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Conscientiousness in childhood is a predictor of adult smoking behaviour

Differences in conscientiousness between social groups could help explain health inequalities

Conscientious children are less likely to smoke in later life and the personality trait could help explain health inequalities, indicates a study published in the **Journal of Epidemiology & Community Health**.

It is well known that people belonging to lower socio-economic groups have lower life expectancy and more health problems than those who are in higher groups, and certain health behaviours, such as smoking, follow a similar pattern, suggesting they could be partly responsible for health inequalities.

Recently, certain personality traits have been found to be associated with health outcomes and health behaviours and to follow a similar social gradient to smoking and health outcomes. In particular, conscientiousness, the tendency to be self-controlled, dutiful, reliable and achievement oriented, has been linked to longer life expectancy and certain health behaviours. However, it is has not been clear whether conscientiousness is a cause or consequence of social inequalities.

To gain a greater understanding of the influence of conscientiousness on smoking and its social gradient, the researchers assessed the relationship of the two over the life course. Using data from the 1958 National Child Development Study, they examined the extent to which two measures of conscientiousness - one assessed using a personality questionnaire at age 50 and one derived from three related items assessed at age 16 years - explained the social gradient of smoking at age 50.

They used a logistic regression model which took account of social class at birth, cognitive ability, attention and conduct problems at age 7, and educational qualifications attained across adulthood.

Childhood conscientiousness was found to be a significant predictor of smoking at 50 years explaining 5% of the social gradient in prevalence of the habit after these influencing factors had been taken into account.

“That childhood conscientiousness explained a small proportion of the social gradient of smoking at age 50 - independent of educational attainment, childhood cognitive ability, attention and conduct problems, and childhood social class - suggests that childhood conscientiousness is not merely an indicator of social class or cognitive ability,” say the authors.

Adult conscientiousness was a significant but lesser predictor than childhood conscientiousness of smoking behaviour at age 50, even after controlling for educational attainment at age 50, cognitive ability, attention and conduct problems at age 7, and social class at birth. However, when conscientiousness in childhood was also factored in, the relationship between adult conscientiousness and smoking became non-significant, suggesting that protective effects of adult conscientiousness may in fact arise during childhood.

The authors say: “Importantly, childhood conscientiousness emerged as a stronger predictor of smoking than adult conscientiousness and statistically accounted for the association of conscientiousness measured at age 50 with smoking, suggesting that the personality trait conscientiousness is a predictor rather than a product of social differences in smoking.”

Other studies have shown that self-control in childhood is an important factor for health outcomes in adulthood, but there are likely to be other mechanisms involved in the protective effects of conscientiousness, such as compliance with treatment and preventive advice, which have not been examined, the authors say. “An important question for future research will be the investigation of specific mechanisms involved in the association between high conscientiousness in childhood with lower likelihood of smoking in adulthood.” they say.

The authors acknowledge that the study has several limitations, including that many participants in the National Child Development Study were lost to follow up over time, with smokers and those of lower social status and lower conscientiousness scores less likely to have completed the 50-year assessment. In addition, other factors which could have had an influence on smoking behaviour, such as parental smoking and smoking-related medical issues, were not taken into account.