

# Abstracts from Women's Health 2019

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contribute to SIBI. Further, this association might be moderated by access to health care. The objectives of this study are to examine association between IPV and SIBI among U.S. women and to explore whether participants' insurance status modifies such association.

**Methods:** 2012-2015 National Pregnancy Risk Assessment Monitoring System data was analyzed (N=13,675). IPV before pregnancy (yes; no), insurance status (Private insurance; Medicaid; no insurance), and SIBI (yes: IBI <3 yrs.; no: IBI ≥3 yrs.) were examined. Multiple logistic regression analysis stratified by insurance status was conducted and adjusted odds ratios with corresponding 95% confidence intervals were calculated.

**Results:** After adjusting for confounders, women who reported IPV were 148% more likely to have SIBI compared to women who did not report IPV (AOR = 2.48, 95% CI = 1.41, 4.38). Further, the odds of SIBI was significantly higher among women with no insurance and women on Medicaid who reported IPV, compared to women who did not report IPV (AOR = 3.35, 95% CI: 1.07, 6.02 & AOR = 2.90, 95% CI = 1.06, 5.85; respectively).

**Conclusions:** Women who experience IPV are significantly more likely to have SIBI than women who do not experience IPV. Further, the risk of SIBI is highest among abused women who are uninsured or on Medicaid. This knowledge may facilitate screening and intervention for IPV in preconception care and early detection of women at risk for SIBI.

#### 10. A Population Based Study of the Combined Effect Of Interpregnancy Interval and Maternal Body Mass Index on Pregnancy Induced Hypertension in the U.S.

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**Background:** The incidence of pregnancy induced hypertension, one of the most frequent causes of maternal and neonatal morbidity, has increased significantly in the U.S. in last two decades. However, the reasons for this rise are not well explored. The interrelationship between interpregnancy interval (IPI), prepregnancy body mass index (BMI), and pregnancy induced hypertension might play a role in this rise. This study aims to investigate the combined effect of IPI and prepregnancy BMI on pregnancy induced hypertension.

**Methods:** The 2017 Vital Statistics Natality Data was analyzed (N=1,046,350). A combined variable was created using IPI and prepregnancy BMI. Adjusted odds ratios and 95% confidence intervals were generated for IPI and pre-pregnancy BMI, independently and combined, and pregnancy induced hypertension using multiple logistic regression models.

**Results:** IPI and prepregnancy BMI were statistically significantly associated with pregnancy induced hypertension, both independently and in combination, after adjusting for potential confounders. The largest effect size was observed among women with long IPI and obesity (Adjusted OR=4.01, 95% CI=3.84, 4.25). Further, short IPI in combination with underweight BMI was found to be inversely associated with pregnancy induced hypertension (AOR=0.64, 95% CI=0.53, 0.78).

**Conclusions:** When combined, IPI and BMI are crucial risk factors for pregnancy induced hypertension. The highest risk of

pregnancy-induced hypertension is in women with long IPI in combination with high BMI categories. Healthcare professionals should be cognizant of the additional increased risk of pregnancy induced hypertension for the overweight and obese women with long interpregnancy interval.

#### 11. Effect of Osteopathic Visceral Manipulation on Female Pelvic Congestion Syndrome

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**Background:** Pelvic congestion syndrome (PCS) is a chronic positional pelvic pain that lasts for more than six months. It is associated with pelvic and vulvar varicosities and symptoms of dyspareunia and postcoital pain. This study aimed to determine the effect of visceral manipulation techniques on pain and ovarian vein diameter in premenopausal women with PCS.

**Methods:** Thirty premenopausal women aged 35-45 years and body mass index was >25 kg/m<sup>2</sup> and <30 kg/m<sup>2</sup> participated in the study. They were diagnosed with dilated, tortuous ovarian veins with a width greater than 4 mm. They are randomly distributed into two groups. Control group received non-steroidal anti-inflammatory drug (NSAID), 400-800 mg PO /6hr for 10 days, and medroxyprogesterone acetate (MPA), 30 mg/day for 12 weeks. Study group received the same medical treatment, and visceral manipulation techniques on pelvis, 45 minutes, one session every 2 weeks for a total of 6 sessions for 12 weeks period. Pain was evaluated using Modified McGill Pain Questionnaire and ovarian vein diameter was evaluated using Doppler ultrasound at starting and after 12 weeks of treatment course.

**Results:** The control and study groups showed decreases in dullness (P=0.02; P=0.001), and pain rating index (P=0.02; P=0.001) respectively. Only study group showed a decrease (P=0.001) in ovarian vein diameter. Compared with the control group, the study group showed greater decrease (P=0.001) in dullness, pain rating index, and ovarian vein diameter.

**Conclusions:** The osteopathic visceral manipulative techniques by virtue of its philosophy decreases pain and ovarian vein diameter in premenopausal women with PCS.

#### 12. Development of Algorithms and App for Prevention, Evaluation and Therapeutic Orientation in Nipple Trauma from Breastfeeding

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**Background:** Breast milk is the best food for newborns. However, the nipple trauma from breastfeeding can lead to early weaning. We aimed to construct and evaluate the internal consistency of algorithms for prevention, evaluation and therapeutic orientation related to nipple trauma, and to develop an algorithm-based app.

**Methods:** The construction of the algorithms 'Prevention of Nipple Trauma from breastfeeding' and 'Evaluation and Ther-

apeutic Conduct in Nipple Trauma from breastfeeding' was based on a literature review on the subject. A total of 168 professionals of mother and childhood health were invited to participate as evaluators. Of these, 100 accepted and answered to an electronic questionnaire. The partial report was obtained, based on evaluators' responses to the questionnaire, and it was statistically analyzed.

**Results:** Professionals indicated predominantly the 'Excellent' and 'Good' responses to the questionnaire, considered as positive responses. More than 90% of the evaluators agreed that the algorithms might support the clinician's decisions. The Cronbach's Alpha for the algorithms 'Prevention of Nipple Trauma from breastfeeding' and 'Evaluation and Therapeutic Conduct in Nipple Trauma from breastfeeding' were 0.904 and 0.952, respectively. Through the information contained in the algorithms, an app for smartphones was developed.

**Conclusions:** The algorithms showed internal reliability for prevention, evaluation and therapeutic conduct in nipple trauma from breastfeeding, and they enabled the development of an application for smartphones, easy to access for mothers who are breastfeeding.

### 13. Menopausal Symptom Differences in Arizona: A Cross-Sectional Survey of Women From Different Socioeconomic Backgrounds

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**Background:** Menopausal symptoms can differ by geography and ethnicity, but the impact of socioeconomic factors is less clear. Our objective was to compare menopausal symptoms between women of different socioeconomic backgrounds in Arizona.

**Methods:** Women aged 40 - 65 from Phoenix and Scottsdale were surveyed. Phoenix participants completed surveys at a clinic for uninsured or a homeless clinic. Scottsdale participants received surveys via mail. Deidentified surveys in Spanish and English included the Greene Climacteric Scale (GCS) and demographic questions. GCS total and domain were evaluated with higher scores indicating more symptoms.

**Results:** Responses from 139 women from Phoenix and 163 from Scottsdale were analyzed. Scottsdale participants were on average 53.8 years old (SD 7.51), White (94.3%) and were insured (100%). Phoenix participants were on average 50.2 years old (SD 9.48), Hispanic (56.3%), White (25.8%) or African American (10.2%) and uninsured (53.2%). Total GCS scores were higher in the Phoenix cohort vs the Scottsdale cohort (40.9 vs 30.5,  $p < 0.01$ ), which was also seen by domain: psychological (21.7 vs 17.6,  $p = 0.01$ ), somatic (13.6 vs 9.5,  $p < 0.001$ ), depression (11.7 vs 8.0,  $p < 0.001$ ). No statistically significant differences were seen for the vasomotor (3.7 vs. 3.6,  $p = 0.597$ ) and anxiety domains (10.1 vs. 9.6,  $p = 0.671$ ). 2.3% of Phoenix women were on menopausal hormone therapy (HT) vs. 23.8% in the Scottsdale group ( $p < 0.001$ ).

**Conclusions:** Significant differences were found across these women despite geographic proximity. More women were on HT in the Scottsdale group which may partially explain these differences. However, the vasomotor results suggest that other variables such as socioeconomics and ethnicity may contribute.

### 14. Association Between Pre-Pregnancy Diabetes and Post-Partum Weight Retention in Urban Kampala: A Prospective Cohort Study

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**Background:** Increasing body mass index (BMI) after childbirth is an emerging public health concern among women in Uganda. We aimed at determining the predictors of weight retention among post-partum women in central Uganda.

**Methods:** A prospective cohort study used to follow-up 380 pregnant women attending prenatal care included women in the first trimester and followed up to six months postpartum in Kampala, Uganda. The outcome variable was post-partum obesity measured as a categorical BMI [ $\geq 25.0$ (yes)/ $< 25.0$ (no)]. A multi-variable logistic regression model using STATA/SEv15 was fitted controlling for maternal demographic, medical history and fertility characteristics as well as conducting effect modification reporting adjusted odds ratios (AOR) with  $p \leq 0.05$  considered statistically significant.

**Results:** Among 380 respondents, the mean age  $\pm$  standard deviation was  $23.6 \pm 2.4$  years, mean BMI  $\pm$  SD was  $22.6 \pm 1.7$  kg/m<sup>2</sup> and 39.5% ( $n = 150$ ) had pre-pregnancy diabetes. Factors independently associated with postpartum obesity were pre-pregnancy diabetes (AOR 6.2; 95%CI 3.2-7.9), having depressive symptoms (AOR 2.1; 95%CI 1.8-3.6) and pre-eclampsia (AOR 2.6; 95%CI 1.9-3.7).

**Conclusions:** Pre-pregnancy diabetes is strongly associated with postpartum weight retention among women in urban Kampala. Prevention efforts targeting pre-conception and prenatal care period may reduce adverse sequelae of pre-pregnancy diabetes.

### 15. Patients' Satisfaction in Subpectoral Breast Augmentation

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**Background:** Breast augmentation is the most performed aesthetic plastic surgery, not only in Brazil, but worldwide, and its main goal is patients satisfaction. Previous studies demonstrated its positive impact in women's quality of life, notably in self-esteem and sexuality. The present prospective study aims to evaluate satisfaction of women undergoing breast augmentation with implants.

**Methods:** Forty female patients with hypomastia, older than 18 years-old and candidates to surgical treatment were included and submitted to subpectoral breast augmentation with implants. They were evaluated pre and post-operatively (2 and 4 months) with Breast Q-Augmentation module, a PRO instrument validated in Brazil to assess several aspects of quality of life and satisfaction with surgical result. Different moments of evaluation were compared with analysis of variance (ANOVA).

**Results:** Patients were aged 19-42 years (median 29 years) and implant size varied from 175ml to 325ml (median 275ml). Significant improvement compared to pre-operative evaluation was observed in satisfaction with breasts ( $p < 0.001$ ), psychosocial well-being ( $p < 0.001$ ) and sexual well-being ( $p < 0.001$ ) at