Objective. Smoking is one of the most preventable causes of death, and rates tend to be higher in Southern states and rural areas. Of particular concern is the number of women who smoke during pregnancy. Smoking during pregnancy has been linked with not only health consequences for the mother but also premature birth, low birth weight, and numerous poor physical and mental health outcomes for the child exposed in utero. Research demonstrates a variety of psychosocial concerns contribute to smoking initiation and maintenance among adults. Some of these risk factors include mental illness including attention difficulties, anxiety, and depression; low self-esteem; high stress levels; and the presence of weight concerns. Little attention has been paid to pregnant populations in rural areas with high rates of smoking. This exploratory study sought to examine psychosocial risk factors for smoking in pregnant women in Southern Appalachia.

Method. As part of a large-scale pregnancy intervention project, 222 pregnant women were recruited at entry to prenatal care and assessed to delivery. Participants completed measures of smoking behavior; weight concern (Weight Concern Scale); body image (Body Image Concern Inventory); eating disordered behavior (Eating Attitudes Test-26); depression (Center for Epidemiological Studies Short Depression Scale); attention difficulties (Current Symptoms Scale); stress, two forms of social support, and self-esteem (Prenatal Psychosocial Profile); and a demographics questionnaire. One hundred ninety-one participants with complete records on variables of interest were retained for analyses. The participants ranged in age from 15-42 years with a mean age of 24 years. Forty-five percent of the sample were married. The majority of participants were high school graduates (42%) with 63% reporting a high school education or less. Almost half (47%) were unemployed and almost one-third (31%) worked full-time. More than half (56%) reported having smoked while pregnant.

Results. T-tests were conducted to compare smokers and non-smokers. Smokers reported lower weight concerns, support from both partners and others, and self-esteem, as well as higher attention difficulties, depression, and stress as compared to non-smokers ($p<.05$). A stepwise logistic regression was conducted with smoking status as the dependent variable and all the significant measures from the t-tests as predictors. While each variable independently was predictive of smoking status, stress entered the equation first and correctly classified 71% of smokers ($R^2=.168$). Support from others entered the equation on the second step and this model correctly classified 75% of smokers ($R^2=.197$). The remaining variables were non-significant.

Discussion. These findings hold implications for reducing smoking behavior during pregnancy. Specifically, stress and social support are important variables to assess and address as part of smoking cessation interventions with pregnant women in Southern Appalachia.