

スポーツ科学研究, 11, 35-68, 2014 年

## Use of the pregnancy physical activity questionnaire (PPAQ) to identify physical activity associated with gestational weight gain during pregnancy

Mi Xiang<sup>2</sup>, Masayuki Konishi<sup>1</sup>, Naoya Endo<sup>2</sup>, Mio Nishimaki<sup>2</sup>,  
Karina Ando<sup>2</sup>, Hyeon-Ki Kim<sup>2</sup>, Hiroki Tabata<sup>2</sup>, Shizuo Sakamoto<sup>1</sup>

<sup>1</sup>Faculty of Sport Sciences, Waseda University

<sup>2</sup>Graduate School of Sport Sciences, Waseda University

The purposes of this study were to (1) test the reliability and validity of PPAQ; (2) investigate the association between physical activity (PA) measured by the PPAQ and GWG for Chinese pregnant women. First, the validation of the PPAQ was carried out among 27 women. Second, PPAQ and food frequency questionnaires (FFQ) were completed among 203 women. The associations between PA during pregnancy and GWG were explored in linear logistic regression models.

The results of this study showed that the scale was reproducible (ICC = 0.77), and correlation between PPAQ and pedometer was significant ( $r = 0.63$ ). PA (METS > 3)

measured with PPAQ were  $12.8 \pm 11.1$ ,  $19.0 \pm 17.1$ , and  $26.6 \pm 25.5$  MET · h/week, respectively for women at 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> trimester. The GWG was 1.9 kg, 7.9 kg and 12.1 kg, respectively. In adjusted analysis, exercise habits before pregnancy was associated with GWG. The associations between PA (METS > 3), education, job, and income were not significant. The study provides evidence that the PPAQ is acceptable for pregnant women. However, PA measured with PPAQ was found not related with GWG. Further study should be carried out whether PPAQ can be used to identify the relationship between PA and GWG.