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Paper Abstracts of the 2016 APOS 13th Annual Conference

Symposia and Paper Abstracts

S1-1

Understanding the Universality of Sex and Gender in Cancer Care: The Emergence of Sex and Gender Medicine

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PURPOSE: Gender medicine is a sub-specialty that has gained increased recognition in healthcare internationally. The impetus for understanding gender as a complex biopsychosocial system has been driven primarily by a large number of recent studies. In 2001, the influential IOM Report, Exploring the Biological Contributions to Human Health: Does Sex Matter? established gender medicine as a field and documented the robust implications for health. The purpose of this presentation is to give a brief overview, current data in the field of sex and gender medicine and to outline potential areas for research in psychosocial oncology. **METHODS:** A comprehensive literature review was conducted of the current state of sex and gender medicine, including same and opposite sex relationships. In addition, cross-sectional data was collected (2009 to 2015) from adult outpatients at the City of Hope, a NCI CCC. Each new patient was asked to complete a validated touch screen biopsychosocial screening instrument either in English, Spanish and more recently Chinese, as the standard of clinical care. **RESULTS:** Depending on their gender, patients reported (N = 8,857) different levels of biopsychosocial distress and requests for assistance. Females (mean = 10.1) requested to talk with a member of the team significantly more than males (mean = 6.1), $p < .05$. The global data to be presented will give insight into how men and women affected by cancer manifest distress, request assistance and educational materials. **CONCLUSIONS:** Healthcare professionals have been remiss in appreciating the importance of research, tailoring clinical care, and educating ourselves about the rich diversity inherit in gender and sexual identity.
Research Implications: The literature suggests that females may be more willing than males to report distress, thus it is unclear if these findings show true gender differences or simple response bias. Future research studies are suggested to further explore gender differences in distress.
Clinical Implications: This information should be used to address immediate concerns and to develop ongoing educational programs that are carefully tailored, integrated and timed with medical care.

Funding: None.

S1-2

Couples Coping With Cancer Together (CCCT): A Model Program For Women With Cancer And Their Partners Integrated Into Standard Medical Care

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PURPOSE: Research shows that women with cancer report high levels of distress and partners can be as distressed. Women have better psychological adjustment to their illness if partners are emotionally supportive, but this is often where partners struggle. CCCT is a model program of psychosocial care for couples developed from research and integrated into standard medical care. **METHODS:** Opposite/same-sex couples diagnosed with breast cancer are scheduled into CCCT. Couples complete a tailored *SupportScreen* which identifies biopsychosocial problems, provides real-time triage, education, and linkage to multi-specialists. Couples participate in a standardized session with clinician-educators to review gender-specific supportive behaviors and develop a plan that can include individual/group counseling. Couples then meet with the surgeon/oncologist. Lastly, couples complete SupportScreen-Satisfaction tailored for each professional. **RESULTS:** January 2014 - September 2015 309 Patients were screened in 37 topics and 278 Partners in 33. Some examples of high distress areas are: Patients Treatment side-effects (59.9%), feeling anxious or fearful (48.8%). Partners Feeling anxious or fearful (27%) worry about future (26.3%). August 2014 - September 2015 166 patients/140 partners completed *SupportScreen*-Satisfaction. Couple Satisfaction: Important to talk about treatment and impact of diagnosis… (Patients 92%, Partners 97%); I recommend program… (Patients 94%, Partners 98%). Additional data and analyses will be presented. **CONCLUSIONS:** Integrating a psychosocial program for couples into standard medical care is feasible. Couples actively participate in gender based discussions and rate the program highly. Additional research needs to be developed to test long term outcomes.
Research Implications: There is a dearth of data concerning same sex couples and a need to further explore the unmet needs of this vulnerable and underserved group. Hypothesis driven research now needs to be developed for this model of care and gender-specific interventions to study performance outcomes.
Clinical Implications: Couples often struggle to support each other when a woman is diagnosed with cancer. Time

intervention to UI through a comparison of patients that received the interventions and those that did not. **METHODS:** 267 prostate cancer patients with persistent UI were randomized to two intervention groups and a usual care group. The intervention lasted 3 months, promoting pelvic floor muscle exercises and symptom self-management. An additional 69 eligible patients that declined participation were enrolled consecutively. Subjects were assessed at baseline, 3, and 6 months on UI and quality of life (QOL). The intervention nonparticipants received an interview at 6 months. Descriptive statistics were used to identify primary reasons of declination among the nonparticipants. The linear mixed effects models were performed to evaluate differences between the intervention participants and nonparticipants in UI and QOL. **RESULTS:** The intervention participants reported significantly fewer episode of leakage (p≤,02), better urinary function (p≤,001), less problems (p≤,05) and bothers (p≤,05) with UI at 3- and 6-months, and better quality of physical well-being at 6 months (p≤,001), as compared to the nonparticipants. The primary reasons of declination included transportation difficulty (30.8%), lack of time due to job or family demands (17.7%), and not considering UI treatment a priority (14.7%). Many intervention nonparticipants (>55%) had significant concerns about the cost of their time and effort for participation in the intervention study. **CONCLUSIONS:** The findings demonstrated the advantage of taking part in an intervention to UI by prostate cancer patients with persistent UI. Because the main barrier to intervention participation concerns economic resource, it is important that the intervention be delivered in a form that eases patient's burden. Addressing this concern will also enhance accessibility of the intervention treatment to a broader patient population.
Research Implications: The study intervention can be modified and further tested in future to make it more accessible and affordable to patients.
Clinical Implications: Clinicians should take an active role to advocate behavioral treatment of UI for prostate cancer patients with persistent UI.

Funding: The study was supported by the National Institutes of Health/National Cancer Institute (R01CA127493; PI: Zhang).

9-5

The Influence of Mindfulness Based Stress Reduction (MBSR(BC) for Breast Cancer survivors (BCS) on Serum Cytokines

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PURPOSE: The purpose of this R01 trial was to evaluate the efficacy of the MBSR(BC) program in improving immune function in serum cytokines TNF-α, IL6, and sTNFr1 compared to usual care (UC) among breast cancer survivors (BCS). **METHODS:** Among 322 BCS (Stage 0-III) randomized to either a 6-week (2-hour MBSR(BC) program) (n = 168) or a wait-listed UC regimen (n = 155) serum cytokines of TNF-α, IL6, and sTNFr1 were measured at baseline, 6 and 12 weeks. Healthy controls (n = 41) were also compared to the BCS on baseline serum cytokine levels. Differences between the MBSR(BC) and UC, were analyzed using linear mixed models. The analysis focused on whether improvement occurred at a faster rate for the MBSR (BC) group vs. UC by time point interaction. Differences at baseline between serum cytokines in BCS and healthy controls were measured using Wilcoxon rank sums test. **RESULTS:** Mean age was 56.6 years, and 69.4% were White Non-Hispanic. Most had stage I (33.8%) or II (35.7%) BC, and chemotherapy/radiation (35.7%). Trends observed on three cytokines for MBSR(BC). Significant increases for TNF-α ($p < .01$) and IL6 ($p = .05$), were observed. For TNF-α significant differences were observed between MBSR(BC) and UC (baseline to 12-weeks, $p < .01$) and (6- to 12-weeks, $p = .02$). Significant differences in IL-6 between MBSR(BC) and UC occurred baseline to 12-weeks, ($p = .05$) and 6 to 12-weeks, ($p < .01$). No differences in sTNFR1 were observed between groups. Healthy controls compared to BCS had significantly lower levels of sTNFR1 at baseline ($p < .01$; $d = 0.44$). **CONCLUSIONS:** Differences in cytokines were observed between the MBSR(BC) and UC groups. These differences varied based upon time during the study periods. For TNF-α and IL-6 there was a reduction during the 6-week intervention and an increase from 6 to 12 weeks, indicating that there may be differences possibly due to the practice conditions during the 6-week intervention.
Research Implications: Although we postulated MBSR (BC), a stress reducing intervention may modulate immune responses, further research needs to examine MBSR(BC) specific effects on decreasing inflammation to determine if there is an optimal duration of effect on the immune system.
Clinical Implications: Clinically, cancer patients need to be assessed for distress and negative emotions with the