionally, NRPs had lower numbers of views than AORPs. Furthermore, 51 of the NRPs requested strictly informational support and only 3 requested emotional support along with informational, while 30 AORPs requested only informational support and 23 requested a mixture of informational along with either emotional or affirmational support.

Discussion/Conclusion: My initial hypothesis was that vague posts received no responses due to the phenomenon “Diffusion of Responsibility.” This is the idea that the more people present, the less responsible someone feels for their actions. My results did not support this hypothesis. Posts that received responses contained emotional information, which may have made people feel more inclined to answer. Additionally, posts that received responses garnered more views than those that did not. Certain posts may have gone unanswered simply because people did not see them. Subsequent research should explore larger sample sizes, time-zones, and high-traffic times on the website.
Research Project Title: The association of clinical trial comprehension on the likelihood to enroll in a randomized clinical trial for cancer treatment

Student Presenter: Danielle Townsend

Faculty Mentor: Jessica Krok

Faculty Mentor Department: Health and Rehabilitation Sciences

Research Abstract: Introduction/Background: While it is generally understood that randomized clinical trials (CTs) are essential to cancer research, there is not much emphasis placed on the patient-level factors that influence decisions to enroll in a CT. Furthermore, patients are not always confident and knowledgeable about what is being asked of them when given the opportunity for cancer CT enrollment. A lack of understanding of the concepts of randomization and chance may alter a patient's willingness to enroll in a cancer CT. Thus, this study sought to understand the association of patient demographic factors, patient comprehension of CTs, randomization, chance, and CT enrollment.

Method: An online survey using Qualtrix was conducted to examine cancer CT enrollment among adult cancer survivors based on participants' knowledge of important cancer CT concepts, such as randomization and chance. Chi square, t-test, univariate, and multivariate analyses were conducted to study the effect of cancer CT comprehension on the enrollment of those patients who were offered the opportunity to enroll in a cancer CT.

Results: Of the 123 survey participants that were offered cancer CT enrollment, the majority were non-Hispanic white (71.5%), and female (67.5%), with an average age of 47 years. Results indicated that participants who were female (OR=5.14, 95% CI=1.17-22.71), and single or never married (OR=6.16, 95% CI=1.46-26.03) were significantly more likely to enroll in a cancer CT. However, the results for comprehension of cancer CTs, randomization, and chance and had varied effects (positive and negative) on cancer CT enrollment.

Conclusions: The varied effects of cancer CT comprehension on cancer CT enrollment suggest that chance and randomization, with respect to cancer CTs, are not well understood by cancer patients. Clinical professionals need to be aware of this comprehension uncertainty among patients in order to improve cancer CT introductory approaches, enhance cancer CT comprehension, and subsequent enrollment among cancer patients.