

Wales, and the Scottish Adolescents Lifestyle and Substance Use Surveys between 1998 and 2015, including 247,515 13 and 15 year-old respondents. Segmented regression analyses examined trends for smoking prevalence (ever smoking and weekly smoking) and perceived smoking norms, testing for change in trend from 2011–15. Falsifiability checks examined change in trends for alcohol use and cannabis use for the same period.

Results In final models for the whole sample, there was no change in rate of decline for ever smoking (OR=1.01; CI 0.99 to 1.03), with a marginally significant slowing in the rate of decline for weekly smoking (OR=1.04; CI 1.00 to 1.08). This slowing decline in weekly smoking was however limited to groups for whom rates were declining prior to 2010 at a rate which could not be sustained (i.e. girls and 13 year olds), and occurred in a greater magnitude for other substances, including cannabis use (OR=1.21, CI 1.18 to 1.25) and alcohol use (OR=1.17; CI 1.14 to 1.19). There was consistent evidence across all subgroups of an increased rate of decline in the percentage of young people saying that smoking is ok (OR=0.83; CI 0.81 to 0.86).

Conclusion We found no evidence that the growing prevalence of e-cigarette use has led to increased experimentation with smoking, and some evidence that young people's perceptions against smoking as a normative behavior have hardened rather than softened. Although the decline in weekly smoking rates is slowing, this appears to reflect a floor effect and is of smaller magnitude than change in trend for other substances. While the idea that e-cigarettes renormalize smoking has been central to much policy debate surrounding regulation, these findings indicate no reason to believe that this renormalization is occurring.

OP60 DIFFUSION OF THE ASSIST SMOKING PREVENTION PROGRAMME IN ADOLESCENT SOCIAL NETWORKS BEYOND THE SCHOOL SETTING

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Background Smoking prevention programmes that aim to reach adolescents before they start to experiment with tobacco may contribute to reducing tobacco use. ASSIST (A Stop Smoking in Schools Trial) is a peer-led, school and social network based, smoking prevention programme that encourages the dissemination of non-smoking messages among 12–13 year olds in the UK. To date, evaluation of ASSIST has focused on delivery within schools only. This study sought to address this gap by using qualitative social network research to map the social networks of peer supporters to explore the extent, nature, content and perceived impact of message diffusion beyond the school year.

Methods Qualitative, face to face interviews conducted in school with 16 young people aged 12–13 incorporating the creation of 'egocentric sociograms' to collect network data. Sociograms were then used to create a qualitative narrative to explore the extent, and perceived impact, of message diffusion in the wider social networks of peer supporters. Computer packages UCINET and NVivo were used to conduct analysis.

Results Peer supporter networks were fairly large with a total of 155 people. Network composition was weighted slightly more toward family members than friends. Peer supporters recalled having conversations about smoking with 103 people. Over half (53% n=55) of these conversations were with people out with their school year (e.g. parents, siblings, other family members, family friends and neighbours). Thematic analysis of conversation content revealed three types of conversation: protecting non-smokers from starting to smoke; encouraging smokers to stop; and protecting people in wider social networks. Perceived impact was noted for 37 people in peer supporter networks, with examples of positive and negative impact, focusing on the dynamics of a child speaking to an adult.

Conclusion Smoking prevention message diffusion was not limited to school year, reaching in to the wider networks of peer supporters. This creates learning opportunities for the future delivery of ASSIST or other similar peer-led interventions for smoking prevention, and the role of social network interventions in prevention.

Mental health

OP61 CHRONIC INFLAMMATION AND SUBSEQUENT DEPRESSIVE SYMPTOMS: THE MEDIATING ROLE OF PHYSICAL ACTIVITY

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Background Chronic inflammation has been associated with the onset of depression, but the mechanisms underlying this relationship remain elusive. This study examined whether physical activity (PA) explained the association between elevated levels of inflammatory markers and subsequent depressive symptoms in an English nationally representative sample.

Methods The sample consisted of 2953 men and women (aged 50+) recruited from the English Longitudinal Study of Ageing (ELSA) an ongoing, open, representative prospective cohort study. Four waves of data between 2008/09 (wave 4) and 2016/17 (wave 8) were analysed. Serum levels of inflammatory markers (C-reactive protein (CRP)) and covariates (age, sex, education, wealth, body mass index, smoking, cholesterol, triglyceride) were measured at wave 4 (considered here as the baseline). Self-reported weekly moderate/vigorous PA (vs no weekly moderate/vigorous PA) was examined at a four-year follow-up (wave 6, 2012/13). Depressive symptoms were assessed at baseline and six years later (wave 7, 2014/15) using the 8-item version of the Centre for Epidemiological Studies Depression Scale (CES-D). Binary mediation analysis was used to investigate whether PA mediated the relationship between systemic inflammation and depressive symptoms, adjusting for the full set of covariates.

Results No significant associations were found between elevated levels of CRP and subsequent depressive symptoms (Odds Ratio (OR)=1.28 (95% Confidence Intervals (CI)) 0.98–1.68). Participants with high CRP were significantly more likely to be physically inactive (OR=1.29 (95% CI) 1.07 to 1.56). Physical inactivity was associated with greater