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LETTER TO THE EDITOR

Oversimplification of socioeconomic position and health practice behaviour encourages ambiguity in results

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To the Editor,

RE: Socioeconomic gradient shifts in health-related behaviour among Slovak adolescents between 1998 and 2006

Following a lack of research into the relationship between socioeconomic position (SEP) and health-related behaviour (HRB) in Central European adolescents, Pitel et al. (2013) aimed to rectify that by analysing the HRBs of schoolchildren in Kosice, Slovakia in 1998 and 2006. Central Europe is an area of interest as it has recently undergone rapid social transition, which may have expanded the SE gap. Similarly, whilst general populations tend to demonstrate a "traditional gradient" between SEP and HRBs, this relationship tends to be absent, smaller or more inconsistent amongst adolescents. Furthermore, the study attempted to analyse findings separately for boys and girls, as previous research has indicated that patterns may be different between genders.

Pitel et al. (2013) conducted two cross-sectional surveys in 1998 and 2006 using random, stratified samples amongst first year students in 1998 and eighth and ninth year students in 2006, due to a change in the educational system in this time. Whilst the researchers have adjusted well to this change, they ignore the fact this may have an impact on HRBs by changing child educational development. Moreover, the fact that this study took place in Kosice, commonly described as the economic hub of Slovakia, may skew the data as more SE deprived areas of the country will have been overlooked. Also, 20 % of schools did not participate in the research, potentially reducing the reliability of the study due to a lack of full population representation (Pitel et al. 2013). Participation rates were excellent at 96.3 % in 1998 and 93.0 % in 2006; however, the total questionnaires completed in 2006 (1,081) was under half of that in 1998 (2,616), increasing the likelihood of type II error.

Measures of SEP were made by defining two groups based on parental education, with high SEP being parents with university education (Pitel et al. 2013). Whilst this must be kept simple for use of adolescents, the relationship between parental education and SEP is a weak one. Importantly, it is not explained how individuals were allocated if a parent were highly educated but unemployed, a single parent or even area of profession, all which have significant impact on SEP. A potentially more reliable method would have been to describe parental occupation and then allocate using the National Statistics Socio-economic Classification.

Similarly, the measures of health-related behaviour are simple, asking for recent alcohol consumption, smoking habits and physical activity (Pitel et al. 2013). Whilst, on one hand, these questions are simple and thus suitable for the young sample, they may however provide ambiguous results such as number of times consumed alcohol in the past 4 weeks, which could vary in health consequences depending on the number of units consumed per sitting.

Results of the study are displayed clearly in separate tables for boys and girls, which exhibit the quantitative changes in health behaviour between the social classes in 1998 and 2006. Criticism of the results is due to the difference in sample sizes between the 1998 and 2006 cohorts, which reduces the reliability of the findings as they are not easily comparable samples. Furthermore, the social

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demographic of the two cohorts is different as there are significantly more low SEP students in the 1998 cohort compared to the similar levels in 2006. The results are found to be interesting, but in particular the results fail to show a significant increase in alcohol consumption amongst low SEPs which may have been a type II error considering the fall in sample size.

Despite some limited measures of their parameters and significant cohort differences between the two time periods, this study manages to demonstrate interesting information regarding differences in health behaviours between SEPs in adolescents. The possible explanations for their trends are interesting, as they draw from diffusion-of-innovation theory to explain the late increase in substance use amongst girls and low SEPs. However, this process is expected to take much longer time and differences between health behaviour trends, especially physical inactivity which fell universally, make this data particularly hard to explain.

In light of this study, more comprehensive research is required in this area to define any real changes and a longer time period of study may help future correlations and trends easier to explain.

Reference

Pitel L, Madarasova Geckova A, Reijneveld SA, van Dijk JP (2013) Socioeconomic gradient shifts in health-related behaviour among Slovak adolescents between 1998 and 2006. Int J Public Health 58(2):171–176. doi:10.1007/s00038-012-0382-9