2013 Oncology Nursing Society Annual Congress: Research Abstracts

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Digital Object Identifier:10.1188/13.ONF.E279-E302

Research Abstracts Index by First Author

101252 (Podium)

MANAGEMENT OF SORAFENIB-RELATED HAND FOOT SKIN REACTION IN PATIENTS WITH HEPATOCELLULAR CARCINOMA: A NESTED, PHASE II STUDY.

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Underwriting or funding source: This study is supported by a research grant from the American Nurses' Foundation.

Significance and Background: Sorafenib is the only approved systemic therapy for advanced stage hepatocellular carcinoma (HCC). FDA approval in 2007 was based on a placebo controlled randomized clinical trial that demonstrated a median survival of 10.7 months as compared to 7.9 months in the placebo arm. However, treatment related toxicities, specifically hand foot skin reaction (HFSR), can circumvent the completion of therapy.

Purpose: To evaluate management of grades 1-3 sorafenib-related HFSR in order to optimize therapy.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This was a quantitative research study.

Methods and Analysis: Patients were treated with systemic sorafenib and concurrent doxorubicin-eluting bead/transarterial chemoembolization (DEB-TACE) administered via the hepatic artery. HFSR toxicity was actively managed in patients, to avoid discontinuation of therapy, maximizing any synergistic effects of the combination protocol. Therapeutic protocol consisted of continuous 6-week cycles with sorafenib given 400mg BID. DEB-TACE was administered during week 2 of Cycle 1 and as needed in subsequent cycles. Prior to initiation of sorafenib, patients were counseled on methods to mitigate HFSR. Toxicities were assessed at weekly clinic visits in Cycle 1, every third week in Cycles 2-4, and every cycle thereafter. Grade-1 HFSR was treated with topical therapies; Grade-2 HFSR was treated with topical therapies and/or sorafenib dose reduction; Grade 3 HFSR was treated with sorafenib interruption.

Findings and Implications: Sorafenib in combination with DEB-TACE was successfully performed in 50 patients: mean 62yrs, 76%(38/50) males, 34/11/4/1 (White/African American/Asian/Hispanic). HFSR occurred in 54%(27/50) of patients, most commonly in Cycle 1 (81%, 22/27).

Severe (grade-3) HFSR occurred in 24%(12/50), most commonly in Cycle 1(75%, 9/12), with sorafenib 400mg BID(83%, 10/12). Grade-3 HFSR resolved in 9.5 days (median) and 66%(8/12) resumed therapy. Median survival in patients with Grade-3 HFSR was 18.9 months versus 8.3 months in patients with Grades 1-2 HFSR (p=0.03). Mild through severe sorafenib-related HFSR was managed in most patients with advanced HCC. There was a tendency for patients who developed severe HFSR toxicity to have longer survival as compared to those with mild HFSR. Single arm and non-randomization are study limitations. These results support further evaluation of optimal management of HFSR and of its mechanism of action.

105258 (Poster)

IMPACT OF CANCER TREATMENT ON DESIRED FUNCTIONAL STATUS.

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Significance and Background: Cancer treatment is known to impact the ability of patients to carry out their usual activities. Most studies have examined impact of treatment on actual functional status, that is the activities that patients are or are not able to carry out. This study will also examine the impact of cancer treatment on desired functional status, or the activities that patients wish to carry out. This is congruent with both the Oncology Nursing Society's research priorities and the Institute of Medicine's focus on patient centered care. Oncology nurses will be able to use this information to support patients in carrying out those activities that are important to them during treatment.

Purpose: The purpose of this study is to explore factors that impact individual's desired functional status during cancer treatment. Specific aims are to: 1) further develop and test the psychometric properties of the Comprehensive Inventory of Functioning-Cancer (CIF-CA) with men and women with a variety of cancer sites and 2) examine the relations between individual characteristics and desired functional status in individuals undergoing cancer treatment.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The Roy Adaptation Model (RAM) will guide this study. The Comprehensive Inventory of Functioning-Cancer was derived directly from the role function mode of the RAM. The RAM focuses on the adaptation of individuals to health and illness. Patients undergoing cancer treatment need to adapt to changes in their desire and ability to carry out their usual activities.

Methods and Analysis: The study will be a cross-sectional descriptive design. Two hundred patients receiving chemotherapy or radiation therapy for stage I-III solid tumors will be recruited and administered the CIF-CA once during treatment. The CIF-CA measures both actual and desired functional status and thus will provide information on activities that patients are able to perform and those that patients wish to perform during treatment. Demographic characteristics will be measured by an investigator-developed worksheet. Psychometric tests of validity and reliability including construct validity coefficients, internal consistency reliability coefficients, and content validity index will be performed on the CIF-CA. Multiple regression analyses will be used to model desired functional status as a function of individual characteristics. This data analysis will provide information on the relation between individual characteristics and desired functional status.

Findings and Implications: Findings from this study will provide oncology nurses with information regarding specific activities that patients wish to continue during treatment but may be having difficulty continuing due to effects of treatment. Findings will also provide nurses with information on which patients are at greatest risk of disruption in their functional status during treatment. Nurses can then use this information to develop plans of care to support patients in maintaining those activities that are important to them during treatment. This will allow nurses to provide patient-centered care that incorporates patients needs and preferences.

108903 (Poster)

PATIENT AND PROVIDER ASSESSMENT OF QUALITY OF LIFE AFTER TREATMENT OF HEAD AND NECK CANCER.

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Significance and Background: Survival rates are increasing after multimodality treatment of squamous cell head and neck cancer (SCHNC). Although very effective, these curative intent treatments severely impact patient quality of life (QOL), most notably enjoyment of and ability to eat. There is a unique role for oncology nurses in QOL intervention both during and after treatment.

Purpose: The purpose of this study was to analyze patterns and assessments of QOL as it relates to eating, before, during and after multimodality treatment for SCHNC.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: n/a

Methods and Analysis: QOL data was collected at five time points as part of a randomized phase III study comparing two concurrent chemoradiotherapy regimens given with curative intent for SCHNC. Although the study was conducted at two institutions, data was only analyzed for 57 patients treated at the Cleveland Clinic, with full two-year data available for 38 patients. Patients completed the Functional Assessment of Cancer Therapy for Head and Neck before beginning treatment, 3 months after completing treatment, and at 8, 12 and 24 months after treatment initiation. A separate assessment of late toxicity was graded by the provider using the Common Toxicity Criteria for Adverse Events (CTCAE v. 3.0) at all post-treatment time points. Patient and provider assessments of specific eating-related QOL items were compared. QOL changes over time were analyzed with repeated measures analysis of variance; associations among QOL items were assessed with Spearman correlation (r).

Findings and Implications: Most patient reported QOL items deteriorated at three months after treatment, but gradually returned toward baseline. Better overall QOL was correlated with ability to eat foods patients liked (r=0.564), swallow naturally and easily (r=0.463), eat solid foods (r=0.531), and with less pain in their mouth, throat or neck (r=0.474). Better overall QOL was also found in older (>57 years) rather than younger patients, and in never/remote smokers rather than current/recent smokers. Although patient and provider QOL assessments correlated well, provider grading was markedly less sensitive to symptomatic intensity. No differences in QOL were seen between the two treatment arms. Given the improving prognosis of SCHNC after treatment, future research must carefully assess the long term toxicity of treatment and its impact on patient reported QOL outcomes.

111445 (Podium)

EMERGENCY DEPARTMENT AND HOSPITAL UTILIZATION IN ADULTS WITH ACUTE LEUKEMIA AFTER INDUCTION THERAPY.

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Underwriting or funding source: This work was supported by funding from the National Cancer Institute 5R25CA116339.

Significance and Background: Emergency Departments (EDs) are coping with increasing demands of patients with cancer who present with acute care needs. While little is known about utilization of the ED/hospital by cancer patients, even less is known about utilization by adults with acute myelogenous leukemia (AML) and acute lymphocytic leukemia (ALL). Patients with acute leukemia can become acutely ill within the course of their treatment; we must understand their utilization of the ED/hospital to best coordinate efforts focused on providing high quality cancer care.

Purpose: This study aimed to identify chief reasons for utilization of ED/hospital services and explore risk factors for entering the ED/hospital. The study supports the ONS Research Agenda by exploring cancer symptoms and side effects across the treatment trajectory in adults with acute leukemia.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Donabedian's structure-process-outcome framework guided this study by examining health services and assessing patient outcomes.

Methods and Analysis: This retrospective, descriptive, longitudinal study included 97 patients >18 years of age at time of diagnosis, with a confirmed diagnosis of AML or ALL and received induction treatment at the North Carolina Cancer Hospital between 2007-2010. Electronic medical records were reviewed for demographic and clinical characteristics and data from ED/hospitalization events from 2007-2012. Wilcoxon Rank Sum tests were used.

Findings and Implications: Of the 97 patients, 62 had AML and 35 had ALL. The median age was 47 (range: 18-82) and 36% were non-White. Seventeen patients died during the study period, and the median follow-up of survivors (n=80) was 3.4 years (range: 1.4-5.2). Of 253 total events, the most common reasons were fever (35%), pain (17%), and respiratory distress (8%); 42.3% of patients had 3 or more events; they were more likely to be younger (median 44 years vs 51 years, p=0.07), have ALL (57% v 34% AML, p=0.03), and have a shorter time from diagnosis to first event (median 69 vs 96 days, p=0.001). These findings will help oncology providers anticipate discharge needs and support follow-up care for those at greater risk for ED/hospital utilization after induction treatment for acute leukemia.

111482 (Poster)

EXPERIENCES OF CHEMOTHERAPY-RELATED COGNITIVE IMPAIRMENT IN YOUNG BREAST CANCER SURVIVORS IN JAPAN.

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Significance and Background: Breast cancer survivors often complain of changes in memory, concentration, executive function, and other cognitive function related to cancer and its treatments. In particular, young female survivors receive great damage due to the cognitive impairment because they are responsible for a variety of social responsibility.

Purpose: This study aimed to describe experience of cognitive impairment of breast cancer for young Japanese women under 45 year-old.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The research was guided by Revised Conceptual Model of Chemotherapy-Related Changes in Cognitive Function Based on the Theory of Unpleasant Symptoms.

Methods and Analysis: This descriptive study was performed on outpatient setting in the university hospital. Open ended interviews using a semi-structured interview guide were conducted with study participants who were diagnosed breast cancer under 45 year-old. A qualitative descriptive approach was used to describe the experiences of cognitive impairment in young breast cancer survivors. Interviews were recorded and transcribed. Qualitative date were coded and grouped into categories.

Findings and Implications: Six patients ranged in age from 33-44 years participated in this study. Three core categories generated from the data were Perceived changes of cognitive function, Receiving positive and negative support from surroundings, and Coping with perceived cognitive changes to live. Participants mentioned difficulty with concentration, short-term memory, hitting on words, performing things efficiently. None of them was explained about cognitive impairment from medical professionals. Participants described receiving support from spouse or friends and sharing experiences with peers. However they had also negative experience that was lacking of understanding of co-workers. Coping strategies for perceived cognitive changes were acceptance, thinking about causes, telling others the conditions, relying on others, and living being conscious of forgetfulness. As to specific experiences in young breast cancer survivors, participants described difficulty with communicating with their children and performing the roles of mother, and consequently they felt themselves deplorable. Some participant told that she thought that it was desirable to marry because she had difficulty with living alone. This study contributed to understanding for experiences in young breast cancer survivors. Oncology nurses should provide information about CRCI to patients and their surroundings, and support patients to cope with CRCI to enhance their quality of life.

113230 (Podium)

A MIX-METHODS STUDY ON BLACK, CAUCASIAN, AND LATINO MEN'S REPORTS OF SYMPTOM BURDEN AND PERCEPTIONS OF THEIR CAREGIVING EXPERIENCE.

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Significance and Background: Research that describes the severity, type, and patterns of symptoms among male cancer caregivers is sparse, particularly for Black or Latino men. Given the projected increase in the US ethnic population, these data are needed to understand the nuances of providing optimal symptom management.

Purpose: To describe severity, type, and interference reported by male caregivers' and their perceptions of the caregiver experience.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The New Symptom Management Model guided this sub-analysis of male caregivers.

Methods and Analysis: Data for this sub-analysis on 28 Latino, Black, and Caucasian men were drawn from a larger longitudinal mixed-method study to examine how caregivers' (distress, sad) and physical (sleep disturbances, fatigue) were affected when caring for a patient with advanced cancer. Bilingual interviewers recruited patients beginning chemotherapy and their primary caregivers from 2 public hospitals in Texas. Data collection occurred at pre-treatment, and post-treatment. Symptom burden was measured using the severity and interference scores from the M D Anderson Symptom Inventory. Descriptive statistics were used to describe symptom burden, caregiving traits, socio-demographic background, and patients' clinical characteristics. Qualitative interviews were conducted with caregivers' at pre and post-treatment. A phenomenological approach was used to analyze data from the men's narratives.

Findings and Implications: The majority of caregivers were Latino (64.3%), family members (75%), lived with the patient (85.2%), and provided care >20 hrs/wk (64.3%). Of 13 MDASI symptoms, men reported distress and sadness as the most severe psychologic symptoms across all time points. Using a 0-10 scale; 10=most severe, means for severe physical symptoms during treatment were disturbed sleep (3.7) and fatigue (5.0). Moderate interference scores for activity (3.6) and mood (3.5) were highest during treatment. 57.2% of patients had a Grade 2 and 3 ECOG score and the majority (85.8%) had advanced solid tumors, stage III and IV. Themes identified across the 3 groups of men included fighting the cancer, being resourceful, and doing the right thing. Physical and psychologic symptoms (symptom burden) reported by men were similar across all 3 ethnic groups. Further research is warranted to determine what type of nursing interventions will minimize symptom burden and contribute to better outcomes in ethnic men during their caregiving experience.

113576 (Poster)

STUDY 20070782: A DOUBLE-BLIND, RANDOMIZED PHASE 3 TRIAL ON THE LONG-TERM SAFETY OF EVERY THREE WEEK (Q3W) DARBEPOETIN ALFA (DA) IN NON-SMALL CELL LUNG CANCER (NSCLC) PATIENTS WITH CHEMOTHERAPY-INDUCED ANEMIA (CIA).

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Underwriting or funding source: Amgen Inc. is the sponsor of this trial.

Significance and Background: Controlled trials have shown erythropoiesis-stimulating agents (ESAs) raise hemoglobin and reduce transfusions in patients with CIA. Safety issues include thromboembolic events and whether ESAs affect disease progression and/or mortality in cancer patients. Several trials have reported an ESA associated increase in disease progression and/or mortality, however other trials have reported neutral impact of ESAs in disease progression and/or mortality. As CIA often develops in lung cancer, studying ESA safety in Stage IV NSCLC is warranted.

Purpose: Non-inferiority of DA to placebo will be analyzed for overall survival (primary endpoint) and progression-free survival (secondary endpoint) when 2700 deaths occur. Other safety endpoints include tumor response and thromboembolic event rate. Superiority of DA to placebo with respect to transfusion rates will be tested if non-inferiority is achieved for overall survival and progression-free survival.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Study 20070782 is a randomized trial currently enrolling Stage IV NSCLC patients with CIA to study the long-term safety of DA (ClinicalTrials.gov NCT00858364).

Methods and Analysis: Stage IV NSCLC patients (~3000) from up to 500 world-wide sites are being randomized 2:1 to receive DA (500 mcg) or placebo Q3W until disease progression or end of chemotherapy. Eligibility criteria include: ≥ 18 years, ECOG status ≤ 1, stage IV NSCLC, no prior adjuvant/neoadjuvant NSCLC therapy, ≥ 2 cycles first-line chemotherapy planned (≥ 6 weeks total), and screening hemoglobin ≤ 11 g/dL. At hemoglobin > 12 g/dL, study drug is withheld until hemoglobin ≤ 12 g/dL. Transfusions are allowed for all patients in both arms when medically indicated.

Findings and Implications: As of October 31, 2012, 860 patients have been enrolled with active sites in the US, EU, Latin America, and the Asia-Pacific region. To date, an independent data monitoring committee has conducted five reviews of unblinded data (including a planned formal interim analysis to test for harm at 10% of planned total number of 2700 deaths) and has recommended trial continuation without changes. This is the largest lung cancer clinical trial conducted and will provide comprehensive data on the benefit:risk profile of DA in NSCLC patients with CIA, which may guide medical practice globally on ESA use in CIA.

114156 (Poster)

THE EFFECTS OF MUSIC THERAPY ON PAIN AND ANXIETY DURING SCREENING MAMMOGRAPHY.

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Significance and Background: Because 1 in 4 women who are diagnosed with breast cancer die annually and the single most important way to prevent this is early detection,The American Cancer Society advises women over the age of 40 to have annual screeening mamography. Many barriers have been reported to compliance with this including financial issues as well as fear and pain. If utilization of music during this mammography procedure helps alleviate pain and anxiety this may eliminate some barriers. Nurses routinely use creative interventions to teach patients to manage pain,anxiety and maintain wellness.

Purpose: The purpose of this study is to examine the relationship between music therapy, anxiety, and pain in women undergoing screening mammography. The objectives include identifying the relationship between music therapy and anxiety and music therapy and pain when women are undergoing screening. This study has the potential to impact individuals' participation in health promotion activities.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Robert Wood Johnson University Hospital's (RWJUH) Nursing Conceptual Model guided the study. This model centers on the needs of the patient and family. Nursing interventions are geared towards helping the patient or family with basic needs, management of health, coping, growth and development, and protection. Instituting music therapy for patients undergoing screening mammography focused on the coping and management of health domains.

Methods and Analysis: The study is a randomized controlled design with 50 subjects in a control arm and 50 intervention arm. Subjects were recruited as they registered for their mammogram. Potential subjects were provided a written consent explaining the study procedure. On Mondays, Wednesdays and Fridays the enrollees completed a demographic form that included a health history, education level, recent medication history and number of previous mammograms. Subjects were given an MP3 player and instructions in its use. They selected music to listen to throughout the mammogram. Immediately after they rated their pain and anxiety on Likert scales from 1-10. On Tuesdays and Thursdays the control group received no music therapy however they completed the demographic form and the post procedure rating of their pain and anxiety. The data was analyzed using the Statistical Package for the Social Sciences.

Findings and Implications: Statistical analyses included an analysis of covariance (ANCOVA) to evaluate the effectiveness of music to decrease anxiety and pain during screening mammography. The mean anxiety scores were lower for the music group then the control group, however, when adjusted these were not statistically significant. There was no statistically significant difference between the groups' pain levels. A Pearson product-moment correlation revealed a correlational relationship between anxiety and pain. These findings indicate that if patients are anxious they will report higher pain levels and that nurses can implement measures such as distraction to improve patients' pain and anxiety levels.

115708 (Poster)

UNMET INFORMATION NEEDS AND QUALITY OF LIFE IN POSTOPERATIVE LUNG CANCER PATIENTS IN JAPAN.

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Significance and Background: The incidence of lung cancer is second highest in Japan, and has increased year by year. Early detection of lung cancer owing to progress of cancer screening program has enabled curative surgery. Quality of life (QOL) in postoperative patients with lung cancer is likely to be deteriorated, because they experience more symptom distress than with other cancers.

Purpose: The purpose of this study are to describe the unmet information needs and quality of life in postoperative lung cancer patients in Japan, and to examine the relationships between them.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: According to Stress and Coping Theory, information is a resource which helps people to adopt stressful event, therefore unmet information needs can negatively affect patient's QOL constructed multidimensional components of physical, emotional, social, and cognitive function.Needs assessment identifies not only patients' perception of need or importance, but also the degree of which they are met.

Methods and Analysis: This study was cross-sectional survey. Postoperative lung cancer patients were recruited. After signing consent form, participants completed the information needs questionnaire containing 20 items EORTC QLQ-C30/LC-13, and demographic information questionnaire. Medical data were collected from patients' charts. Descriptive statistics were calculated for the data. The mean scores of EORTC-QLQ-C30/LC-13 were compared between two patient groups with necessary information and without them using Mann-Whitney U test.

Findings and Implications: Fifty four patients with a mean age of 72.2±10.1 years completed the questionnaire. The highest unmet information needs was the information of complementary and alternative therapy. The result of the analysis compared to patients who received the explanation about wound care after surgery to patients who have not received it showed significant difference in the mean score of "Financial"(U=103.5, p=0.021). As to "Cognitive functioning", there was significant difference between the patients with the information about side effects of targeted therapy and without it (U=34.0, p=0.026). The mean scores of the subscales of the LC-13 in the patients who received necessary information were higher than in the patients who had unmet information needs. This study suggested that oncology nurses should teach patients self-care after surgery for lung cancer and provide information about the symptom management related to the disease and the therapies.

115964 (Poster)

EFFECTS OF SOCIAL SUPPORT ON PHYSICAL ACTIVITY PARTICIPATION IN ADULT CANCER SURVIVORS AND

THEIR CAREGIVERS. Fedricker Barber, RN, ANP, AOCNP®, MD Anderson Cancer Center, Houston, Texas

Significance and Background: Less than 20% of cancer survivors are meeting the recommended physical activity guidelines of at least 150 minutes of moderate-intensity aerobic activity per week, which may increase their risk of developing a chronic illness, a secondary cancer, or disease recurrence. This lack of physical activity in cancer survivors is consistent with the general population; where only 16% of the population in the United States participates in physical activity. Social support has been found to have a positive association with physical activity. However, most studies have focused predominately on cancer survivors, not their caregivers.

Purpose: The purpose of this study is: (1) to explore the relationships and the differences between adult cancer survivors' and caregivers' reported social support, self-efficacy for physical activity (SEPA), and quality of life (QOL); and actual physical activity behavior (PA), and (2) to understand cancer survivors and their caregivers' perceptions of social support in physical activity participation.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Bandura's Social Cognitive Theory

Methods and Analysis: A quasi design was used to explore the differences and relationships between variables in a sample of 101 cancer survivors and caregivers. Mann-Whitney U Test revealed that physical QOL was significantly higher in caregivers (Mdn = 60.38, $n = 38$) than cancer survivors (Mdn = 39.75, $n = 57$), $U = 612$, $z = -3.57$, $p = .000$, $r = 0.37$). A Wilcoxon Signed Rank Test revealed no significant differences in variables at the one month follow-up visit. Spearman's rho identified a negative relationship between physical QOL and PA, $r = -.31$, $n = 56$, $p = .011$ in cancer survivors; and a significant relationship between PA and social support from friend PA participation, $r = .45$, $n = 33$, $p = .004$ in caregivers. Responses to open-ended questions and interviews revealed that cancer survivors and caregivers rely on their social support to encourage and motivate them to participate in PA.

Findings and Implications: These findings suggest priority should be given to strategies that encourage PA in both cancer survivors and their caregivers.

116128 (Podium)

CHEMOTHERAPY-INDUCED PREMATURE MENOPAUSE AMONG LATINA WOMEN WITH BREAST CANCER: AN INTERPRETIVE DESCRIPTION.

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Underwriting or funding source: This study supported by a Doctoral Degree Scholarship in Cancer Nursing from the American Cancer Society (12136-DSCN-11-264-01-SCN)

Significance and Background: Breast cancer (BC) is the leading cause of cancer death in Latina women. Latinas have been understudied despite their growing proportion among BC survivors, distinctive concerns and unique issues as a special population. Chemotherapy is standard treatment for women with BC, but is associated with late/long term effects that require treatment and affect quality of life (QOL). Physiological effects include vasomotor symptoms, amenorrhea, loss of fertility, poor sexual function, low bone density, fatigue, insomnia and weight gain. Psychosocial effects include anxiety, depression, cognitive impairment, health insurance/employment concerns, treatment adherence, altered body image/impaired self-esteem and fear of disease relapse/death creating a complex point in time.

Purpose: The purpose of this exploratory study was to describe the experience of CIPM among Latina women with BC. Long term QOL, self/symptom management, elimination of health disparities and survivorship issues for cancer patients across cultures are high priority ONS research areas.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Qualitative interpretive description methodology from a feminist lens as little is known about the topic and research context is misunderstood.

Methods and Analysis: Telephone interviews with 22 English and Spanish-speaking Latina women with BC treated with chemotherapy who experienced CIPM were audio-recorded with demographic data/Brief Acculturation Scale for Hispanics used. A range of data sources: Interviews, demographic data, BC support group observations, social media outlets, field notes and audit trail were employed. Protection of human subjects and trustworthiness of data were utilized. Data analysis guided by ID using an inductive approach with NVIVO v.9 ® to assist in data management.

Findings and Implications: Preliminary findings reveal Latina women face significant challenges following a BC diagnosis and CIPM. Age, socioeconomic status, acculturation level, cultural factors, information, support, barriers, satisfaction with care and relationships with health care providers are complex variables that influence risk factors, health behaviors and beliefs about illness, burden, coping responses and QOL outcomes; representing a highly vulnerable subgroup. Results provide a conceptual description of the complex/unpredictable CIPM process to inform practice, lessen treatment-related morbidity and promote physiological/psychosocial adjustment to cancer and treatment effects. Study findings and implications will make important contributions toward improving information dissemination, care delivery, support and survivorship interventions that are culturally sensitive.

116240 (Poster)

EVALUATION OF PATIENT NAVIGATION PROGRAMS FOR CANCER CARE: A TRIANGULATION APPROACH.

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Significance and Background: Patient navigation has been shown evidence of overcoming barriers to cancer care. Cancer is the leading cause of death in Taiwan. In reducing the cancer burden, nation-wide cancer patient navigation programs with the support of the Bureau of Health Promotion were developed in hospitals. Understanding how these programs were operated can inform for future development.

Purpose: This study aimed to describe the navigators' experience in implementing the cancer patient navigation programs and the process of cancer patient navigation.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: A qualitative inquiry supplemented with survey was used to understand the experience in implementing program and navigating for cancer care from cancer navigators' lens.

Methods and Analysis: Open-ended, taped interviews were conducted to elicit the program implementation and navigation process for cancer patients. Contextual data related the characteristics of navigation were also collected by using a self-designed questionnaire. A total of 31 navigators from 31 hospitals participated in this study. Data of taped interviews was transcribed word-by-word and was analyzed by using constant comparative method.

Findings and Implications: Participants were either trained as oncology nurses or social workers. A majority of them were female, had college-or-above professional education and practiced in the ambulatory settings of medical centers which having more than 2000 new cancer registries yearly. Three patterns of cancer patient navigations were identified; and a great majority was operated as a team of nurses/social workers with volunteers and other professionals. The navigators described the patient navigation as a mean to facilitating in cope with the cancer and problem solving for cancer care, which were characterized as caring, coordinating and resourcing. The implementation of cancer patient navigation program was "a start from scratch" and "a process from unknown to dissemination;" and characterized as resourcing, networking, collaboration, reforming and creativity. Close to half of navigators reported planning, networking or disseminating was the first common task in their daily practice. The findings of this study stressed the importance of collaborative, team-work and commitment to quality cancer care for the success of cancer navigation program.

116423 (Poster)

BREAST CANCER PATIENTS' EXPERIENCES IN CONTINUING TREATMENT. Miwa Yamate, RN, PhD, National College of Nursing, Kiyose-shi, Japan

Underwriting or funding source: The YASUDA Medical Foundation

Significance and Background: Among Japanese breast cancer patients, gradual increases in both the number of patients and the death rate have been observed since 1990.

Purpose: The purpose of this study was to describe how breast cancer patients perceive "breast cancer" and whether they continue breast cancer treatment.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Phenomenological approach

Methods and Analysis: A qualitative descriptive study was conducted using a phenomenological approach. Subjects were four breast cancer patients who have undergone surgery and chemotherapy and are currently receiving outpatient radiation therapy. Data were collected using semi-structured interviews and analyzed based on Colaizzi's method. The protocol of this study was approved by the research ethics committee of our hospital and each participant's consent was obtained after receiving an explanation that their identities would remain anonymous.

Findings and Implications: Interview data revealed that breast cancer patients perceive breast cancer as "something that controls my life," "something that tells me life is not forever," "something that makes me see the suffering and joy in human life," and "something that lets me know I am important to my family." Six experiences in continuing breast cancer treatment were also identified: "Fighting cancer with an attitude of detachment in 'patient' mode," "Fighting to rid myself of deep 'apprehension'," "Overcoming various things each day to get better while feeling something behind that is about to get me," "Repeating positive words and pushing ahead," "Living for my family," and "Fighting together with my family, the place I most belong." The present findings indicate that breast cancer patients abhor the fact that they have developed breast cancer, while also realizing that breast cancer has brought some "good." Breast cancer patients continue treatment while fluctuating between these two emotions and fighting together with their family to cure the breast cancer and for the sake of the family.

116672 (Poster)

ATTITUDES, KNOWLEDGE AND BEHAVIORS AMONG DOCTORS AND NURSES REGARDING END OF LIFE DECISIONS. Ahuva Spitz, RN, MPA, Sharei Tzedek Hospital, Jerusalem, FL; Rivka Nikkhou-Abeles, RN, MA, Sharei Tzedek, Jerusalem, FL; Pnina Sharon, RN, MA, Hadassah, Jerusalem, FL; Chana Kasten, RN, MA, Hadassah, Jerusalem, FL

Significance and Background: Tremendous developments in medical science and technology have increased life expectancy thus; chronically ill patients live longer. In Israel today, most elderly people die in hospitals. This data, together with the implications of a growing elderly population, forces medical staff to deal with end of life issues on a daily basis especially when lacking legal guidelines that address treatment of terminally ill patients. Patients and their families are faced with various choices regarding medical care that precedes death ranging from palliative to aggressive treatment. However, the ability to prolong a terminally ill patient's life does not necessarily improve the quality of his/her life. The elderly, age (over seventy five), aside from having suffered a chronic condition, are prone to age associated disorders, which may affect their physical and mental functioning. This raises the question whether acute mental and psychological suffering justifies prolonging an elderly terminally ill patient's life. This dilemma encompasses various aspects such as: medical, ethical, sociological, legal, financial, as well as religious concerns. The conflict lies between patient's autonomy and life sanctity. In the past two decades, patient's autonomy has been valued as an essential element regarding treatment decisions. Therefore, medical teams who care for the elderly in the hospital settings are faced with questionable challenges.

Purpose: This research paper intends to reveal differences in attitudes, knowledge and behaviors of doctors and nurses regarding end of life treatments decisions. Findings will hopefully serve as a basis for intervention when providing palliative care.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Patient's autonomy in decision making.

Methods and Analysis: A quantitative analysis of convenient sample included one hundred ninety six questionnaires that were filled by doctors and nurses working in internal medicine wards of 3 major hospitals in Jerusalem. The questionnaire included twenty eight closed questions regarding attitudes, behaviors and knowledge concerning end of life issues.

Findings and Implications: Significant differences between doctors and nurses were found regarding the kind of intervention implemented in end of life case scenarios. Specifically, our findings show that nurses felt less equipped than the doctors with communication skills, emotional support to patients making end of life decisions. Additionally, nurses as a group were strongly in favor of the use of feeding tubes at the end of life as a sustenance measure. We found marked differences between the 3 hospitals regarding palliative care. Two aspects were significantly different: 1. morphine is administered intravenously rather than through ET tube. 2. Terminally ill patients are attempted to be fed semi solids more so than no feeding options. The literature describes doctors as tending to favor treatments that prolong lives of terminally ill patients while showing less inclination to relate personally to patients, while nurses tend to be more communicative and prefer not to intervene medically.In contrast, our findings reveal that doctors seem to feel more equipped in handling end of life than nurses, including the ability to discuss imminent death with patients and families. Our study shows that there is a marked disparity between the knowledge and attitudes between doctors and nurses, which indicate a need to provide nurses with better tools to deal with terminally ill patients concerning end of life dilemmas.

116749 (Podium)

PRIMARY CARE PROVIDER PERSPECTIVES AND KNOWLEDGE OF SURVIVORSHIP CARE PLAN INFORMATION IN A COMMUNITY HOSPITAL SYSTEM. Sara Hollstein, MSN, CRNP, AOCNP®, ANP-BC, Paoli Hospital Cancer Center, Paoli, Pennsylvania; Michael B. Dabrow, DO, FACOI, FACP, Paoli Hospital Cancer Center, Paoli, Pennsylvania; Heather Curry, MD, Paoli Hospital Cancer Center, Paoli, Pennsylvania; Sara J. Reeder, PhD, RN, Villanova University College of Nursing, Main Line Health System, Wynnewood, Pennsylvania; Bettyanne Sunderland, BSN, RN, Paoli Hospital Cancer Center, Paoli, Pennsylvania; Jocelyn M. Hoopes, BA, MLIS, Paoli Hospital Cancer Center, Paoli, Pennsylvania

Significance and Background: An estimated 13.7 million cancer survivors are being cared for in the United States, an estimate expected to rise to 18 million by 2022. Only 27% of cancer survivors continue follow-up with their oncologists after 5 years, making it vital to seamlessly and completely transfer information to primary care providers (PCPs). Transition to primary care following adjuvant treatment is one focus of the IOM's recommendations, yet there is limited data on the knowledge and preferences of community setting PCPs.

Purpose: This study explores the knowledge deficit regarding IOM recommendations and evaluates PCP preferences for development and distribution of community cancer center survivorship care plans.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The IOM, Cancer Survivorship Care Planning Fact Sheet (2005) was the framework for question development.

Methods and Analysis: A computer-based questionnaire was emailed to 301 community PCPs across a four hospital health system. Fifteen questions focused on the perspectives of the IOM proposed care plan recommendations. Eleven questions focused on the PCP comfort level in providing care of common post treatment side effects. The questionnaire employed both checkbox scales and sections for open-ended responses detailing care plan and distribution preferences.

Findings and Implications: This study affirms the importance of survivorship care planning. Ninety-four percent of community PCP responders found "very useful" the receipt of information on common patient questions regarding treatments, recurrence, and related side effects. A notable finding is that 68% of responders want to follow their patients every 3-6 months in the first 5 years. This suggests that community PCPs may want a more active role in survivorship care. The importance of past and current clinical trial participation is identified as an area for education. Demographic stratification of future data could help identify targeted topics for survivorship education. Finally, standardization of survivorship care plan format and distribution deserve further consideration.

116951 (Podium)

A PROSPECTIVE STUDY INVESTIGATING ADHERENCE AND CONFIDENCE WITH VAGINAL DILATOR USE FOLLOWING PELVIC AND INTRAVAGINAL RADIOTHERAPY.

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Underwriting or funding source: Geri and ME Funding

Significance and Background: Vaginal stenosis (VS) is a late effect of pelvic radiation (PR) and intravaginal brachytherapy (IVB), with prevalence estimated to be as high as 88%. VS can negatively affect sexual health and impair pelvic examination. Dilator use is recommended to minimize VS; however, previous studies have reported poor adherence.

Purpose: This prospective study explores confidence and adherence with dilator use after structured patient teaching and addresses ONS Research Agenda items "Cancer symptoms and side effects" and "Late effects of cancer treatment."

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The Theory of Self-efficacy contends that people who are confident they can carry out an action are more likely to attempt and successfully do so. This study explored the relationship between patient-reported confidence and dilator use.

Methods and Analysis: Methods: Women with rectal, anal, and endometrial cancers, treated with PR and IVB, were taught to use a dilator 3x/week and record adherence in weekly diaries for 12 months. Confidence with dilator use was reported on a scale of 0-10 (0=not confident, 10=confident). Analysis: Fisher's exact and Kruskal-Wallis tests were used to assess differences among groups, and Pearson correlation was calculated to determine the relationship between confidence and adherence.

Findings and Implications: Results: Among 108 participants, aged 28-81, there was minimal demographic variation by disease site. Mean adherence with dilator use over a 12 month period was 42% (sd 34%, 95% Cl:36%- 49%). Adherence at 3x/week was highest (45%) at 1 month, declining to 5% at 12 months. Disease, treatment sequence, and chemotherapy were significant predictors of adherence. Patients reported a variety of reasons for non-adherence. Average confidence improved after teaching, from 7.1 (sd 3.8) at baseline to 9.4 (sd 1.4), and was sustained for 12 months at 9.7 (sd 1.2), $p<0.0005$. There was no correlation between confidence and adherence during the 12 months. Implications: Despite the positive impact of structured teaching on confidence, adherence with 3x/week dilator use was poor. Teaching alone may not be adequate to change behavior. Adherence is a complex phenomenon, and innovative psychoeducational interventions may be needed. Further research is necessary to better understand how nurses can effectively influence adherence and determine the optimal frequency of dilator use to minimize VS.

117709 (Poster)

DISPARITIES IN BREAST CANCER PATIENTS' PERCEPTIONS OF NURSING CARE QUALITY.

Shannon Harrington, PhD, MSN, BSN, RN, Old Dominion University, Norfolk, Virginia

Significance and Background: In the United States, breast cancer is the second leading cause of cancer-related deaths in women; the incidence is highest in Whites, while African Americans (AA) have higher mortality rates. Current research states AA women may be at risk for receiving lower quality care because of the interrelationships of socioeconomic disparities in income, education, access, economic and social barriers to high quality care. For AA women with breast cancer, perceptions of quality care may affect whether they continue seeking healthcare, which could potentially have adverse effects on their health outcomes.

Purpose: The purpose of this study was to determine if differences in breast cancer patients' perceptions of the quality of nursing care received in the outpatient clinical setting were based on race.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: An adapted Quality Health Outcomes Model was the conceptual framework used and Sandelowski's Qualitative Description was the philosophic frame of reference for the qualitative component.

Methods and Analysis: The study used a triangulation methodology that included a demographics questionnaire, medical record review, and Oncology Patients' Perceptions of the Quality of Nursing Care Scale (OPPQNCS) as the quantitative components, and a qualitative interview. The sample consisted of 52 study participants, 26 African American and 26 White. During data analysis, a rich description of the entire samples' perceptions and demographics were obtained and the African American women's responses were compared with White women's responses.

Findings and Implications: Results indicated that there were no statistically significant differences in perceptions of quality of nursing care based on race. Overall, the study participants' had high perceptions of care and gave specific examples in the qualitative interviews supporting the findings obtained from the quantitative tool. Factors that were found to influence perceptions of quality of nursing care included extensive waiting times during appointments, and nursing skill and technique when providing treatments. This study provides an understanding of breast cancer patients' perceptions of nursing care quality by describing a relationship among demographic characteristics, responses on the subscales of the OPPQNCS (individualization, coordination, responsiveness, and proficiency) and verbal explanations of good and poor nursing care. In summary, further research needs to be conducted on this topic, among this specific patient population.

117975 (Poster)

THE EFFECT OF CANCER PAIN MANAGEMENT GUIDELINES' APPLICATION IN CANCER EMERGENCY ROOM.

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Significance and Background: The most common complaint made by cancer patients staying at Emergency Room(ER) in South Korea was of their pain. Even if the cancer pain could be controlled effectively through proper program and rules, the pain control didn't go smoothly due to medical personnel's lack of knowledge about the guidelines, prejudice about opioid analgesic and the absence of the useful pain management program.

In addition, cancer patients staying at ER were not duly offered prompt pain management and continuous evaluation of their pain, and the research about the actual condition of pain has not been conducted fully.

Purpose: To investigate the effect on application of cancer pain management guidelines to control pain in CER.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The cancer pain management guideline in CER is based on World Health Organization(WHO) guidelines for cancer pain.

Methods and Analysis: This study was a retrospective descriptive one. Before application, data were collected by analyzing the Electronic Medical Record(EMR) in September, 2011, and After application in February, 2012. The subjects of this study consisted of 231 patients (pre-application group 83, post-application group 148), who stayed over 24 hours and complained of pain higher than Numeric Rating Scale(NRS) score 4. The post-test was conducted after educating the nurses about the application of the pain management guidelines in EMR.

Findings and Implications: The number of patients reaching the treatment goal score(less than NRS score 3) was increased from 33.7% to 62.8% as well as pain intensity decreased from 3.42±2.77 to 2.51±2.49. Furthermore, the estimated time to reach the treatment goal was shortened from 57.59 hours to 29.04 hours. Arrival-assessment of pain intensity was improved from 54.2% to 97.3%, regular pain assessment from 45.8% to 96.6% and reassessment after medication from 7.2% to 44.6%.It is suggested that further efforts be made to develop the pain management program and to provide the physicians and nurses with intensive education about the pain management guidelines for systematic and effective pain management.

118022 (Poster)

DISTRESS, DEPRESSION, ANXIETY, AND SPIRITUAL NEEDS OF PATIENTS WITH STOMACH CANCER.

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Significance and Background: To investigate relationships among distress, anxiety, depression and spiritual needs of hospitalized patients with stomach cancer.

Purpose: To investigate relationships among distress, anxiety, depression and spiritual needs of hospitalized patients with stomach cancer.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Holistic care theory.

Methods and Analysis: Design: Descriptive survey. Setting: A tertiary care hospital in Seoul, South Korea. Sample: The participants were 120 in-patients with stomach cancer who received surgery or chemotherapy. Methods: Data were collected by self-reported survey from December 2010 to February 2011. To measure emotional state and spiritual needs, three scales were used: Distress management version 1. 2005.(NCCN), Hospital Anxiety and Depression Scale(HADS), and Spiritual Needs Scale. The data were analyzed using SPSS 19.0, specifically descriptive statistics, t-test, ANOVA, Scheffe's test, and Pearson's correlation coefficients. Main Research Variables: Distress, anxiety, depression, and spiritual needs.

Findings and Implications: Findings: Distress was higher in patients who received surgery (p=.010), ECOG performance status 2 and 3scores (p<.001), cancer stage 2 (p=.007). Anxiety was significantly influenced by ECOG performance status (p=.016) and cancer stage (p=.021). Depression was higher in patients without spouse and children (p=.039), not having religion (p=.038), ECOG performance status 3 score (p<.001) and cancer stage 3 (p=.040). Spiritual needs were higher in patients with master's degree or higher (p=.038), those with religion (p<.001), cancer stage 3 (p=.048), in their 30's age (p=.014), and those within a year of diagnosis (p=.024). Distress showed positive correlations with anxiety and depression (r=.49, p<.001, r=.44, p<.001). Anxiety showed positive correlations with depression (r=.59, p<.001), while depression showed negative correlations with spiritual needs (r=-.25, p<.001). Conclusion: Those findings show that hospitalized patients with stomach cancer experienced distress, anxiety, depression and high spiritual needs. Therefore, nursing interventions for emotional and spiritual support need to be developed for stomach cancer patients. Implications: Screening of distress, anxiety, depression and spiritual needs in cancer population may lead to interventions to cope with emotional and spiritual problems.

118247 (Podium)

BREAST NURSE NAVIGATOR ROLE IMPACTS TIMELINESS OF CARE FOR BREAST CANCER PATIENTS.

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Significance and Background: Breast cancer care, which is delivered by multiple providers over an extended period of time within an already fragmented health care system, has led to gaps in the care process. The Breast Nurse Navigator role seeks to address those gaps and improve patient outcomes. Research is needed to measure the effectiveness of the Breast Nurse Navigator role on improving patient outcomes, thus timeliness of care was measured to that end.

Purpose: The purpose of the study is to evaluate the impact of the Breast Nurse Navigator role on the timeliness of care across the breast cancer treatment continuum for the breast cancer population served in our health care system. Our study addresses several components of the ONS Research Agenda, but especially in the area of "nurse-sensitive patient outcomes" in that the study is able to quantify the effectiveness of nursing interventions to promote improved patient outcomes. It also touches on both psychosocial and family issues as well as symptom management concerns, mainly in the way that they contribute to impeding needed care. In addition, our study encompasses the themes of patient-centered care with the breast nurse navigator's ability to provide individualized interventions that help patients overcome barriers to receiving needed care, which addresses both individual and population issues and supports adherence to care.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Jean Watson's theory of Human Caring forms the theoretical basis for our study. Dr. Watson proposed that a time in nursing would come when nurses would serve as a point person for patients. She also proposed that it would revolutionize the health care delivery model, since she also foresaw that patients would have multiple providers involved in their care. This is especially true for breast cancer patients who could have up to six providers involved in their care. The idea of breast cancer nurse navigation meets this need in healthcare today and continued research is needed to further develop and substantiate the role.

Methods and Analysis: The Breast Nurse Navigator (BNN) contacted patients within 2 weeks of their breast cancer diagnosis and offered ongoing support and guidance to them. The BNN performed a needs-based assessment with each interaction, which resulted in individualized interventions. Those interventions included providing education, emotional support, advocacy, and help with eliminating barriers to needed care. A retrospective study was conducted comparing breast cancer patients who received BNN services (fiscal years 2010, 2011 and 2012) with those patients who received their care prior to the initiation of our BNN program (fiscal year 2009). Specific intervals were evaluated to assess timeliness of care for each time period; the number of days from breast cancer diagnosis (ductal carcinoma in situ or invasive breast cancer) to first treatment (surgery or chemotherapy), the number of days from surgery to the initiation of first adjuvant treatment (chemotherapy, radiation, or antiestrogen therapy). Data was collected from the cancer registry, the MiBOQI database, nurse navigation worksheets, and the patients' electronic medical records.

Findings and Implications: For 2010, timeliness of care from diagnosis to first treatment was improved by 17% overall (reduction of 6.3 days), by 19% for invasive breast cancers (reduction of 6.6 days), and by 29% for those needing neoadjuvant chemotherapy. The overall number of days to first adjuvant treatment was improved by 19% (reduction of 8 days). Statistical analysis confirmed a significant reduction in the number of days from diagnosis to first treatment for patients receiving navigation (t(396) = -3.872, P <.001). Results for 2011 and 2012 are pending. Preliminary results for 2011 are similar to 2010 and we expect the same for 2012. We found that the role of BNN, as implemented at our facility, serves as a valuable resource for optimizing patient outcomes by significantly improving the timeliness of treatment and supportive care for our breast cancer patient population, through serving as a point person and by; providing education, offering support, removing access barriers, providing timely coordination of care, and by meeting individual patient needs. More research is needed in the area of navigation services due to the variability of navigation programs and to further support the body of evidence available on the role.

118415 (Podium)

THE IMPACT OF AN INTEGRATED APPROACH OF CARE ON EARLY FEEDING FOLLOWING SURGERY FOR KNOWN OR SUSPECTED CERVICAL, ENDOMETRIAL OR OVARIAN CANCER.

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Underwriting or funding source: Abbott Northwestern Hospital Foundation

Significance and Background: Every year there are over 72,700 new cases of cervical, ovarian, and endometrial cancer and standard therapy includes surgical intervention. Despite an evidence base, usual progression of the post-operative diet is clear liquids to full liquids to soft to a regular diet the morning after surgery. Thus an opportunity for providing nutrition during a vulnerable time is often missed.

Purpose: The purpose this study was to determine the effect of a "bundled" approach to care (i.e., early feeding the evening of surgery, early ambulation, integrative therapies, epidural pain management, standardized patient education) on self-report of nausea and time to first meal in women having surgery for known or suspected cervical, ovarian, and/or endometrial cancer. It is consistent with ONS Research Agenda in focusing on symptom management of nausea to promote nutrition.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Levines' Converstation Model provided the framework. By intervening and alleviating or preventing nausea, the patient's energy can be focused on healing.

Methods and Analysis: A pre-post test design was used to examine the effect of a bundled approach to care. The Rhoades Index of Nausea, Vomiting and Retching (INVR) was used to examine nausea. Time to first meal was measured from admission to the patient care unit to the first meal. Descriptive statistics were used to describe the sample, time to meals, and nausea, vomiting and retching. The Welch's t-test was use for interval data and chi-square for categorical and ordinal data when comparing the pre-intervention and control groups.

Findings and Implications: Time to first meal was 6 hours versus (vs.) 30 hours (p<0.0001); second meal 18 hours vs. 39 hours (p<0.001); third meal 24 hours vs. 47 hours (p<0.0001) comparing the intervention group (n=58) to control (n=58), respectively. The INVR averaged 2.15 (POD 1) and 2.5 (POD 2) on a possible scale of 0-32 with higher scores meaning more distress from INVR. A bundled approach to care that includes early feeding has minimal risk and provides nutritional support during a critical time of healing in women undergoing surgery for known or suspected cervical, ovarian, and/or endometrial cancer.

118432 (Poster)

SELF-CARE CHALLENGES AMONG PATIENTS WITH HEMATOLOGICAL MALIGNANCIES AND COMORBID CONDITIONS.

Marilyn Hammer, PhD, DC, RN, New York University, New York, New York; Frances Cartwright, PhD, RN, AOCN®, New York University, New York, New York; Gail Melkus, EdD, C-NP, FAAN, New York University, New York, New York

Underwriting or funding source: New York University Cancer Institute

Significance and Background: Individuals with cancer often present with chronic comorbid conditions, commonly type 2 diabetes (T2D) and/or cardiovascular disease (CVD) prior to or following the start of treatment for cancer. The associations between cancer, T2D, and/or CVD are complex and often bidirectional. Diabetes places CVD patients at risk for increased morbidity, mortality, and health care costs. Similarly, cancer can confound CVD and diabetes. Comorbidities also strongly impact the patient's daily life through the aggregated symptom experience of multiple diseases.

Purpose: To assess self-care needs among patients with hematological malignancies who also have T2D and/or CVD and to plan future implementation studies based on findings to improve outcomes in patients with cancer and comorbidities.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The Wagner Chronic Care Model, Dodd Symptoms Management Model, Reigel Self-Care Model, and Schilling Diabetes Self Management Model guided the foundation for this study.

Methods and Analysis: A mixed methods pilot study (N = 30) incorporating a quality-of-life measure (SF36v2), self care measures (Summary of Diabetes Self-Care Activities, Self Care of the Heart Disease Index), a sociodemographic questionnaire, the Charlson Comorbidity Index, and a 30-minute recorded interview to capture quality-of-life and self-care needs of patients with chronic comorbid conditions is being conducted. Descriptive statistics and non-parametric Spearman rho correlations are being used to analyze the quantitative data. Themes that emerge from the qualitative data will then be compared to the quantitative data using triangulation methods.

Findings and Implications: A preliminary analysis revealed a predominately older adult population (mean age 75.5 years old; range 63 – 86 years) whose symptoms drive their primary concerns more than the diagnoses themselves. It was also difficult, at times, to distinguish which condition was responsible for which symptoms. A secondary challenge for these patients was coordination of healthcare providers for management of each of their conditions. Continued investigation for improved understanding of these co-occurring chronic conditions and subsequent interventions to mitigate symptoms and improve care coordination is critical.

118486 (Poster)

PREDOMINANT BARRIERS TO UTILIZING MAMMOGRAMS BY AFRICAN AMERICAN WOMEN.

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Significance and Background: Mammography is the best way to detect breast cancer at an early stage and increase the likelihood of successful treatment. The incidence of breast cancer in African American women (116.1/100,000), is less than that of Caucasians (125.4/100,000), however African American women have higher breast cancer mortality rates (32.1/100,00) compared to Caucasian women (23.9/100,000).

Purpose: The purpose this research is to compare perceived barriers to mammography among African American women by analyzing data findings of the Mammography Barriers Checklist (MBC) in 2001 in comparison to findings eight years later in 2009.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This research uses the Health Belief Model as the theoretical framework and identifies perceived barriers to obtaining mammograms in African American Women (AAW).

Methods and Analysis: In this study, original data findings of the Mammography Barriers Checklist (MBC) in 2001 will be comparison to findings eight years later in 2009. The Mammography Barriers Checklist consisted of 23 questions each with three possible answers: not a problem/reason, less of a problem/reason or big problem/reason. Vetted and trained community health consultants collected the data in various settings in the east Texas cities of Lukfin, Nacogdoches, Mount Pleasant and Longview.

Findings and Implications: The total sample consisted of 179 African American women ages 35-92. The number one reason cited by AAW in 2009 was "cost of the mammogram (breast x-ray)" whereas in 2001 the number one barrier was "worry the mammogram (breast x-ray) might find cancer." Based on these findings, African American women in Texas perceive cost and worry as the predominant barriers to utilizing mammograms to detect breast cancer. Oncology nurses are in a unique position to address these barriers by using culturally competent evidence based nursing practices. Affordable access to mammography is essential to decreasing the disparity of breast cancer outcomes in African American women. Discoveries from the MBC can be used to develop culturally responsive interventions that increase utilization of mammography in African American Women and help to decrease mortality.

118695 (Poster)

THE EFFECTS OF GUIDED IMAGERY (IN ADDITION TO STANDARD PAIN MANAGEMENT REGIMEN IN PLACE) ON SELF-REPORTED PAIN LEVELS IN THE ONCOLOGY POPULATION OF PATIENTS WITH CANCER-ASSOCIATED PAIN ON AN INPATIENT MEDICAL-SURGICAL UNIT.

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Significance and Background: Pain management is a significant issue for patients with cancer diagnosis. Improvement of the pain management experience for cancer patients has been an ongoing concern for healthcare providers, as well as for patients and their family members and/or caregivers. Pain management improvement for the population of inpatients with current cancer diagnosis and cancer-related pain is the practice issue that this research project was designed to address. The rationale for this study is that improvement of the pain management experience for this population will enhance quality of life as well as incorporate holistic care into the process.

Purpose: The specific aim of this project was to evaluate the effects of a 40 minute audio guided imagery intervention (in addition to standard pharmacological pain management) on the self-reported levels of pain as reported by participants, in comparison with a control group (receiving standard pharmacological analgesic regimen only). The purpose of this study is in congruence with the ONS Research Agenda (2009-2013), specifically: B.2. Develop and evaluate systems of care that integrate scientific knowledge of symptoms and side effects into oncology clinical practice. B.2.2. Adapt symptom interventions with proven effectiveness and evaluate their feasibility in the clinical setting and effect on patient outcomes.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The nursing conceptual framework for this study is the philosophy of science and caring developed by Jean Watson. This theory asserts that the foundation of nursing is the relationship between the nurse and the patient, and that the basis of nursing care is health promotion, restoration, illness prevention, and quality of life. This framework reflects an altruistic and holistic approach to nursing that is congruent with the current trend toward the patient as self manager, in charge of their own health and responsible for their own decision-making process. This is apppropriate for the purpose of this study as it supports investigation of implementing complementary therapy and allows for the patient to maintain the ultimate decision making capacity. Beyond providing education, information, and support, the relationship is one of cooperation and healing.

Methods and Analysis: A prospective random sampling design with an intervention group and a control group was utilized to complete this pre- and post-test pilot study. A control group povides baseline data regarding the efficacy of routine regimens for pain management in the inpatient setting and supports the need for introduction of integrative adjunct therapies for improvement.

The main research variable/measurement instrument used to evaluate effectiveness was the self-reported 0-10 pain scale. The plan for data analysis will be comparison of pre- and post-test scores for controls in comparison to the intervention group. This is being conducted and will be prepared for presentation at Congress (currently in progress).

Findings and Implications: While final analysis of data has not been completed, preliminary findings support feasibility and suggest that further research is necessary (larger randomized controlled trial to further test the guided imagery intervention and/or address clusters of symptoms, and/or a qualitative study). It is anticipated that there will be a statistically significant difference in the self-reported pain scales of patients in the control and intervention groups. Anecdotal findings support improved patient outcomes.

118779 (Poster)

COMPARING PROTEOMIC MARKERS AND FATIGUE IN MEN RECEIVING DIFFERENT LOCALIZED RADIATION MODALITIES FOR NON-METASTATIC PROSTATE CANCER.

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Underwriting or funding source: This study is fully supported by the Intramural Research Programs of the National Institute of Nursing Research of the National Institutes of Health, Bethesda, Maryland.

Significance and Background: Fatigue worsens one month post-localized radiation therapy (RT) for NM-PC. Our recent, initial findings show that differential expression of two proteins (apolipoprotein E (ApoE) and transthyretin (TTR or prealbumin)) was associated with fatigue during localized RT for NM-PC. Upregulation of ApoE has been associated with neurodegeneration, a mechanism associated with fatigue. TTR is a negative acute phase protein; therefore, it is down regulated during an acute stress response, a phenomenon manifested by fatigue. Verifying the association between these proteomic markers and fatigue will further highlight their potential role in fatigue development.

Purpose: The purpose of this study is to compare fatigue levels and protein (ApoE and TTR) concentrations from plasma samples of men receiving different localized radiation modalities for NM-PC.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The Symptom Management Model proposed by the University of California San Francisco, School of Nursing provides the conceptual framework for this study. This model proposes that effective symptom management is dependent on three interrelated core concepts: symptom experience, symptom management strategies, and outcomes. This study aims to understand the participants' symptom experience and explore potential biomarkers underlying fatigue. This information will help guide future research related to the development of fatigue management strategies and in defining fatigue management outcomes.

Methods and Analysis: Men receiving four different treatment modalities (cyberknife, cyberknife + intensity-modulated radiation therapy, EBRT, EBRT post-prostatectomy) for NM-PC will be age, race, and disease risk-matched to create four homogenous subsets for the proteomic analyses ($n = 4$ for each group, for a total $N = 16$). Fatigue will be assessed using the Functional Assessment of Chronic Illness Therapy-Fatigue instrument. Plasma samples will measure ApoE and TTR concentrations using Western Blot analyses. Student t-tests will determine mean differences of fatigue and protein expressions between the groups. A $p < 0.05$ will be considered significant at a 95% confidence level.

Findings and Implications: The study findings will provide a better understanding of the fatigue symptoms experienced by men receiving different types of localized RT for NM-PC. It will also provide pertinent information of possible biomarkers that can explain the etiology behind fatigue development. This information would be a major advance in understanding fatigue.

118788 (Poster)

ORAL CHEMOTHERAPY: MEETING THE CHALLENGES OF THIS NEW PRACTICE PARADIGM.

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Underwriting or funding source: Wayne State University College of Nursing Lily H. Siegert Endowed Faculty Research Award

Significance and Background: Recently, many new oral chemotherapy medications have been developed. Although oral chemotherapy has many benefits, its use has also raised areas of concern, particularly about treatment adherence and patient safety. A substantial body of literature states that patient education, reinforcement, and follow-up are critical to treatment success with oral chemotherapy, but little is known about current practice in these areas.

Purpose: The purpose of the study was to survey a national sample of oncology nurses regarding their practices and resources to insure the safety of their patients on oral chemotherapy medications and to identify common barriers to treatment adherence.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This study is grounded in the problem-solving process in which the first step is to identify the problem and establish its significance.

Methods and Analysis: Electronic surveys were sent to 5000 members of the Oncology Nursing Society in 2012. The 20 content-validated investigator-generated survey questions included 19 forced choice items and one item for free text. Descriptive statistics and content analysis were obtained from the data.

Findings and Implications: We received responses from 656 (13%) nurses working in outpatient settings. The sample was primarily female (98%), white (93%), and experienced in oncology nursing (53% over 15 years). Almost half of the sample (44%) reported problems with identifying patients on oral chemotherapy and notifying nurses that patient education was needed. Cost was identified as the greatest barrier to treatment adherence (80.9%), followed by adverse effects (71.7%). Qualitative responses revealed that for many settings, there are erratic procedures and inadequate communication among doctors, nurses, patients, and pharmacists. Nurses confirmed that patients' education needs are not being met consistently, and some reported that they themselves had inadequate education regarding these new drugs. Patients who take oral chemotherapy assume great responsibility for self-care. They must follow medication schedules precisely, recognize and monitor themselves for adverse effects, and report those effects if they occur. They need thorough, detailed education and reinforcement of teaching to master these perilous responsibilities. Findings from this study provide evidence that systematic and reliable procedures for patient education, documentation, and interdisciplinary communication are urgently needed.

118800 (Poster)

EFFECTIVE COMMUNICATION: THE KEY TO DISABLING DISRUPTIVE BEHAVIORS.

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Significance and Background: Disruptive behaviors negatively impact job satisfaction, performance, cost of patient care and incidence of medical errors. The negative impact of disruptive behaviors in the workplace environment has been explored in many high stress acute care practice settings but not in oncology care.

Purpose: The purpose of this study was to assess nursing staff perceptions of disruptive behaviors presence and to determine if an educational intervention would improve staff's self-efficacy when facing disruptive behavior on the inpatient oncology unit.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Pearson, Anderson and Wegner's framework on workplace incivility was adapted as the conceptual model to apply to disruptive behaviors.

Methods and Analysis: This two-part intervention study utilized quantitative and qualitative survey methodologies. Part 1-Twenty nine staff members completed a web-based, anonymous Disruptive Behaviors Staff Survey (Cronbach's alpha 0.86) evaluating staff relationships, types of disruptive behaviors witnessed or experienced, the impact of the behaviors, and barriers to addressing disruptive behaviors (data analysis, Pearson's r). Part 2 – Twenty-five staff members voluntarily participated in a four-hour adapted Crucial Conversations class designed to improve communication skills for confronting disruptive behaviors and build staff's confidence. Participants completed the Self-Efficacy to Address Disruptive Behaviors Scale (SADBS) immediately before, after, and at six months following the class. SADBS data from these three time points was analyzed using paired t-tests.

Findings and Implications: Part 1—Staff survey analysis showed strong correlations between disruptive behaviors and decreased staff satisfaction, increased workplace stress, decreased staff collaboration, and increased staff perceptions of poor patient outcomes. Participant narratives suggested improvement in communication skills would address the disruptive behaviors. Part 2—The staff perceptions of the SADBS increased significantly from a mean of 49.08 to 70.67 out of a possible score of 100 ($p < 0.05$). In a six-month follow-up the SADBS further increased to a mean of 75.35. This small scale study found that while disruptive behaviors exist on the oncology unit, the adapted Crucial Conversations class in effective communication improved the staff's self-efficacy to address disruptive behaviors. Ongoing identification of disruptive behaviors in the oncology environment is imperative in maintaining high-quality, safe patient care. Interventions to address disruptive behaviors and promote confidence should include education in effective communication skills.

118984 (Poster)

DEVELOPMENT OF A MULTI-NATIONAL CROSS-SECTIONAL STUDY TO DETERMINE DISEASE BURDEN OF CANCER PATIENTS SUFFERING FROM ANEMIA IN USUAL CARE AND THEIR CAREGIVERS.

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Underwriting or funding source: Amgen

Significance and Background: Chemotherapy-induced anemia (CIA) is prevalent in cancer patients and may contribute to overall patient fatigue, declining functional capacity and health-related quality of life (HRQoL), and increasing need for caregiver assistance. Few studies analyze CIA burden on cancer patients and their caregivers relative to anemia severity.

Purpose: After stratifying patients into three Hb levels (<9.0 g/dL, 9.0 to 9.9 g/dL and ≥10.0 to <12.0 g/dL), this study will examine mean differences of: 1) caregiver time spent on assistance with activities and instrumental activities of daily living; 2) patient fatigue (Functional Assessment of Cancer Therapy-Fatigue); 3) caregiver strain and productivity (Work Productivity and Activity Impairment Questionnaire and Zarit Burden Interview); and 4) patient HRQoL (12-item Short Form Survey).

Conceptual or Clinical Model/Philosophic or Theoretical Framework: More anemic patients may experience greater fatigue than less anemic patients. Caregiver burden and time spent on caregiver activities may increase with greater patient fatigue/lower Hb level.

Methods and Analysis: This ongoing cross-sectional survey study in nine oncology centers in the United States, Italy, and France is among anemic adult cancer patients receiving chemotherapy and their caregivers. We intend to enroll 450 caregiver-patient pairs (150/country; 50/Hb category per country) by December 2013. Consenting pairs will complete surveys with socio-demographic and objective-related endpoint questions. Descriptive statistical analyses of survey and medical records will include: frequency and percentage (categorical variables), and number, mean, median, range, standard deviation, and 95% confidence intervals (continuous variables), by pre-specified Hb groups.

Findings and Implications: As of August 2012, 40 pairs were enrolled with Hb level breakdowns of: <9.0 g/dL (n=1); 9.0 to 9.9 g/dL. (n=12); and ≥10.0 to <12.0 g/dL (n=27). Most patients and caregivers were female (77.5% and 62.5%, respectively), had less than a college degree (82.5% and 72.5%, respectively), and were older (mean age 62.5 and 60.5 years, respectively). Some patients and caregivers had paid/unpaid work or school obligations (50% and 57.5%, respectively). Among patients, 87.5% report some restrictions in physical or self-care ability. Upon completion, study data will add to literature on caregiver/patient burden of illness and allow healthcare providers, patients, and caregivers to make more informed decisions related to patient/caregiver needs.

119028 (Podium)

CYTOTOXIC CHEMOTHERAPY INDUCES HYPOTHALAMIC INFLAMMATION AND SUPPRESSION OF OREXIN NEURON ACTIVITY: A POTENTIAL MECHANISM OF CANCER TREATMENT RELATED FATIGUE.

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Underwriting or funding source: NRSA from NIH-National Institute of Nursing Research to K.B.W. to fund portion of doctoral education.

Significance and Background: Cancer patients exposed to cytotoxic chemotherapeutic agents (CCAs) often experience moderate to severe fatigue, which decreases physical and social functioning and quality of life. The cause of cancer treatment related fatigue is unknown. There is growing appreciation it may be similar to fatigue associated with sickness behavior which is caused by increased production of inflammatory cytokines. In rodent models of sickness behavior, fatigue, measured by decreased locomotor activity (LMA), is associated with hypothalamic inflammation and suppression of orexin neuron activity. Orexin neurons stimulate ascending arousal pathways, increase activity, and stabilize sleep-wake states. Although CCAs induce peripheral inflammation and cause fatigue in rodents, it is not known whether they trigger hypothalamic inflammation and suppress orexin neuron activity.

Purpose: The purpose of this study is to determine if CCAs induce hypothalamic inflammation, suppress hypothalamic orexin signaling, and if suppressed orexin signaling is associated with fatigue in rodents. This research aligns with the Oncology Nursing Society research priority on cancer symptoms/side effects to determine physiologic causal pathways of cancer related symptoms.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The framework used is from Wood and colleagues (2006), inflammation as an underlying mechanism of cancer treatment related symptoms, modified to include orexin neuron signaling.

Methods and Analysis: Rodents were injected intraperitoneally with cyclophosphamide, doxorubicin, and 5-fluorouracil (CAF) and brain tissue collected post-treatment. To determine if CCAs induce hypothalamic inflammation, expression of inflammatory cytokine genes was measured by quantitative real time PCR. To determine if CAF suppresses orexin signaling, orexin neurons were immunostained and counted for Fos nuclear expression (a marker of neuron activation). In addition, orexin-A protein was measured in cerebral spinal fluid (CSF). The ability of orexin replacement to ameliorate CAF-induced fatigue was addressed by examining the effect of intracerebroventricular orexin-A injection in CAF-treated rodents on home cage LMA.

Findings and Implications: CCAs increased hypothalamic inflammatory cytokine gene expression and decreased orexin neuron activity in rodents as evidenced by decreased Fos expression in orexin neurons and decreased orexin-A in CSF. Central replacement of orexin-A significantly ameliorated the CAF-induced reduction in LMA. These results indicate orexin signaling is an etiologic mechanism of chemotherapy-induced fatigue and that orexin replacement may decrease fatigue in cancer patients exposed to CCAs.

119064 (Poster)

ILLNESS PERCEPTION OF CHINESE BREAST CANCER WOMEN.

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Underwriting or funding source: J. William Fulbright Foreign Scholarship (PI: Chou FY); Yamagiwa-Yoshida Memorial International Cancer Study Grant (PI: Chou, FY); Office of Research and Sponsored Program, San Francisco State University (PI: Chou, FY)

Significance and Background: Chinese is the largest ethnic group and the number of Chinese-speaking population continues to grow. Cancer has been the leading cause of death in Chinese. Cultural backgrounds can influence cancer patients' health beliefs and behaviors. Cancer patients' illness perception will affect how they manage and cope with their diseases. It is essential to examine perception of cancer among cross-cultural patients.

Purpose: This papers presents the results of illness perception reported from a sample of Chinese breast cancer patients in Taiwan. The purpose of this paper relates to the ONS research priorities as the study results can contribute knowledge to enhance culturally competent care and the development of culturally-appropriate intervention.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The conceptual model of analysis is based on Leventhal's illness representation model and the revised illness perception questionnaire (IPQ-R).

Methods and Analysis: Chinese breast cancer patients (N = 105) were recruited at cancer treatment infusion units of a metropolitan medical center in Northern Taiwan. Participants were asked to complete the Illness Perception Questionnaire (IPQ-R) as part of study instruments in an international collaboration study after they consented to be in the study. The existing Chinese-Traditional version of IPQ-R was used in the study. The results were analyzed based on the IPQ-R dimensions reported by Moss-Morris et al. (2002).

Findings and Implications: The results showed the dimensions of IPQ-R were reported as timeline (17.34 [SD = 5.04]), consequences (16.49 [SD = 4.62]), timeline cyclical (8.89 [SD = 3.52]), personal control (21.87 [SD = 4.73]), treatment control (18.64 [SD = 3.37]), illness coherence (16.99 [SD = 4.49]), and emotional representation (17.25 [SD = 5.26]). The internal consistency reliability (Cronbach's Alpha coefficients) of these dimensions ranged from .73 to .87. Among the possible causes of illness that participants were asked to how much they agree, the top five items were stress/worry, diet/eating habits, family problems/worries, overwork, and emotional state/feeling down. These findings suggested these Chinese/Taiwanese breast cancer women perceived cancer as a condition with moderate chronicity, moderately negative consequences, and low cyclical nature. These findings also suggested these women reported moderately positive beliefs about the controllability of cancer. Further research can explore interventions to assist Chinese/Taiwanese breast cancer women to support them being self-efficacious and promote their quality of life during their cancer treatment and survivorship.

123357 (Poster)

NEUTRASAL® EFFECTS ON ORAL MUCOSITIS IN HEAD AND NECK PATIENTS RECEIVING RADIATION AND/ OR CHEMOTHERAPY.

Jeannie Hamker, RN, Cleveland Clinic Foundation, Cleveland, Ohio

Significance and Background: Nurses can influence head and neck cancer treatment through emphasis on symptom management, patient and family education and care coordination.

Purpose: Head and neck radiotherapy commonly causes acute morbidity, including mucositis, thickened sticky saliva, xerostomia, loss of taste and pain. We compared patient preference for a new supersaturated calcium phosphate oral rinse, NeutraSal to our historical rates for patients using standard salt and soda rinses.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: See method for qualitative data.

Methods and Analysis: 35 patient were evaluated all receiving radiation therapy, 12 of them received both chemotherapy and radiation therapy concurently, for confirmed squamous cell or adenocarcinoma cancer. They were evaluated utilizing NeutraSal. against the standard of care salt and soda rinses. Historical degrees of the side effects using the standard of care option and the NeutraSal. End points were patients performance status pain level using 0 10 dysphagia ability to eat orally weight loss control and mucosities degree. 0 10. Taste return after treatment completed 0 to 2 months. Patients were evaluated weekly during treatment.and approx 4 6 weeks for the acute toxicities and subquent follow up every 4 8 week for 9 months post treatment.

Findings and Implications: Among the 35 patients evaluated, it was found that the oral toxicities associated with radiation therapy were significantly lower than historical averages when NeutraSal was utilized. Xerostomia was reported at approximately 15% during treatment for radiation therapy only,and 35% for those receiving both chemotherapy and radiation therapy. Historical all 100% for both. Limited dysphagia at 4 6wks 20% historical 76% (mean), oral pain of 5% historical 3 month post treatment Historical 35%. Pt reported less opoid use and average of 21 days of oxycodone 5/325 historical of 35 plus days. Patients returned to normal diet and weight being maintained after treatments within 42 50 days. Pt reported an 85% satisfaction rate for neutrasal. Routine use of NeutraSal® oral rinse by patients undergoing head and neck radiation significantly mitigates the severity of acute mucosal toxicity and compares favorably to historical outcomes with salt and soda rinses

123467 (Podium)

ACCURACY OF PROTIME/INR RESULTS USING PERIPHERAL VENIPUNCTURE AS COMPARED TO THOSE DRAWN FROM IMPLANTED PORTS USING THE PUSH-PULL METHOD.

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Underwriting or funding source: This project was partially funded by the Oncology Nursing Society Foundation.

Significance and Background: Many cancer patients have implanted ports for venous access and some are on warfarin for anticoagulation since the rate of thrombosis is high in this population. The push-pull method used for removing heparin from the port prior to blood sampling has not been studied relative to the accuracy of coagulation test results. This study will help to create evidence-based practice and improve patient outcomes by establishing the value of this methodology in clinical practice.

Purpose: The study aim and purpose was to explore the accuracy of protime/INR values drawn from implanted ports using the push-pull method in oncology patients undergoing therapeutic warfarin therapy compared to the standard practice of drawing the blood sample from a peripheral venipuncture site. These study results address the ONS research priority category of Nursing-Sensitive Patient Outcomes (NSPO). Appropriate use of central lines, lowering cost and positive outcomes are reflected in this practice.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Warfarin doses are adjusted using the patient's protime/INR. Because heparin is used in small amounts to maintain the patency of implanted ports, inaccurate laboratory results for PT/INR may be reported. Comparison of results obtained by venipuncture and from the port demonstrate if both methods are congruent.

Methods and Analysis: This study was a within-subject design, where the subject acted as his/her own control to assess the accuracy of PT/INR drawn from ports. Forty subjects were recruited. Inclusion criteria: a) 18 years of age or older, b) hematology/oncology patients with a functioning implanted port and c) on therapeutic warfarin requiring monitoring of PT/INR values. A 4.5 milliliter sample of blood was drawn from the implanted port using the push-pull method and a simultaneous sample was drawn peripherally. Both samples were analyzed per standard protocol. The data analysis revealed that there was no significant within-subject differences (using either parametric or nonparametric statistics).

Findings and Implications: This study demonstrated that monitoring PT/INRs can be successfully accomplished utilizing blood from implanted ports, as well as the push-pull method to clear the line. The emerging practice of using a push-pull method, as opposed to a discard method, for clearing the line appears to be acceptable.

126202 (Poster)

TO ASSESS VARIABLES RELATED TO SELF-EFFICACY FOR INCREASING PHYSICAL ACTIVITY IN ADVANCED-STAGE CANCER PATIENTS.

Soghra Nikpour, Center for Nursing Care Research, School of Nursing and Midwifery, Tehran University of Medical Sciences and Health Services, Tehran, Iran

Significance and Background: Exercise has mental and physical health benefits for patients with advanced stage cancer who actively receive chemotherapy, yet little is known about patients' levels of interest in becoming more active or their confidence in increasing their activity level

Purpose: To assess personal perceptions of the benefits and challenges of becoming more active physically. To investigate whether lower negative affect, higher positive affect and physical well-being, and greater outcome expectations for physical activity in advanced cancer patients may lead to greater self-efficacy for increasing physical activity level. This study is related to ONS research priorities:

1-A premise of this study is that the time period during which patients receive cancer treatment is important to promoting adoption and maintenance of a healthy physical activity level. Most importantly, cancer patients frequently interact with healthcare providers, who may offer support and counseling for physical activity.

2-physical activity may help patients manage some symptoms associated with cancer treatment.

3-A cancer diagnosis may provide a teachable moment for counseling about changing lifestyle

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This is a quantative research

Methods and Analysis: This is cross sectional design. A convenience sample of 200 patients with advanced-stage cancer who were receiving chemotherapy. They were recruited from an Institute chemotherapy service over a16-week period. A nurse investigator (SAL) identified potential participants who met inclusion criteria (ie, diagnosis of advanced-stage cancer, an estimated life expectancy of less than 5 years but greater than 6 months, receiving chemotherapy) through review of the medical record. Additional inclusion criteria included the ability and willingness to provide informed consent and an Farsi-language survey that could be completed in approximately 30 minutes. They completed self-report measures assessing physical activity level, mood, and quality-of-life variables. Qualitative data on patient-perceived benefits of, and barriers to, physical activity also were collected, coded by independent raters, and organized by predominant themes.

Findings and Implications: Current physical activity level, physical activity outcome expectations, and positive mood were significantly associated with self-efficacy. Fatigue was the most frequently listed barrier to physical activity; improved physical strength and health were the most commonly listed benefits. Participants identified benefits related to both general health and cancer-symptom management that were related to exercise. 59.5% of participants reported that they were seriously planning to increase or maintain their physical activity level, and over 40% reported having interest in receiving an intervention to become more active.These results suggested that many advanced-stage cancer patients who receive chemotherapy are interested in maintaining or increasing their physical activity level and in receiving professional support for exercise. In addition, these individuals identified general health and cancer-specific benefits of, and barriers to, physical activity. Future research will investigate how these findings may be incorporated into physical activity interventions for advanced-stage oncology patients receiving medical treatment.

126632 (Podium)

MEDICAL QIGONG PARTICIPATION IN CANCER SURVIVORS.

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Significance and Background: Medical Qigong is a mind-body exercise that includes movement and meditation. Qigong is beneficial in reducing high blood pressure, high cholesterol, anxiety, stress, pain and incidence of falls. This project is significant in that Qigong has never been evaluated in reducing distressing symptoms associated with cancer and cancer treatment.

Purpose: The purpose of this study was to understand if sleep, depression, fatigue and quality of life are improved as a result of participation. The specific aim was to determine whether cancer survivors who participate in the Qigong class experience a change in fatigue (Brief Fatigue Inventory), health-related (SF12) quality of life Mental Component Summary (MCS) and the Physical Component Summary (PCS), depression (CES-G) and sleep (Pittsburg Sleep Quality Index) from a pre-course (baseline) evaluation to a post-course evaluation.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Symptom management was the clinical model on which this research was based and that by offering Qigong classes, patients could potentially ameliorate some of the problems associated with cancer.

Methods and Analysis: Participants were any persons diagnosed with cancer, who participated in Qigong classes and actively undergoing some type of cancer treatment (surgery, hormonal therapy, radiation therapy or chemotherapy). Patients diagnosed with any cancer at any stage enrolled in a Qigong class were invited to participate. Instruments were completed before the first class and the conclusion of the final class (end of 8 weeks). Since all measures were continued, pre and post-intervention scores were analyzed using a paired-t-test. Frequencies and descriptive statistics were also performed.

Findings and Implications: Findings noted (N= 57) that the mean age was 58 years (range 36-75 years), most were not receiving any type of cancer treatment (42%), 9% were receiving only chemotherapy, 17.5% were receiving chemotherapy/radiation, and 10% were receiving only radiation, and the remaining were receiving hormonal, surgical, and combination therapies. Scores on the pre and post MCS and CES-G showed an enhanced mental well-being and a reduced depression score after completing the 8-week Qigong course. The implications are that Qigong may be a movement exercise that is helpful in reducing some of the emotional problems associated with cancer and cancer treatment.

127874 (Poster)

ADVERSE CHANGES IN BODY COMPOSITION OF CANCER SURVIVORS WITH BRCA MUTATIONS.

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Significance and Background: Post-diagnosis weight gain is a risk factor for cancer recurrence and many individuals diagnosed with breast and ovarian cancer gain weight during and after treatment. Although the mechanisms responsible for post-diagnosis weight gain have not been clearly delineated, adverse changes in body composition (reduced lean tissue, increased fat) are possible contributors.

Purpose: In the present study, we have measured the anthropometrics of cancer survivors with BRCA mutations and have studied the association between anthropometrics and post-diagnosis weight gain.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The investigation utilizes the Nola J. Pender Health Promotion Conceptual Model.

Methods and Analysis: The study population included 37 breast and ovarian cancer survivors with BRCA mutations, 45 BRCA previvors, and 26 controls. Anthropometric measurements included body mass index (BMI; kg weight/ m2 height) and body composition (% fat and lean tissue, assessed by using 4-lead bioelectric impedance). Post-diagnosis weight gain was determined via questionnaire. Potential effectors of anthropometrics included: diet (3-day food records), physical activity (General Practice Physical Activity Questionnaire), physical health (co-morbidities, Rand-36 Physical Health Quality of Life (QoL)), and psychological status (Beck Anxiety Inventory, Rand-36 Emotional Health QoL).

Findings and Implications: We found no significant differences in BMI between the survivors, previvors or controls (26+2 (SEM), 25+1, 25+1, respectively). However, the % lean body mass of the cancer survivors was significantly lower and their % body fat significantly higher than the previvors or controls (p=0.0005). Measures of body composition (% fat and lean mass) were independent predictors of post-diagnosis weight gain (r=0.86, p<0.001). No significant association was found between body composition measures and psychological status, energy intake or food composition. However, the adverse body composition measures of the survivors were associated significantly with physical inactivity (p<0.01), number of co-morbidities (p<0.0001), and physical health QoL (p<0.01). In summary, BRCA cancer survivors have adverse changes in body composition that increase their risk for weight gain and disease relapse. Based upon these findings, it is important for the survivorship care plan to include: 1) education regarding post-diagnosis weight gain, 2) a physical activity regimen, 3) health management, and 4) interval assessment of anthropometrics, including body composition, during and after treatment.

131355 (Podium)

TAILORED INTERVENTION PROTOCOL FOR ORAL CHEMOTHERAPY ADHERENCE.

Susan M. Schneider, PhD, RN, AOCN®, FAAN, Duke University, Durham, North Carolina

Underwriting or funding source: The project described was supported by Award Number R15CA139398 from the National Cancer Institute.

Significance and Background: While cancer patients express a preference for oral medications, compliance to these medications varies. Patients often have difficulty adhering to the prescribed schedule because of lack of understanding, inadequate support, or treatment related side effects. Patients who successfully adhere to chemotherapy regimens have a greater chance of non-recurrence and long-term quality of life. Thus, helping patients tolerate oral chemotherapy regimens is critical to their survival.

Purpose: The aims of this NCI funded study were to 1) test the effectiveness of a tailored protocol to promote adherence to oral chemotherapeutic agents in adults and 2) examine adherence to oral chemotherapeutic agents over time.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The tailored adherence protocol is based on the Reynolds' self-regulatory model of adherence. The intervention identifies patient knowledge, behavioral skills, and affective support and tailors adherence strategies to overcome barriers in each of these three categories.

Methods and Analysis: This randomized clinical trial examined the adherence rates in 48 adults started on a new oral chemotherapeutic agent for the following cancers; breast, colorectal, renal cell, hepatocellular carcinoma, myeloma or chronic leukemia. A control group received standard chemotherapy education. The experimental group received the standard education, an assessment and the tailored intervention delivered by an advanced practice nurse via telephone. Patient adherence rates were measured in both groups at 2 and 4 months using self-report and pharmacy fill rates. Group comparisons were analyzed using chi-square tests.

Findings and Implications: The average participant was Caucasian (67%), 59.85 years old, female with some college education. For both adherence measures at 2 and 4 months, the intervention group adherence rates were superior to the control group rates. 1) Self –report: intervention group adherence 91% and 95% vs. 80% and 82% in the control group. 2) Pharmacy refill rates: intervention group adherence 80% and 74% vs. 65% and 69% in the control group. The differences between groups were not significant, but suggest that for some participants the tailored coaching intervention was beneficial. Tailored coaching reduced barriers to adherence. An unexpected finding is that system barriers (late pharmacy deliveries and lack of coordination by providers) interfered with adherence in 10% of participants.

132357 (Poster)

CHANGES IN MENOPAUSAL SYMPTOMS EXPERIENCED BY JAPANESE BREAST CANCER PATIENTS AFTER THE START OF HORMONAL THERAPY.

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Significance and Background: It is believed that 1 in every 16 Japanese women will suffer from breast cancer, and the mortality is increasing every year. While hormonal therapy (HT) is an effective treatment for hormone-receptor-positive breast cancer, typical side effects include menopausal symptoms.

Purpose: This study aimed to evaluate changes of menopausal symptoms in breast cancer patients after commencing HT and examine an effective period for nursing intervention in late effects of HT.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Menopausal symptoms are defined as vasomotor, mental, and skeletal muscle symptoms. In Japan, they are known as common symptoms.

Methods and Analysis: Between February 2011 and December 2012, a self-completion questionnaire survey was conducted with 32 patients receiving HT without adjuvant chemotherapy. Responses were requested at 3 points: prior to commencing HT (T0), 1 month (T1) and 3 months (T2) after commencement. Questionnaire items included demographic information and menopausal symptoms, which were evaluated using the simplified menopausal index (SMI). SMI is a 10-item scale, with a higher total score (0–100) representing a higher degree of severity. Using SPSSver.18, the Wilcoxon signed-rank test and the Mann-Whitney U test were conducted with the Bonferroni adjustment. This study was approved by the ethical committee.

Findings and Implications: Twenty-five (11 pre-menopausal, 14 post-menopausal) patients (78.1%) responded for all 3 questionnaires. The age was 42.4 ± 6.8 years before menopause and 62.4 ± 7.5 years after menopause. The most common hormone used by pre-menopausal women was nolvadex (90.9%), whereas in post-menopausal women, arimidex (64.3%) was the most common. The SMI scores changed from 20.1 ± 19.0 (mean 15) before menopause to 17.9 ± 14.6 (12) to 32.7 ± 21.3 (29), with a marginally significant difference observed between T0 and T2 (adjusted p-value 0.064). After menopause, scores changed from 17.9 ± 16.7 (12.5) to 11.9 ± 9.5 (11.5) to 20.6 ± 11.1 (23); no significant differences were observed. Between groups before and after menopause, no significant differences were observed. Pre-menopausal patients tended to show menopausal symptoms 3 months after commencement and by intervening at this time, the impact on QOL can be minimized. No differences in degree of symptoms were observed between groups, which may suggest that both groups require care.

132977 (Podium)

END-OF-LIFE COMMUNICATION IN WOMEN WITH METASTATIC BREAST CANCER: DOES COPING STYLE AND SOCIAL DESIRABILITY PLAY A ROLE?

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Underwriting or funding source: This study was supported in part by a Georgia Cancer Coalition Distinguished Scholars Award (SBW) and the Susan G. Komen Breast Cancer Foundation (funded parent study, SBW principal investigator).

Significance and Background: As women with advanced breast cancer face high morbidity and poor prognosis, they are inevitably confronted with the challenge of end-of-life planning. While communication about end-of-life preferences has been shown to positively affect psychological functioning and ability to make informed end-of-life decisions, a multitude of barriers may hinder effective communication. Understanding such barriers is an important first step in developing end-of-life interventions, a high priority area for the Oncology Nursing Society and National Institute of Nursing Research.

Purpose: The purpose of this study was to investigate factors associated with end-of-life communication in women with metastatic breast cancer, specifically coping style and social desirability personality trait.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Caughlin's multiple goals perspective of personal relationships and communication theory was the theoretical lens for this study.

Methods and Analysis: This secondary analysis used baseline data from a longitudinal study with metastatic breast cancer patients (N=172). Validated measures used were Marlowe-Crowne Social Desirability Scale (1960), Martin-Larson Approval Motivation Scale (1984), and Mini-Mental Adjustment to Cancer (1994). End-of-life communication was measured using one item of an investigator-developed questionnaire. Data analyses included descriptive statistics, internal consistency reliabilities, and independent samples t-tests.

Findings and Implications: Participants were 28 to 81 years old (M=53.05, SD=10.7) and were living with metastatic disease for an average of 34.19 months. Most were married/partnered (72.7%), white (94%), Christian (75%), college graduates (79.9%), unemployed or on disability (55.2%), with moderate-high income (58.2% over $60,000). 65.7% experienced symptoms during activities of daily living (ECOG status=1, 2, or 3). Study instruments had acceptable Cronbach's alpha reliability ($\alpha = 0.765$ to 0.878). 37.2% reported that they spoke with "no one" about end-of-life decisions. Those who did not have end-of-life discussions scored higher in avoidant coping (M=11.02, SD=2.849; p=0.009) and social desirability (M=20.19, SD=5.768; p=0.089) than those who had discussions (avoidant coping, M=9.89, SD=2.578; social desirability, M= 18.65, SD=5.472). These findings suggest that avoidant coping mechanisms and the tendency to behave in a socially desirable manner may hinder effective end-of-life discussions in advanced cancer patients. Future work can build on this study to develop interventions to enhance end-of-life communication and ultimately improve quality of life and eliminate costly medical procedures and patient and family distress.

134358 (Podium)

ONCOLOGY NURSES AND THE LIVED EXPERIENCE OF PARTICIPATING IN AN EVIDENCE-BASED PRACTICE PROJECT.

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Significance and Background: Evidence-based practice (EBP) is linked to improved patient outcomes, a marker of quality care. The international literature is saturated with survey research of nurses' self-reports of not practicing EBP and the barriers to doing so. To increase EBP in nursing, the focus is shifting to the organization to provide the resources and culture necessary to facilitate EBP. But what is the impact of such interventions? A gap in the literature is knowledge of the impact of an organizational structure of EBP on nurses practicing within it: what is the experience of EBP for nurses in a workplace that supports and values EBP?

Purpose: The ONS Research Agenda 2009-2013 includes (G1) "Develop implementation science methods and techniques designed to improve the capacity of clinicians to screen, assess and deliver effective interventions and optimize nursing care quality and outcomes." This qualitative study fills a gap in the nursing implementation science literature by giving voice to those nurses who have participated in EBP. The purpose of this study was to discover the experiences of oncology nurses who have participated in EBP projects and learn of and from their experiences.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The phenomenological method of qualitative research as interpreted by Van Manen was employed to conduct this study. Implementation Science (IS) is challenged by the complexity of designing an intervention study to test its emerging theories. However, since nursing leaders in this field have repeatedly called for intervention studies in a field saturated with survey research, it is this researcher's belief that prior to intervention studies qualitative research is needed to discover the meaning of nurses' experiences of EBP. It was posited that these findings could provide nursing with an understanding of the nurses' EBP experience in order to better inform the design of future intervention studies in this field.

The findings of this study, the essence of the EBP experience for the oncology nurses interviewed reflected Elizabeth Barrett's mid-range theory of power, described within Martha Rogers' Science of Unitary Human Beings.

Methods and Analysis: A phenomenological qualitative study design was chosen to discover the meaning of nurses' participation in EBP. An urban, academic oncology cancer center in the US was chosen because it has an organizational structure for EBP. A purposive sample of nurses who participated in an EBP project were interviewed until saturation of essences, themes and sub-themes was met, resulting in 12 nurse participants. Each was asked the question: "What was the meaning for you of participating in an EBP project?"

Findings and Implications: Themes emerged from oncology nurse participants' descriptions of the meaning of their EBP experience as expressed in a textual interpretive statement: Participation in an EBP project is an empowering evolutionary journey marked by supports and challenges resulting in improvements in patient care. Oncology nurses working in an organizational structure supportive of EBP describe a very meaningful experience of actually making a difference improving patient care. In addition, this study documents nurses' perception of their own positive personal and professional development through the guided EBP experience, a newly documented finding. The findings of this study suggest that future organizational EBP intervention studies should include measures of nurse outcomes as well as patient outcomes.

134503 (Podium)

THE EFFECTS OF A CULTURALLY RESPONSIVE HEALTH PROMOTION PROGRAM FOR KOREAN ELDERLY SURVIVORS WITH GASTROINTESTINAL CANCERS: A RANDOMIZED CONTROLLED TRIAL.

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Underwriting or funding source: This work was supported by the Korea Research Foundation (KRF) grant funded by the Korea government (MEST) (No. 2009-0069945)

Significance and Background: Given the growing numbers of cancer survivors over age 65, the necessity to develop a tailored health promotion program for this population has increased more than ever before. There is a lack of studies, however, reporting the efficacy of health promotion program, which has taken elderly cancer survivors' disease-specific and age-particular characteristics into account.

Purpose: This study was aimed to develop a culturally responsive health promotion program for Korean gastrointestinal (GI) cancer survivors (CHP-K) and evaluate its effects on physical and psychological factors.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Pender's health promotion model and the selective optimization with compensation (SOC) model for a successful aging were used as theoretical frameworks of the study.

Methods and Analysis: The developed CHP-K comprised 8 weeks-long Ki (energy) exercise (mind-Ki-body training) and the face-to-face nurse-provided counseling based on SOC model. A total of 63 Korean GI cancer survivors, who completed their active cancer treatment at least 6 month prior to the study recruitment, aged over 65, having no other severe illnesses were recruited from a university affiliated urban cancer center in South Korea from January to June 2012. The participants were randomly assigned into either the experimental (EG) or the control group (CG), and the EG received 1 hour-long Ki exercise and the face-to-face counseling at the cancer center once a week for 8 weeks and the participants were asked to practice the Ki exercise at home at least once a day using a 15 minutes Ki exercise computer CD. Outcomes were evaluated by the amount of exercise (minutes), body weight, BMI, the Patient Generated Subjective Global Assessment (PG-SGA), MD Anderson Symptom Inventory, and the scales of self-efficacy and self-esteem using SPSS 18 program.

Findings and Implications: At baseline, no variables were statistically different between the two groups. The mean age of the participants was 71.05 ±3.661. All outcome variables were differed to a statistically significant extent either between the groups across the points in time (pre-test, 4 weeks, and 8 weeks) or in terms of the interaction effects. The results suggested that the participation in CHP-K might contribute to a healthy survivorship for Korean GI cancer survivors.

135431 (Podium)

STRENGTHENING NURSES' VOICES IN ETHICALLY-DIFFICULT SITUATIONS.

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Underwriting or funding source: ONS Foundation through an unrestricted grant from Genentech, Inc.

Significance and Background: Being at the bedside and close to the human suffering that results from ethically-difficult situations, oncology nurses are in a key position to assess early indicators of impending dilemmas and initiate early interventions. However, little is known about contextual and individual factors that influence the development of ethically-difficult situations.

Information on environmental conditions and early collaborative action could sensitize healthcare team members to initiate early ethics conversations and goal setting in an effort to diminish the degree of suffering, moral distress, and burnout that often accompanies difficult ethical dilemmas.

Purpose: 1) Study key players' narrations of ethically-difficult situations, reports of contributing factors, and suggestions for conflict-mitigating actions 2) Develop an intervention model that prompts early identification, nursing action, and team collaboration in addressing ethical dilemmas.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: A socio-ecological framework that depicts events and behaviors within a larger social and political context was applied.

Methods and Analysis: We used an ethnographic research design to collect data in 12 key informant interviews with clinical ethicists, nurse executives and managers, and physicians and in 6 focus groups with 30 oncology nurses in southern California. After transcribing and importing all audio-recorded data into Atlas.ti software, we used a constant comparison technique to categorize, code, and diagram data into meaningful patterns.

Findings and Implications: Findings indicated that most ethical dilemmas occurred toward the end of life and involved painful conflicts among healthcare professionals, patients, and family members. Nurses' primary goals included being honest with patients and families and preventing undue suffering. In conditions of conflict, many nurses reported suffering silently or participating in "soft murmurings" with colleagues. Nurses perceived high risk in speaking out under conditions of significant power differentials, inadequate management support, moral uncertainty, and fractured care planning. Early actions included prompt recognition, mindful deliberation, clear inter-disciplinary communication, and goal clarification. New insights from the research resulted in the development of CO:ADVOCATE as a model which strengthens nurses' voices when collaboratively mitigating ethical dilemmas and creates more supportive structures that encourage and uphold healthcare providers' moral actions.

135481 (Poster)

OUTSMARTING ORAL MUCOSITIS.

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Significance and Background: Oral Mucositis (OM) is a common toxicity associated with patients who are receiving radiation therapy or chemoradiation for cancers of the oral cavity, oropharynx, nasopharynx and salivary glands. A debilitating side effect having significant impact on health, quality of life and treatment outcomes, OM poses a challenge for both the patient and the nurse.

Purpose: The aim of this clinical evaluation was to investigate the clinical effects of MuGard on decreasing the severity of OM in patients receiving head and neck radiotherapy/radiochemotherapy. The purpose was also to determine if MuGard was effective in its early use to prevent OM, reduce the OM grading toxicity score, minimize weight loss and require less pain medications (which is the hallmark of OM).

Conceptual or Clinical Model/Philosophic or Theoretical Framework: It was a clinical evaluation to determine if the use of MuGard at beginning of cancer therapy would decrease the grade of OM, decrease pain and the need for narcotics, and minimize weight loss.

Methods and Analysis: At Rush University we began 125 patients who were commencing on radiation therapy treatment for a head and neck cancer primary on MuGard, a mucoadhesive oral protectant, developed by Access Pharmaceuticals, Inc. Patients were instructed to gently swish and swallow 5 ml of MuGard 4 to 6 times daily starting on the first day cancer treatment begins and continuing a week or longer after treatment ends. The patients weight, pain assesment, oral assessment and NCI OM toxicity grading was performed and documented biweekly.

Findings and Implications: 125 patients were enrolled on MuGard therapy over an 18 month period. 105 patients had a OM grade 1 to 2 on the NCI toxicity grading scale, less than a 5 lb weight loss, and the need for narcotics began at week 5 of therapy, if at all. There were 20 patients who were non compliant in using MuGard as instructed and 10 of them developed a grade 3 OM. Our results indicate that the preventive use of MuGard in patients who have undergone radiation therapy to the head and neck region is a powerful tool in reducing OM incidence, reducing significant weight loss and reducing the need for narcotic use.

135487 (Podium)

EVALUATION OF THE INTEGRATION OF GENETICS AND GENOMICS INTO NURSING PRACTICE.

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Underwriting or funding source: This study is funded by the National Council of State Boards of Nursing and supported by the Intramural Research Program of the National Institutes of Health United States, including the National Cancer Institute and the National Human Genome Research Ins

Significance and Background: Genomics is redefining the oncology healthcare continuum. Nurses are an integral part of the interdisciplinary care team, directly affect public welfare and safety. Therefore with scientific advances, the integration of genomic competencies into oncology nursing practice is necessary for the provision of safe, responsible, and accountable care.

Purpose: Evaluate institutional nursing workforce attitudes, practices, receptivity, confidence and competency in genomics of common disease including cancer and family history utilization.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Roger's Diffusion of Innovation theory guided this study consisting of a baseline online survey utilizing practicing nurses working in one of 21 Magnet Hospitals participating in a year-long genomic education initiative.

Methods and Analysis: The survey assessed knowledge, skills, attitudes and utilization related to collecting family history, and beliefs about the usefulness of genomics in practice. Results were analyzed using descriptive statistical techniques.

Findings and Implications: Findings: 7306 licensed RNs responded for an overall response rate of 33% (range 17-63%) from all institutions. Respondent's mean age 45 (range 20-72) with an average of 17 years in practice with most prepared at the baccalaureate level (59%). Ninety percent considered genomics very important to nursing practice but 55.9% do not think senior staff viewed genomics as an important nursing role. Sixty-five percent rarely or never assessed a family history. Seventy-nine percent rated their understanding of the genetics of common diseases as poor or fair. Nurses felt most confident in their skills of protecting confidentiality but had the least confidence related to genetic testing. A total knowledge score was calculated from 12 knowledge questions revealing a mean 8.09/12, median 8.00/12, range 0-12, SD 1.62. However, 72% did not know or incorrectly stated that diabetes and heart disease are caused by a single gene variant, illustrating significant knowledge gaps. More than 70% indicated they intend to learn more about genomics and are willing to attend on their own time. Implications: Most felt genomics was important but were inadequately prepared to incorporate it into their practice though were receptive to learning more. This workforce analysis revealed genomic knowledge gaps in all nurses regardless of their highest level of education indicating that all nurses would benefit from a broad scale education intervention.

135564 (Podium)

“I’M STILL HERE”: RESILIENCE AMONG OLDER BREAST CANCER SURIVORS.

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Underwriting or funding source: ONS Foundation: Annual Doctoral Scholarship and Sigma Theta Tau, Gamma Tau Chapter: Research Grant Award

Significance and Background: U.S. demographic changes suggest the prevalence of breast cancer (BC) among women ≥65 years may more than double by 2020: from 1,068,000 in 2010 to 2,858,000 in 2020. Older women diagnosed with BC are marginalized within the context of age, female gender and being diagnosed with a life-threatening disease. Thus, a BC diagnosis adversely and disproportionately affects this underserved population. A strength factor such as resilience may explain why some survivors are relatively resistant to the aftermath of BC. Resilience is modifiable and amenable to nurturance. Uncovering ways to enhance resilience may contribute to successful aging among older BC survivors.

Purpose: To describe the adaptive experiences of women ≥70 years who recently completed treatment for primary, early-stage BC from the perspective of the women themselves. This novel research expands the phenomena of resilience to older BC survivors to guide age-appropriate nursing care.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: Grounded theory posits that humans are practical beings who interact with each other, dynamically act back on their surroundings, and respond to what is useful. Constructivism advances classical grounded theory in ways particularly suited to research resilience: perspective gives form and content to reality, a tenet that echoes an important attribute of resilience that the appraisal of a situation defines its outcome.

Methods and Analysis: Twenty eight personal, semi-structured interviews with 18 70-94 year-old women who completed treatment for primary, early-stage BC in the prior 3-15 months explored adaptation. Constructivist grounded theory directed data collection and analysis.

Findings and Implications: Starting with the profound shock of being diagnosed with BC to the positive outcome of again restoring balance in their lives, resilience manifested as a natural process within the women’s physical, psychological, social and spiritual existence. This multidimensional process is simultaneously enacted in the perspective of their lifespan, connecting their past, present and the future. Narratives evidenced a fluid interaction of internal and external attributes of resilience. Internal attributes such as self-reliance and positivism were seamlessly incorporated with engaging in meaningful interactions with other people and with God. Participants expressed vulnerability along with pragmatism to do what needs to be done to move on with their lives.

135714 (Podium)

PATIENT PERCEPTIONS OF THEIR INVOLVEMENT IN PATIENT SAFETY: REFRAMING EXPECTATIONS IN ACUTE CARE ONCOLOGY.

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Significance and Background: Among the most prominent initiatives spawned from the patient safety {PS) movement is the call for patient involvement in their care as a PS strategy. This trend has led to the propagation of campaigns intended to encourage patient involvement in PS, leaving hospitals to articulate policies while researchers scurry to assess their efficacy. To date, the healthcare provider perspective, compromised by conceptual definitions of PS that elude the public, has dominated this research. What results is a paucity of evidence addressing how patients view their role in PS, what factors influence their involvement, and how nurses might translate that knowledge into effective interventions.

Purpose: The purpose of this qualitative study was to describe the perspectives of oncology patients regarding involvement in their care as a PS strategy, addressing 1) how patients conceptualize their role in PS; 2) how the constructs of the Theory of Planned Behavior (TPB) relate to patients’ perceptions; and 3) the role of health literacy (HL) in patients’ beliefs regarding their involvement in PS.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The TPB has been advocated in the study of patient involvement in PS, and constructs from the theoretical framework were extant in the research questions and interview guide. Methodologically, this study was guided by grounded theory as described by Corbin and Strauss, the purpose of which is to develop a theory based on an iterative process of induction and deduction. This comprehensive approach integrated interview data, participants’ HL level, demographics, and the extant literature to describe patient perspectives regarding their involvement in PS.

Methods and Analysis: This study utilized semi-structured interviews, a demographic questionnaire, and the Short Test of Functional Health Literacy in Adults (STOFHLA), a well-established reliable and valid HL assessment tool. Purposive sampling was employed to recruit 13 hospitalized oncologic patients across a range of HL levels. Interviews continued until data saturation was achieved, and transcripts were analyzed using the constant comparative method.

Findings and Implications: The term PS was not readily found in the vernacular of patients. While patients described a responsibility to engage in certain aspects of their safety, they uniformly expressed no interest in assuming responsibility for the processes of healthcare. Rather they relayed their responsibility for managing their own behavior while expressing their perception that the provision of safe care was a responsibility of the healthcare system.

136231 (Poster)

ADDRESSING THE PSYCHOLOGICAL WELL-BEING OF BRCA MUTATION CARRIERS.

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Significance and Background: BRCA mutation carriers have up to an 87% lifetime risk of developing breast cancer and s a 60% risk for ovarian cancer. BRCA gene mutations also predispose the carrier to other types of cancer, as well as to secondary disease. A BRCA mutation diagnosis, therefore, is likely to have a long-term negative impact upon psychological well-being.

Purpose: The primary purpose of our study was to determine the psychological well-being of individuals with BRCA gene mutations.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The investigation utilizes the Nola J. Pender Health Promotion Conceptual Model.

Methods and Analysis: The study population included 36 breast and ovarian cancer survivors with the BRCA mutation, 45 BRCA mutation previvors, and 26 controls. Psychological status was assessed by scores on the Beck Anxiety Inventory (BAI) and on the emotional domains of the Rand-36 Quality of Life (QoL) questionnaire. The Rand-36 consists of 2 scales directly related to emotional QoL (emotional well-being, limitation due to emotional problems), 3 scales related to physical QoL (pain, physical functioning, physical limitations) and 3 additional domains related to both (energy/fatigue, social, health perception). Other issues studied in relation to psychological well-being included vitals, sleep, sex life and associated impediments, i.e. vaginal dryness, reduced desire, body image.

Findings and Implications: We found that both groups of BRCA carriers (survivors, previvors) had significantly (p<0.0001) greater levels of anxiety than the controls (mean BAI=10.0, 10.1, and 4.5, respectively). Emotional distress was also more prevalent among the BRCA carriers than the controls, as evident from their significantly (p=0.02) lower scores on the Rand-36 emotional scales. Neither emotional QoL nor anxiety measures were affected significantly by cancer status, but these measures were significantly (p<0.01) associated with fatigue, poor sleep quality, and a negative perception of general health. Significant (p<0.05) effectors of psychological status included BRCA mutation diagnosis, sex life quality and associated impediments. In summary, a diagnosis of BRCA gene mutation has an adverse effect on emotional well-being. It is, therefore, important that the nurse coordinator provide BRCA mutation carriers long-term emotional support in the form of genetic and behavioral health counseling, support groups, referral to national and local support organizations, and techniques for stress reduction.

136703 (Podium)

SELF REPORTED COGNITIVE FUNCTION EFFECTIVENESS AND WORRY IN PATIENTS WITH SUSPECTED LUNG CANCER.

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Underwriting or funding source: NR07695-01A1

Significance and Background: As the leading cause of cancer mortality in the U.S., early detection, diagnosis, and treatment of lung cancer are imperative to optimize survival. A suspected lung cancer diagnosis is cognitively and emotionally challenging, often occurring when people are leading productive lives. Such a stressor places demands on cognitive resources and provokes worry, aversive cognitions about perceived threats and concerns. However, little research has examined perceived effectiveness in cognitive function and worry during the early post-diagnostic period.

Purpose: In line with ONS research agenda priorities indicating necessity for research on pre-treatment cognitive function and symptom assessments in newly diagnosed patients, the study purpose was to examine perceived cognitive effectiveness and worry in patients with suspected lung cancer pre- and post-surgery.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The study incorporated Cimprich's theoretical perspective on attention and patient education.

Methods and Analysis: A repeated measures design was used. Self-reported cognitive effectiveness was measured by the Attentional Function Index(AFI), a 16-item linear analogue scale(range 0-100). The Penn State Worry Questionnaire(PSWQ), a 16-item scale(range 16-80) measured worry severity. Twenty-three men(n=15) and women(n=8), age 37–82 years(mean 61.4+10.7) with suspected lung cancer were tested at diagnosis and again 3-4 weeks post-surgery. Descriptive statistics, paired t tests, and non-parametric correlation analysis were used. Mean AFI scores were 57.16+16.86, range 29–87, pre-operatively; and 55.52+16.98, range 26–91, post-operatively; demonstrating low perceived cognitive function effectiveness. Pre-operative mean PSWQ scores were 41.43+13.39, range 20–72, and 39.0+8.98, range 19–65, post-operatively demonstrating moderate worry. Eight patients(35%) pre-operatively, and six(26%) post-operatively had PSWQ scores >45 indicating higher worry.

Findings and Implications: Patients diagnosed with lung cancer were significantly older. Patients report low perceived cognitive effectiveness both pre-and post-operatively suggesting that a suspected lung cancer diagnosis may contribute to compromised function even before treatment. Patients with non-malignant post-operative reports(n =8) reported significantly higher worry following surgery. The importance of assessment and interventions aimed at supporting effective cognitive function and modifying worry for patients with suspected lung cancer are essential to optimize adjustment. The study points to the need for further research with larger samples and to the psychological needs of patients with non-malignant post-operative reports.

136709 (Podium)

TRIGGERS IDENTIFIED TO PROMPT PALLIATIVE CARE CONSULTS PRIOR TO THE ONSET OF CRITICAL ILLNESS.

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Significance and Background: Critically ill cancer patients often have poor outcomes and limited life expectancy. An analysis of critically ill cancer patients in 2010 revealed a 55% survival rate at discharge. At six months after discharge the survival rate dropped to 33%, and to 19% at 11 months. At this institution, less than 10% of these patients have a palliative care consult prior to implementing critical care, despite the high mortality rate.

Purpose: his project aimed to define and utilize factors that predict which critically ill cancer patients had negative outcomes, such as death. The purpose was to optimize utilization of critical care and palliative care resources by applying predictive variables as triggers for a palliative consultation prior to the onset of critical illness.

This study relates to both the End of Life (EOL) Issues and Psychosocial and Family Issues areas of the research agenda identified by ONS. Specifically, under the goal of EOL issues to subheading D.2., develop knowledge that promotes quality of life (QOL) for patients with cancer near EOL and their families. Palliaitve care consultations offer an assessement of QOL issues for patients and their families. Identifying an at risk patient population can trigger a palliative care consultation. This study also relates under the Psychosocial and Family Issues subheading E.1.2., design or test interventions that identify patients and caregivers at higher risk of poorer outcomes and target interventions to meet their needs. This study identifies patients at risk for poor outcomes. There have been numerous studies confirming the high cost of medical care in the last weeks of life in the intensive care unit. Utilization of critical care and palliative care resources are examined in this study.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The philosophic frame of reference for this study is based in palliative care and the importance of open, honest communication for advanced cancer patients and their families with their health care providers. This is most important to avoid having patients and their families make decisions in a crisis mode, i.e. prior to the initiation of critical care. Open communication involving an interdisciplinary palliative approach, improves patient/family care and increases satisfaction of all stakeholders as goals of care are identified, medical issues are clarified and options for care are discussed. There is general agreement that patients often receive critical care inappropriately, that often the decision was not adequately addressed beforehand, and that more communication is needed. Palliative care programs promoting goals of care discussions increase staff and patient satisfaction through enhanced communication, development of care plans with patients and their families, and the avoidance of unnecessary and costly tests or procedures.

Methods and Analysis: A retrospective Sequential Organ Failure Assessment (SOFA) score analysis of critically ill cancer patients on ventilator support or renal replacement therapy in 2010 predicted death in 50% of critically ill cancer patients. Poor predictive values of the 2010 SOFA scores led to evaluation of other indicators that reflect cancer patients at risk for critical illness. Three indicators were identified through literature review, expert consultation, and chart analysis; patients with advanced cancer, on a cardiac monitor and requiring supplemental oxygen. Over a two month period, the outcomes for all patients meeting these criteria were assessed. Using the three indicators as predictors for poor outcomes, identified these patients as appropriate for a palliative care consultation.

Findings and Implications: Review of 454 admissions over two months identified 61 patients meeting the at-risk criteria and were followed to assess outcomes. Of these 61 patients, 21 (34%) died before discharge, 14 (23%) were discharged with hospice, 25 (41%) were discharged to home (3 of these patients have since died). One patient was discharged to a chronic ventilator facility. 16 (26%) of the 61 patients became critically ill. Poor outcomes were evident in 39 (64%) of patients with these three identified risk factors.

From this work, a study has been approved and is underway to hold goals of care meetings for all patients with the identified triggers within 72 hours to improve communication between at risk cancer patients, their families and their health care providers. Identification of an advanced directive and a healthcare proxy are some examples of what will be evaluated. Surveys filled out by patients/family members will be analyzed to help the health care providers improve communication.

136849 (Poster)

NURSING NEEDS AND NURSING INTERVENTION NEEDS OF WOMEN WITH BREAST CANCER.

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Underwriting or funding source: Kyung Hee Lim

Significance and Background: Breast cancer has been the second common cancer since 2008 and obviously increasing in Korean female. Patients with breast cancer have many problems in terms of physical, psychological, social, informational, genetic, and nutritional aspects. However, there is a paucity of to identify various nursing needs of Korean women with breast cancer and few studies have investigated their nursing intervention needs from a comprehensive perspective.

Purpose: The purpose of this research was to identify various physical, psychological, social, informational, genetic, and nutritional nursing needs and nursing intervention needs of women with breast cancer to provide basic data in developing a comprehensive and individualized nursing intervention for the women.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This research did not used a conceptual framework since it was a survey reseach to investigate various physical, psychological, social, informational, genetic, and nutritional nursing needs and nursing intervention needs of women with breast cancer

Methods and Analysis: Collection of data for this research was conducted with 381 women with breast cancer who were hospitalized or had a follow-up in D University Hospital, South Korea from September 1, 2011 to March 20, 2012. A self-report survey contained items for assessing physical, psychological, social, informational, genetic, and nutritional nursing needs and nursing intervention needs of women with breast cancer. Data analysis was conducted using SPSS version 19.0. Descriptive statistics were used to assess sample characteristics, nursing needs, and nursing intervention needs. ANOVA and Scheffe test were used to examine mean differences in each nursing needs and nursing intervention needs domain according to sample characteristics.

Findings and Implications: The 381 participants had a mean age of 52.6 years (SD, 8.99 years). Participants were predominantly partnered, unemployed, cancer-insured, cared and powered by family members. The mean of nursing needs was 3.35 (S.D. 0.44) out of 4 and the highest mean of nursing needs was on nutritional (3.64) domain followed by physical (3.44), psychological (3.33), generic (3.32), informational (3.25), social (3.19) nursing needs. The highest mean of nursing intervention needs was on nutritional (3.32) and genetic (3.30) domains followed by informational (3.28), psychological (3.24), physical (3.20), and social nursing intervention needs (3.16). Informational nursing needs showed statistically significant differences in stage, age, level of education, marital status, occupation, economic level, diagnosis time, diagnosis phase, support, and insurance. Physical nursing needs showed a significant difference in occupation. Social nursing needs showed significant differences in level of education and diagnosis time. Genetic nursing needs showed a significant difference in insurance. Nutritional nursing needs showed significant differences in stage, age, and occupation. Regarding nursing intervention needs, informational and genetic nursing intervention needs showed significant differences in age and insurance. Psychological nursing intervention needs showed significant differences in level of education and diagnosis time. Social and nutritional nursing intervention needs showed significant differences in stage, age, level of education, and diagnosis period. The findings would be useful for developing a comprehensive nursing intervention for women with breast cancer by providing their nursing needs and nursing intervention needs, which could improve their quality of life. In particular, the findings of nutritional and genetic nursing needs could lead healthcare providers to have an interest in developing interventions for the nursing needs.

136876 (Poster)

SEXUAL DISTRESS, BODY IMAGE AND MBSR IN YOUNGER BREAST CANCER SURVIVORS: DESIGN OF A DOCTORAL DISSERTATION WITHIN THE CURRENT R01 MBSR SYMPTOM CLUSTER TRIAL FOR BREAST CANCER SURVIVORS RANDOMIZED CONTROLLED TRIAL.

Carly Paterson, MS, RN, University of South Florida College of Nursing, Tampa, Florida; Cecile Lengacher, PhD, RN, FAAN, University of South Florida College of Nursing, Tampa, Florida

Significance and Background: Problems related to sexuality are prevalent and often reported following surgical and adjuvant treatment leading to sexual distress and body image issues. These issues are particularly reported by younger breast cancer survivors. MBSR is a clinical program that provides systematic training to promote stress reduction by self-regulating arousal to stressful circumstances or symptoms.

Purpose: The purpose of this research is to examine the impact of MBSR on the symptoms of sexual distress and body image related distress in younger breast cancer survivors. This project will utilize the resources and strengths of the MBSR Symptom Cluster Trial for Breast Cancer Survivors, 1R01CA131080 and compliment the goals of the parent study while also providing the dissertation research for the student.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: The theoretical logic model postulates that the MBSR(BC) program improves psychological and physical symptoms as well as quality of life. Changes in symptoms are expected to correspond with changes in quality of life. For the dissertation research, the revised theoretical logic model postulates that the MBSR(BC) program will specifically improve the psychological outcomes related to sexual distress and body image related distress. The principal mechanism by which MBSR is effective is through increased mindfulness (e.g. awareness) and to achieve maximum benefit from the MBSR (BC) program, practice and proficiency in mindfulness is a critically important element. This logic model, developed by Evans is based upon the Psychosocial Nursing Research Model as a heuristic device for research.

Methods and Analysis: This study will use two subject groups where participants are randomly assigned to either: (1) the 6-week MBSR (BC) program; or (2) Usual Care (UC) guidelines (waitlisted later to the MBSR program). For the purpose of this research, data will be collected on sexual distress and body image related distress in a subsample of 80 participants. Sexual Distress will be measured by the Female Sexual Distress Scale (FSDS) Scale and Body Image will be measured by the Body Image Scale. Data collection will occur for both groups at the baseline orientation session, at the end of the 6-week intervention period, and 12 weeks after baseline enrollment. ANCOVA will be used to compare adjusted mean outcome scores (sexual distress, body image) between patients assigned to the MBSR (BC) program versus patients assigned to the Usual Care regimen. The "intent to treat" principle will be used, and both outcomes will be considered of equal importance. The efficacy of MBSR (BC) will be evaluated using the 6-week assessment period as the outcome period of interest. For this ANCOVA, the baseline value of the outcome variable of interest (i.e. sexual distress and body image related distress) will be included as a covariate, along with all other potential confounding variables that are not adequately balanced by random assignment (as described below). This will provide an assessment of the efficacy of MBSR (BC) in improving patient outcome (i.e. sexual distress and body image related distress) in the short-term and above and beyond improvements that occur simply due to increasing time since treatment completion (as measured in the Usual Care group). In the second analysis, the 12-week assessment period will serve as the outcome period of interest, providing an assessment of the short-term sustainability of MBSR (BC) in improving patient outcomes.

Findings and Implications: This will increase the scientific understanding of the mechanism behind how the meditative practices of MBSR work, and identifying if increased mindfulness directly influences or indirectly influences (through reduction in fear of recurrence) the improvement of sexual distress and body image related distress.

136880 (Podium)

MEN'S EXPERIENCES OF HEAD AND NECK CANCER: ROLE DISRUPTION, IDENTITY CHANGES, AND ILLNESS WORK.

Terri Wolf, RN, MS, University of California, Davis, Sacramento, California

Significance and Background: Men account for 72 percent people diagnosed with head and neck cancer. The chemotherapy and radiation treatment regimen is rigorous with multiple side effects impacting the lives of the patients and families. These patients utilize multiple clinical resources, yet their gendered experiences are understudied.

Purpose: Understanding the patients' experiences of cancer treatment and knowing their life context through their narratives can strengthen our approach to patient-centered care.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: A cross-sectional phenomenological study was conducted to understand the experience of men with head and neck cancer from diagnosis through recovery from chemotherapy and radiation and/or surgery in order to facilitate person-centered care.

Methods and Analysis: The purposive sample of seven blue collar men, aged 50-60 years, with head and neck cancer, who completed radiation and chemotherapy treatment were recruited at an academic medical center with Institutional Review Board approval. The men's experiences were elicited with a semi-structured interview where they had the freedom to discuss what was important for them during treatment. Audio recordings were transcribed verbatim. A grounded thematic analytic approach with a priori categorizing was used to identify patterns, commonalities, and differences. The investigator identified main themes, created a coding manual, and sub coded themes.

Findings and Implications: The men's narratives revealed significant disruption to their masculine roles throughout the cancer trajectory. They also revealed an interesting approach to their experience—they described curing cancer as a job in need of completion—which allowed them to strategize how to successfully complete the job of curing their cancer. Their strategies included (a) selecting "management" [physicians], (b) enlisting a caregiver [woman family member] to provide unskilled labor, (c) having a positive attitude, and (d) developing their spiritual lives. The men also had to deal with strategies that did not work at the completion of treatment. The findings of this study will further patient-centered care by providing insight into gendered approaches to treatment. Understanding a patient's background and expectations can help health care providers to communicate in ways that are relevant to the roles with which a patient is familiar, thereby keeping the patient actively engaged in their treatment and recovery.

136908 (Poster)

EFFECTS OF FOOT REFLEXOLOGY ON DYSPNEA IN PATIENTS WITH TERMINAL CANCER.

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Underwriting or funding source: This work was supported by JSPS KAKENHI Grant Number 24593341.

Significance and Background: Nearly half of terminal cancer patients experience dyspnea. Dyspnea is caused by a variety of factors, including general debility and anemia, lung cancer or lung metastasis, and psychological stress.

Purpose: This study sought to examine the effects of foot reflexology in terminal cancer patients with dyspnea, examining their physical and psychological experiences of the intervention, and whether such effects contribute to improving dyspnea.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: At present, the mechanisms of foot reflexology are complex and unclear, so here we evaluated the autonomic, neuroimmunological, and psychological effects of foot reflexology.

Methods and Analysis: Subjects were selected from patients with terminal cancer who had dyspnea despite having SpO2 ≥95%, who were on bed rest, and who were able to communicate verbally. Among the 5 eligible subjects 3 had lung cancer, one had bile duct cancer, and one had esophageal cancer. Certified therapists provided foot reflexology at the bedside for 20 min (10 min each foot) on 3 occasions on 3 separate days. Changes in dyspnea sensation were measured pre- and post-intervention with a numerical rating scale (NRS) and evaluated using the paired t-test. Patients participated in a post-intervention semi-structured interview (15–20 min duration) about the intervention. Physical and emotional changes reported by the patients were analyzed using qualitative induction.

Findings and Implications: Dyspnea as measured by the NRS was significantly reduced post-intervention compared with that before intervention ($p=0.038$). Patient responses regarding the effects of intervention could be classified into four categories: "comfort", "diversion", "pain relief", and "gratitude." The interventions provided some patients with the opportunity for their life review. Total pain worked as a negative factor for dyspnea, indicating that their dyspnea should be regarded as total dyspnea. As the sample size is small, we will continue our research with larger numbers of patients and, as a next step, we will also investigate changes in autonomic nervous system activation related to changes in psychological state.

136929 (Poster)

ANALYSIS OF TOTAL PARENTERAL NUTRITION SUPPORT IN CANCER PATIENTS.

Kyung Hee Lim, College of Nursing Keimyung University, Daegu; Kyung Eun Lee, RN, Dongsan Medical Center Keimyung University, Daegu

Underwriting or funding source: Kyung Eun Lee

Significance and Background: Breast cancer has been the second common cancer since 2008 and obviously increasing in Korean female. Patients with breast cancer have many problems in terms of physical, psychological, social, informational, genetic, and nutritional aspects. However, there is a paucity of to identify various nursing needs of Korean women with breast cancer and few studies have investigated their nursing intervention needs from a comprehensive perspective.

Purpose: The purpose of this research was to identify various physical, psychological, social, informational, genetic, and nutritional nursing needs and nursing intervention needs of women with breast cancer to provide basic data in developing a comprehensive and individualized nursing intervention for the women.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: This research did not use any conceptual framework because this is a secondary research to analyze TPN support in hospitalized cancer patients using electric medical records.

Methods and Analysis: This study was a secondary research study and research subjects were a total of 5788 cancer patients at K university hospital in Daegu city, South Korea from Jan. 1st 2011 to June 30th 2011. Among 5788 cancer patients, 400 patients who had lipid based TPN support were included in TPN support analysis. Data were analyzed with descriptive statistics and t-test, using Excel and SPSS program version 18.0.

Findings and Implications: 1. Among hospitalized cancer patients, 33.8% patients had TPN support. Of patients with TPN support, 77.1% had Glucose based TPN support and 22.9% had Lipid based TPN support. 2. Most patients had digestive organ cancers and a mean percent of IBW was 106.9% at admission time. Of the participants, 49.5% were at normal nutritional status and 50.5% were at malnutritional status at admission time. 3. The main reason for TPN support was NPO due to operations, followed by decrease of oral intake. A mean duration of TPN support was 6.0 days and only 8.0 percents of the participants had an assessment of nutritional demands before TPN support. Among participants with TPN support, 31.0 percents were able to eat orally and had TPN support during mean periods of 6.95 days. 4. There were significant differences between patients with NPO diet and patients with oral intake diet in terms of calorie, aminoacid, and lipid supplies. This study has shown that TPN support have been used as a common method to improve nutritional status of the cancer patients without any thoughtful considerations on TPN supports guideline. Therefore, it is necessary to develop an educational program to help health professionals understand TPN supports guideline in order to provide appropriate nutritional supports to cancer patients.

137021 (Poster)

COMPARISON OF TEMPERATURE MEASUREMENT METHODS IN ADULT HEMATOLOY ONCOLOGY PATIENTS.

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Significance and Background: Febrile neutropenia is an oncology emergency for immunocompromised patients as it may indicate sepsis. Accurate tempertaure measurements are imperative to the care of hematology oncology patients. Body temperature measurementusing the oral thermometer has been an accepted practice for non-invasive temperature monitoring. Factors such as mucositis can interfere with accurate readings using this method. As a result, there is a need to establish an alternative method of temperature measurement for this patient population to ensure early recognition of sepsis.

Purpose: The purpose of this research study was to assess equivalence of temperatures taken via the temporal artery, axillary, and oral methods to determine the best alternative to the oral method in the adult hematology oncology patient.

Conceptual or Clinical Model/Philosophic or Theoretical Framework: n/a

Methods and Analysis: A repeated measures equivalence design was used to test temperatures taken with three non-invasive devices: "O" standard electronic thermometer in oral mode, "A" standard electronic thermometer in axillary mode, "T" Exergen Temporal Scanner Model #5000. To control for possible carryover affects, a Latin Squares design was employed with three possible sequences of measurement (OAT, ATO, TOA). Prior to study initiation on an adult hematology oncology unit of a large cancer center, regulatory approvals were obtained and inter-rater reliability (Cohen's Kappa > .8) was achieved by the two data collectors. Medical records were reviewed for demographic and clinical data to determine eligibility and informed consent was obtained. Measures were collected according to the assigned sequence. Forty (n=40) sets of temperature measurements were taken on 33 patients. The sets of measurements were used to calculate a 90 % confidence interval (CI) for paired samples, providing a width of 0.2 degrees F (the acceptance criteria) difference between means.

Findings and Implications: Equivalence was demonstrated for temporal artery and oral measurements (90% CI was 0.14 degrees F). Equivalence was not demonstrated for the axillary and oral measurements (90% CI was 0.25 degrees F). This research supports the use of the TAT-5000 for temperature measurement as a non-invasive alternative to the oral method for adult hematology oncology patients. Obtaining axillary temperature measurements should be used with caution or discontinued. Education and competency on the TAT-5000 is required for registered nurses and oncology technicians.