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PRAPAWADEE PILOMPOL: POSTURAL CHANGES OF PREGNANCY
IN FULL TERM PRIMIPARAS DURING STANDING AND SITTING. THESIS
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This study investigated the postural changes in pregnancy during standing and sitting positions. Thirty primiparas aged between 15 and 35 years were recruited in this study. Head, thoracic, lumbar, pelvic inclination and pelvifemoral angles were recorded while standing and sitting by using Motion Analysis ExpertVision™ system. Knee and ankle angles were also recorded when standing. Three assessments were performed in this study. The first assessment was performed at 13 to 22 weeks gestation. Subjects were then analyzed every 10 ± 1 weeks until full term pregnancy.

The results showed asymmetry of head, knee and ankle angles between left and right sides while standing. Head and pelvic inclination angles also showed asymmetry between left and right sides while sitting. There were significant differences in some posture variables as pregnancy progressed. While standing, the lumbar lordosis, anterior pelvic tilting and knee flexion showed significant increases, while hip flexion showed significant decrease. While sitting, posterior pelvic tilting showed significant increase, while hip flexion showed significant decrease. For comparison of spinal curvatures and pelvic inclination between sitting and standing, the thoracic and lumbar angles were significantly greater in sitting than in standing. Posterior pelvic tilting was shown in sitting, whereas anterior pelvic tilting was shown in standing. Mean differences increased as gestation age increased.

In conclusion, the data presented in this study are useful to design an exercise program for antenatal care. Moreover, the alternations between sitting and standing positions should be recommended during pregnancy, particularly in the final period of pregnancy.