MATERIALS AND METHODS: TNB adolescents and their cisgender siblings participated in a one-time, one-on-one semi-structured interview and survey. Interview data was coded to develop themes that then guided analysis of the survey data. To assess the fertility attitudes of TNB and their cisgender siblings and version of the Transgender Youth Fertility Attitudes Questionnaire (TYFAQ) was utilized. Possible answers to the TYFAQ included “agree,” “maybe,” or “disagree.” Outcomes were treated as ordinal and associations were analyzed using the Mann-Whitney U test.

RESULTS: A total of 40 participants were included in the analysis (29 TNB adolescents, 11 cisgender siblings). Four major themes were noted when comparing the two groups: 1) the role of gender identity and gender dysphoria in desire for future economic and social stability 3) perceived personal reproductive potential 4) future partner’s gamete compatibility. TNB adolescents were more likely to say they would consider adoption someday (93% vs 54%, p = .0068). Cisgender adolescents were more likely than TNB adolescents to say it is important to have biological children (65.5% vs 27%, p = .05). Cisgender boys were more likely to feel pressured by their family to have biological children than their transmasculine TNB peers (20% vs 0%, p = .04). In comparing heterosexual adolescents to those who identify as lesbian, gay, bisexual, or queer (LGBQ), heterosexual adolescents were more likely to say it is important to have biological children in the future (77% vs 18%, p=0.002). Among TNB adolescents, those currently using gender-affirming hormones were less likely to think their feelings about children might change in the future (p = 0.029). TNB adolescents with a prior diagnosis of gender dysphoria were more likely to say they wanted to have kids someday (71% vs 37%, p = 0.003) and less likely to say their family would be sad if they did not have biological children (0% vs 25%, p = 0.03). TNB adolescents who endorsed parental support were more likely to say it is not important to have biological children in the future (72% vs 25%, p = 0.05), and those that do not participate in a support group were more likely to say their parents would be disappointed if they did not have biological children (25% vs 0%, p = 0.003).

CONCLUSIONS: Sexual orientation and gender identity are important factors to consider when assessing an adolescent’s desire for future family building. TGN youth, on average, express lower desires for biological children when compared to their cisgender siblings, which is influenced by their experience with dysphoria and perception of community support. These factors should be considered when counseling adolescents on their future fertility and family building options.

O-158 2:05 PM Monday, October 19, 2020

CIRCULATING INFLAMMATORY MARKERS AND ENDOMETRIOSIS PAIN SYMPTOMS AMONG ADOLESCENTS AND YOUNG ADULT WOMEN. Amy L. Shafir, Sc.D.,1 Britani Wallace, MPH,2 Allison F. Vitonis, M.S.,3 Kathryn L. Terry, Sc.D.,2 Stacey A. Missmer, ScD3 1Boston Children’s Hospital and Boston Center for Endometriosis, Boston, MA; 2Brigham and Women's Hospital, Boston, MA; 3College of Human Medicine, Michigan State University, Grand Rapids, MI.

OBJECTIVE: Endometriosis is characterized by immune dysregulation. Limited research, particularly among adolescents and young adults (AYA), has investigated the association between circulating inflammatory markers and endometriosis-related pain symptoms.

DESIGN: Cross-sectional analysis of circulating inflammatory markers from 264 laparoscopically-confirmed endometriosis participants and 275 population-based controls from the Women’s Health Study: from Adolescence to Adulthood, a cohort of primarily AYA women.

MATERIALS AND METHODS: Participants completed the World Endometriosis Research Foundation (WERF) Endometriosis Phenome and Bio-banking Harmonization Project (EPHect) clinical questionnaire including items on presence and severity of dysmenorrhea and acyclic pelvic pain. Using multiplexed immunoassays, we measured interleukin (IL)-1β, -6, -8, -10, -16, tumor necrosis factor (TNF) α, monocyte chemoattractant protein (MCP)-1, -4, chemokine ligand (CCL) 17, and Interferon gamma-induced protein (IP) 10 in plasma samples collected and processed using the WERF-EPHect standards. We used linear regression to compute age-adjusted geometric mean (GM) marker levels with 95% confidence intervals (95%CI) for presence and severity of dysmenorrhea or acyclic pain among endometriosis cases and controls. We assessed effect modification by case status using the Wald test statistic.

RESULTS: More severe dysmenorrhea was associated with lower IL-8 levels among both endometriosis cases and controls [cases: IL-8 GMmsevere=6.62 (3.37-6.88) pg/ml, Pinteraction=0.03; controls: GMmsevere=6.47 (3.11-6.96) pg/ml, Pinteraction=0.08]. MCP-4 levels were lower among cases with severe [GMsevere=5.98 (5.53-6.47) pg/ml vs. GMsevere=6.62 (3.67-6.88) pg/ml, P=0.03; IL-8 GMsevere=2.87 (2.57-3.22) pg/ml vs. GMsevere=3.61 (3.41-3.81) pg/ml, P=0.01], but not among controls (Pinteraction=0.03) and decreased with increasing acyclic pelvic pain severity for cases but not controls (cases: Pinteraction=0.02, Pinteraction=0.07). Among MCP-4 levels decreased with increasing acyclic pelvic pain severity (Pinteraction=0.04), whereas IL-1β levels increased with increasing acyclic pelvic pain severity (Pinteraction=0.05) with no effect modification by case status (Pinteraction>0.12).

CONCLUSIONS: Among AYA participants, IL-1β, -8, MCP-1, -4, and TNFα were associated with the presence and severity of dysmenorrhea and acyclic pelvic pain, with differential associations by case status for IL-8, MCP-1, and MCP-4. No associations were observed for IL-6, -10, -16, CCL-17, or IP-10.

O-159 2:20 PM Monday, October 19, 2020

IDENTIFYING BEST FIT IMPLEMENTATION STRATEGIES FOR IMPROVING FERTILITY CARE FOR ADOLESCENT AND YOUNG ADULT (AYA) CANCER SURVIVORS. Anna Dormisch, BS, Emily Yang, BS, Jamie Gruspe, MPH, Bonnie N. Kaiser, PhD MPH, Teresa Helsten, MD, Paula Aristizabal, MD MAS, Hui-Chun I. Su, MD MSCE, University of California San Diego La Jolla, CA.

OBJECTIVE: Oncocentric care remains under-implemented with limited tools to scale up effective implementation strategies. Guided by the Consolidated Framework for Implementation Research (CFIR), the objective was to systematically assess factors that influence implementation of oncocentric fertility care and map strategies, particularly electronic health record (EHR) enabled ones, that fit adult and pediatric oncology care contexts.

DESIGN: Sequential mixed methods study.

MATERIALS AND METHODS: Using purposeful sampling, we recruited healthcare providers (HCPs) and female AYA cancer survivors from a comprehensive cancer center and a freestanding children’s hospital. Participants underwent semi-structured interviews and focus groups based on CFIR. Thematic analysis was used to develop inductive codes and CFIR provided deducive codes to characterize barriers and facilitators to oncocentric care and implementation strategies. Two coders independently coded each transcript with a third coder resolving discrepancies by consensus. Developed strategies were evaluated quantitatively by HCPs for acceptability, appropriateness and feasibility. Score range for each measure was 1-5; higher scores indicate tools to scale up effective implementation strategies. Guided by the Consol-