SPECIAL ARTICLE

OUTCOMES OF PREGNANCY IN A NATIONAL SAMPLE OF RESIDENT PHYSICIANS

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Abstract *Background.* Physically demanding, highly stressful work during pregnancy has been reported to cause a variety of adverse outcomes. It has been difficult, however, to separate the effects of work from those of socioeconomic status.

Methods. By means of a national questionnaire-based survey, we studied the outcomes of pregnancy during residency for 4412 women who graduated from medical school in 1985 and for the wives of 4236 of their male classmates, who served as controls.

Results. The rate of response to our survey was 87 percent (4412 of 5079) for the women residents and 85 percent (4236 of 4968) for the wives of the male residents. There were no significant differences in the proportion of pregnancies ending in miscarriage (13.8 percent for residents vs. 11.8 percent for their classmates' wives, P = 0.12), ectopic gestations (0.5 percent vs. 0.8 percent, P = 0.69), and stillbirths (0.2 percent vs. 0.5 percent, P = 0.20). There were 989 women residents and 1238 residents' wives whose first pregnancy during residency resulted in the live birth of a singleton infant. Although during each trimester the women residents worked many more hours than the wives of the male residents, the frequency of preterm births (<37 weeks' gestation) was similar: 6.5 percent for residents and 6.0 percent for residents' wives (odds ratio = 1.1; 95 percent confidence interval, 0.7 to 1.5). Infants who were small for gestational age (with birth weights less than the 10th percentile for gestational age) were born to 5.3 percent of the residents and 5.8 percent of the residents' wives (odds ratio = 0.9; 95 percent confidence interval, 0.6 to 1.3). Adjustment for factors that differed between the women residents and the wives of male residents resulted in odds ratios of 1.2 (95 percent confidence interval, 0.8 to 1.7) for preterm delivery and 0.9 (95 percent confidence interval, 0.6 to 1.3) for the delivery of an infant who was small for gestational age. However, the women residents more frequently reported having had preterm labor (11 percent vs. 6 percent), but not preterm delivery (6.5 percent vs. 6.0 percent); preeclampsia was also more common among the women residents (8.8 percent vs. 3.5 percent).

Conclusions. These results suggest that working long hours in a stressful occupation has little effect on the outcome of pregnancy in an otherwise healthy population of high socioeconomic status. (N Engl J Med 1990; 323: 1040-5.)

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[illegible] r Pediatric Epidemiologic Research, Snowbird, Utah, June 12, 1990.

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METHODS

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