

## Menstrual pattern among high body mass index (BMI) women. Does exercise improve menstrual heaviness?

Nadzratulaiman Wan Nordin<sup>1,2</sup>, Norazilah Mat Jin<sup>1,2</sup>, Noorkardiffa Syawalina Omar<sup>1,2</sup>, Zatul Akmar Ahmad<sup>1,2</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh Campus, Selangor, <sup>2</sup>Department of Obstetrics and Gynaecology, Hospital Al-Sultan Abdullah Universiti Teknologi MARA, Bandar Puncak Alam, Selangor

### ABSTRACT

**Introduction:** The epidemic of obesity is a growing worldwide public health concern. In Malaysia, the prevalence of obesity has increased rapidly in the last decade and women are more obese than men. Obesity is among the factors affecting menstruation while the effect of physical exercise on menstrual patterns is not widely explored. We aimed to assess the association between menstrual pattern and obesity as well as physical exercise. **Methods:** We conducted a cross-sectional study involving women aged 15-49 years who attended an open health screening programme. The women were neither pregnant nor on any hormonal therapy and without gynaecological pathology or metabolic syndrome. Natural or surgical menopausal women were excluded from this study. Anthropometric measurements including height (cm), weight (kg), waist circumference (cm) and hip circumference (cm) were taken by trained personnel. A one-to-one interview was conducted to complete a questionnaire which comprised of sociodemographic data and a validated menstrual bleeding questionnaire (MBQ). **Results:** A total of 153 women were recruited in this study. The mean age of respondents was 28 years old, and the majority was nulliparous (84.3%). Most of them were Malay (92.8%) and non-smokers (98.7%). There was a significant difference in the bleeding heaviness related to BMI. Patients with high BMI had a minimal flow of bleeding. There was no significant association between BMI and bleeding irregularity, dysmenorrhea, and quality of life. Exercise did not show an effect on the menstrual pattern among women with high BMI. **Conclusion:** Obesity may cause menstrual irregularity and physical exercise may not improve menstrual heaviness.

## Painful bladder syndrome/interstitial cystitis like symptoms among Malaysian women

Dasrihsyah RA<sup>1,2</sup>, Md Pauzi SF<sup>1</sup>, Wagimon NW<sup>2</sup>, Lim PS<sup>2</sup>, Kamisan Atan I<sup>1,2</sup>

<sup>1</sup>Department of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia, <sup>2</sup>Department of Obstetrics and Gynaecology, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia

### ABSTRACT

**Introduction:** Painful bladder syndrome/interstitial cystitis (PBS/IC) also known as bladder pain syndrome (BPS) is a chronic bladder pain condition with significant negative impact on the quality of life. We aimed to determine the prevalence of painful bladder syndrome/interstitial cystitis-like symptoms among Malaysian women. **Methods:** This was an ethics-approved cross-sectional study conducted among women in the community between 1 Nov 2022 to 25 January 2023. A validated, self-administered O'Leary-Sant Interstitial Cystitis Symptom and Problem Index (OSPI) questionnaire was distributed through convenient sampling via a social media platform. "Probable PBS/IC" was defined as patients without urinary tract infections within the previous month but had severe symptom and problem index scores (each  $\geq 12$ ) including nocturia  $\geq 2$  and pain  $\geq 2$ . **Results:** A total of 903 women were included in the analysis. The majority had minimal or no symptoms i.e., 77.2% (n=697), which seemed to affect all age groups. 14.4% (n=130), 7.2% (n=65) and 1.2% (n=11) had mild, moderate and severe symptoms. Women aged between 31-40 years seemed to be the most in reporting minimal to moderate symptoms. The majority of women 80.6% (n=728) experienced minimal or no symptoms, 12.8% (n=116) had mild problems, 5.9% (n=53) had moderate and only 0.7% (n=6) with severe problems. Women aged 61-70 seemed to be the majority in severe problem scores ( $\geq 12$ ). Only three out of the whole population (0.33%) fulfilled the criteria for probable PBS/IC. **Conclusion:** The prevalence of PBS/IC-like symptoms in this study was low i.e., 0.33% similar to 0.26%-0.57% reported in previous studies involving Asian, European, and United States women, respectively.