

Mother's anxiety and depression and associated risk factors during early pregnancy: effects on fetal growth and activity at 20–22 weeks of Gestation

#### ABSTRACT

To examine effects of mother's anxiety and depression and associated risk factors during early pregnancy on fetal growth and activity. Repeated measures of mother's anxiety (State-Anxiety Inventory (STAI-S)) and depression (Edinburgh Postnatal Depression Scale (EPDS)) and related socio demographics and substance consumption were obtained at the 1st and 2nd pregnancy trimesters, and fetus' (N¼147) biometric data and behavior was recorded during ultrasound examination at 20 –22 weeks of gestation. Higher anxiety symptoms were associated to both lower fetal growth and higher fetal activity. While lower education, primiparity, adolescent motherhood, and tobacco consumption predicted lower fetal growth, coffee intake predicted lower fetal activity. Vulnerability of fetal development to mother's psychological symptoms as well as to other sociodemographic and substance consumption risk factors during early and mid pregnancy is suggested.

Keywords: Anxiety, depression, pregnancy, fetal growth, fetal activity