

Association Between Tobacco Consumption and Caloric Deficiency Among Adolescents: A Study of Hunger Suppression in Jaipur's Urban Slums

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Abstract

Tobacco consumption among adolescents in low-income urban settings has emerged as a critical public health concern, not only due to its addictive potential but also because of its influence on dietary behavior and nutritional status. In contexts marked by food insecurity, tobacco is often used as a coping mechanism for hunger suppression, potentially exacerbating caloric deficiency. This study examines the association between tobacco consumption and caloric inadequacy among adolescents residing in urban slums of Jaipur, India, with particular emphasis on appetite suppression and meal-skipping behaviors. A cross-sectional, community-based survey was conducted among 900 adolescents, comprising 450 tobacco users and 450 non-users, selected through a stratified sampling design from six urban slum clusters. Data were collected on socio-demographic characteristics, tobacco use patterns, hunger-related behaviors, and daily calorie intake. Caloric adequacy was assessed using age- and gender-specific Recommended Dietary Allowance (RDA) standards. Statistical analysis included independent samples t-tests to compare mean calorie intake between groups and chi-square tests to examine associations between tobacco use and behavioral and nutritional indicators. The findings revealed that tobacco users had a significantly lower mean daily calorie intake compared to non-users (1855 kcal vs. 2092 kcal; $p < 0.001$). A substantially higher proportion of tobacco users fell below the RDA threshold (83.1%) compared to non-users (65.8%). Moreover, tobacco use was significantly associated with increased prevalence of meal skipping ($p = 0.0005$) and appetite suppression ($p = 0.003$). These results suggest that tobacco consumption among adolescents is closely linked to hunger suppression behaviors and caloric deficiency. The study highlights the need for integrated interventions addressing both tobacco cessation and nutritional vulnerability in urban slum populations.

Index Terms

Tobacco Consumption, Hunger Suppression, Caloric Deficiency, Urban Slums, Adolescents