

# Impact of Tobacco Smoking before Pregnancy on Quality of Life of Pregnant Women: A National Cross-Sectional Study

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**OBJECTIVES** : The prevalence of smoking in women younger than 40 years old has increased significantly in recent years. Though most of women who smoked before pregnancy are not likely to continue to smoke after they become pregnant, it has been proved that EuroQoL in ex-smokers is significantly lower than that in non-smokers. Moreover, they might develop smoke-related diseases due to previous smoking or suffer from smoke-related health consequences, which impaired their quality of life.

**METHODS** : A national based cross-sectional study was conducted to determine the association between different smoking status and health-related quality of life (HRQoL) in pregnant women from diverse regions in China. A web-based questionnaire was asked during prenatal examination. HRQoL was measured through the EuroQoL five-dimension-five-level questionnaire and demographic data were collected.

**RESULTS** : Totally 16,811 participants were included in this research. Significant difference in EQ-VAS scores were detected between non-smokers and ex-smoker ( $p < 0.001$ ) but there's no significant difference between ex-smokers and smokers ( $p = 0.247$ ). In ex-smokers, the proportion of pregnant women who suffer from health-related consequences in depression/anxiety dimension is much higher ( $p < 0.001$ ). Moreover, increased amounts of tobacco smoking before pregnancy could result in lower EQ-VAS and EQ-index ( $p = 0.036$  and  $p = 0.005$  respectively).

**CONCLUSIONS** : Compared with non-smokers, ex-smokers in pregnant women had lower HRQoL. Also, it indicates that tobacco cessation during pregnancy did not improve HRQoL of ex-smokers apparently. Negative effects of smoking before pregnancy on HRQoL of pregnant women was in dose-response relationship. For women who smoked before being pregnant, they are more possible to suffer from health-related consequences in depression or anxiety. Tobacco smoking is becoming popular in young women and it is a severe health problem for their future pregnancy which was less addressed in the past. Government and clinicians are supposed to give more attention to ex-smokers in pregnancy and smokers in young women who intend to be pregnant.