INTRODUCTION

• Tobacco smoking is an important public health issue; its association with internalizing disorders (anxiety disorders and major depression) has been long recognized.

• Few studies have examined the developmental relationships between tobacco smoking and internalizing behaviour problems from childhood to adolescence and adulthood.

OBJECTIVES

The present study aims at examining:

• The association between internalizing behaviour during childhood (6-12 years of age) and tobacco smoking during adolescence (16 years of age).

• The association between tobacco smoking during adolescence and the incidence of anxiety disorders and major depression during late adolescence/early adulthood (17-22 years of age).

METHOD

Sample

• 863 male and female Canadian participants, followed longitudinally from 6 to 22 years of age

Measures

• Childhood internalizing behaviour: Developmental trajectories from 6 to 12 years of age (High/Moderate/Low)

• Adults internalizing disorders: At least one anxiety diagnostic or one depressive episode between 17 and 22 years of age based on the Diagnostic Interview Schedule (DIS)

• Tobacco smoking: smoker/non-smoker status at 16 years of age

• Control variables:
  • Sex
  • Externalizing behaviour at 6 years of age (inattention-hyperactivity, aggression-opposition)
  • Socio-economic status (SES)
  • Parents/siblings tobacco smoking

Statistical procedure

• Binary logistic regression analysis

RESULTS

• Children on the high internalizing behaviour trajectory were approximately twice less likely to be smokers at 16 years of age (OR = 0.55, \( \chi^2 \) Wald = 4.96, \( p < .05 \)) than children on moderate and low trajectories.

• This association remained statistically significant after controlling for sex, SES, childhood externalizing behaviour, and parents/siblings tobacco smoking.

• Adolescent smokers were approximately two times more likely to suffer from at least one anxiety disorder (OR = 1.7, \( \chi^2 \) Wald = 8.46, \( p < .01 \)) or one depressive episode (OR = 1.73, \( \chi^2 \) Wald = 4.14, \( p < .05 \)) during late adolescence/early adulthood, compared to non-smokers.

• These associations remained statistically significant after controlling for sex, SES, childhood externalizing and internalizing behaviours, and parents/siblings tobacco smoking.

CONCLUSION

• High levels of childhood internalizing behaviour acted as a protective factor against smoking.

• Tobacco smoking during adolescence increased the risk to exhibit anxiety disorder and major depression in late adolescence/early adulthood.

• These associations were not moderated by sex

• These results suggest that social-behavioural inhibition displayed by children with high levels of internalizing behaviour may reduce the probability of smoking initiation by reducing exposure to peer smoking.

• These results also draws attention to the adverse effects of tobacco smoking on adolescent/adulthood mental health.

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