

CHILD EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE DURING PRENATAL PERIOD

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Background and Aims: Worldwide, it is estimated that 250 million women smoke cigarettes every day. Despite the adverse health consequences of tobacco smoking and exposure during pregnancy, the percentage of pregnant women who smoke remains extremely high. The aim of the study was to evaluate the prenatal child exposure to environmental tobacco smoke.

Methods: The study population consisted of 1093 pregnant women from different regions of Poland among whom detail questionnaires were conducted three times during pregnancy period. From all women included into the study the saliva sample was collected to verify smoking status in pregnancy. The cotinine level in saliva was analyzed using high performance liquid chromatography coupled with tandem mass spectrometry/positive electrospray ionisation (LC-ESI⁺MS/MS) and isotope dilution method.

Results: The percentage of pregnant women who smoked cigarettes decreased from 17.6% at the beginning of pregnancy to 14.1% at 12 weeks of pregnancy and 10.9% at 32 weeks of pregnancy. The highest percentages of smokers were noted among single women with lower educational level and unemployed. The sensitivity of questionnaire was 73% and cotinine as the biomarker of exposure 93%. About 70% of pregnant women were exposed to environmental tobacco smoke.

Conclusions: All effort should be taken to eliminate the pregnant women exposure to active and passive smoking.