



# The Relationship between Adolescent Cigarette Addiction and the Development of Pathological Gambling



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## Introduction

- Pathological gambling is a serious issue affecting millions of Americans. Due to their gambling habits, these Americans will be subject to a range of psychological, psychiatric, and social consequences (Fong 2005, Welte et al. 2015).
- Research has demonstrated a strong comorbidity between nicotine usage and gambling behavior, with one study finding as high as 60% of pathological gamblers using nicotine (Cunningham et al., 1998).
- However, despite the serious risks implicated in pathological gambling, there is little research as to identifying viable indicators of adult pathological gambling behavior in adolescence.

## Research Questions

- Are adolescents with cigarette addictions more likely to become pathological gamblers in adulthood?
- Are they also more likely to be pathological gamblers as a minor?

## Methods

### Sample

- Respondents (n=43,093) were drawn from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), representing the civilian, non-institutionalized adult population of the US. 15,895 respondents identifies themselves as cigarette addicts, of which 6,823 began as minor, and 166 identifies themselves as pathological gamblers, of which 16 began as minors.

### Measures

- Cigarette addiction was measured by asking “age when began smoking cigarettes every day?” and dividing into a groups who began as minors, adults, or non-addicts.
- Pathological gambling was measured by asking “age at onset of pathological gambling and likewise, divided those who began as minors, adults, or non-pathological gamblers.
- Sex was used as a moderating variable.

## Results

### Bivariate

- Chi-Square analysis showed that pathological gambling is **significantly** related to cigarette addiction. ( $p = 0.000$ ).
- A Logistic Regression model produced a 0.001 OR for minor cigarette addicts, which decreased by 44% for adult addicts and 81% for non-addicts.

### Multivariate

- Logistic regression analyses showed that cigarette addiction within all age groups were significantly related to pathological gambling when using sex as a moderating variable. The OR for male minor addicts was .012 which decreased by 49% for females,  $P=0.00$  (Fig 2).
- Controlling for sex, the OR of adult addicts was 45% less, and 80% less for non addicts,  $P=.002$ , .00 respectively. All odds ratios decreased by 40% for females,  $P=.003$ .

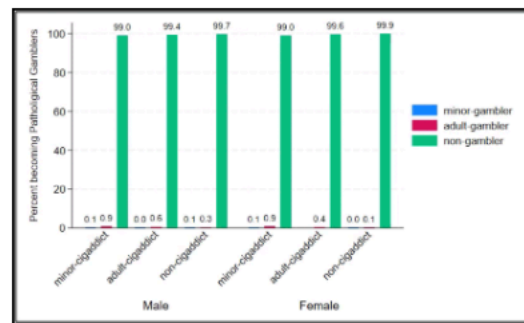


Figure 1: Proportion of Respondents within Each Subgroup who Become Pathological Gamblers

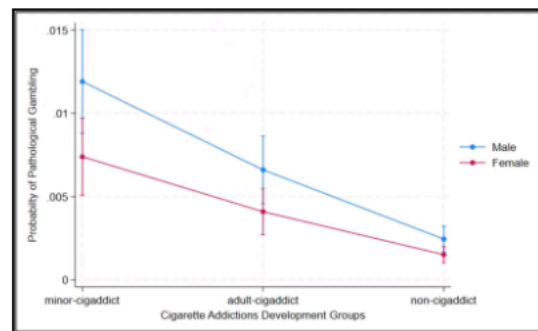


Figure 2: Likelihood of Pathological Gambling by Sex among Cigarette Addiction Subgroups

## Discussion

- Analysis revealed that minors with cigarette addictions **were** more likely than adult or non addicts to become or be pathological gamblers.
- However, because that probability was still so small, adolescent cigarette addiction is not a viable indicator of adult pathological gambling.
- Further research should focus on other possible indicators or other comorbid conditions of pathological gambling.

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