

did not significantly improve depression (SMD=-0.23 [95%CI-0.59,0.13], p-value=0.21), distress (SMD=0.00 [95%CI-0.15,0.16], p-value=0.96) or wellbeing (SMD=0.00 [95%CI-0.01,0.02], p-value=0.50) (no data for anxiety). Trials' risk of bias is generally high.

Conclusion Preliminary results suggest that implementing MBPs for non-clinical populations improve wellbeing; other effects depend on contextual factors to be explored further. We found evidence of MBPs' specific effects on depression only, and no indication of MBPs' superiority to similar interventions. Low trial quality limits evidence strength.

Thursday 10 September

Tobacco: Behaviours

OP63

'I DON'T DO IT IN FRONT OF THE CHILDREN; IT'S THE WORST KEPT SECRET IN THE FAMILY': SECONDARY QUALITATIVE ANALYSIS OF ELECTRONIC CIGARETTE USERS' VIEWS AND REPORTED EXPERIENCES OF VAPING AROUND CHILDREN

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Background There is widespread concern about youth uptake of electronic cigarettes. Regulation and education campaigns exist which aim to protect children from initiating use, yet it is likely that children will be primarily influenced by the vaping/smoking behaviour of people in their immediate environment. This is the first known study exploring e-cigarette users' views and reported experiences of vaping around children.

Methods Following informed consent, semi-structured qualitative interviews with adults recruited from England, who had attempted to give up smoking by vaping, were conducted as part of a wider study into e-cigarette use trajectories and smoking relapse (Ectra study). Data relating to vaping around children were extracted from 28 interviews and thematically analysed taking a secondary data analysis approach.

Results Analysis indicated that vaping behaviour in the presence of children in public appeared to be governed by replicating smoking norms, whilst vaping in the home appeared to be determined by caregivers' need to reconcile vaping behaviour so that it was congruent with parental identity as responsible caregiver. Participant perspectives reflected existing diametrically opposed moral discourses applied to e-cigarette use of 'harm reduction for smokers' and 'potential for youth harm'.

Conclusion Vaping is being role modelled within the community and home, despite attempts to hide the behaviour by many e-cigarette users. The ambivalent contextualisation of e-cigarettes means that e-cigarette users may lack a clear narrative to draw on when discussing vaping with children. Public Health guidance for vaping around children, including discussing vaping in the context of smoking cessation, could be helpful.

OP64

CHANGE IN MATERNAL SMOKING BEHAVIOUR BETWEEN TWO PREGNANCIES AND SMALL FOR GESTATIONAL AGE BIRTH: ANALYSIS OF A UK POPULATION-BASED COHORT

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Background Maternal smoking during pregnancy is linked to small for gestational age (SGA) birth (< 10th percentile). We examined inter-pregnancy changes in maternal smoking and the odds of SGA in the second child.

Methods A population-based cohort of prospectively collected anonymised antenatal and birth healthcare data (2003–2018) recorded by University Hospital Southampton, Hampshire, UK (SLOPE study) was used. The first two singleton pregnancies resulting in live births were analysed (n=15,525 women) using logistic regression to examine changes in self-reported maternal smoking in relation to whether the second child was SGA. We adjusted for maternal age, ethnicity, body mass index, educational attainment, employment status, partnership status, folate supplementation, infertility treatment, gestational diabetes and gestational hypertension at the first pregnancy (P1), length of the interpregnancy interval and previous SGA birth.

Results SGA occurred in 15.7% of all pregnancy 2 (P2) births in mothers smoking at both pregnancies, compared to 5.7% in never-smokers (reference group). Smoking at the start of both pregnancies was associated with higher odds of 2nd child SGA (adjusted Odds Ratio (aOR) 2.88 [95% CI 2.32, 3.56]). The aOR of 2nd child SGA were also higher in women who smoked only at the start of either P2 (2.02 [1.41, 2.89]) or P1 (1.52 [1.10, 2.09]). The aOR of 2nd child SGA were similar to never-smokers in those who quit when each pregnancy was confirmed (1.23 [0.81, 1.85]), smoked between pregnancies but quit up to P2 confirmation (0.82 [0.59, 1.15]), or quit by P1 confirmation and maintained cessation (0.91 [0.74, 1.11]). The odds of SGA birth for women with no previous SGA followed a similar pattern. Among women whose 1st baby was SGA (n=1,903), the aOR of recurrent SGA were higher in those smoking at the start of both pregnancies (2.62 [1.84, 3.72]), or at P2 only (1.82 [1.00, 3.30]). However, those who were P1 smokers and stopped by P2 were not more likely to have recurrent SGA (aOR 1.08 [0.62, 1.88]).

Conclusion Mothers who smoked at the start of either one or both of their first two pregnancies had increased odds of SGA birth compared to never-smokers. However, the odds of recurrent SGA with smoking in the first pregnancy and quitting at any point up to confirmation of the second pregnancy were similar to never-smokers. The time between pregnancies is an opportunity to intervene on modifiable risk factors such as smoking, particularly in those with previous history of SGA babies.

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Contributors NAA conceived the study idea and is PI of the SLOPE (Studying Lifecourse Obesity PrEdictors) study. NZ cleaned and managed the raw data. EJT analysed the data. EJT drafted the abstract. All authors contributed to the study design, interpreted the results, revised the abstract for content and approved the final version before submission.

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OP65

PREDICTION MODELS FOR POPULATION TOBACCO USE: A SYSTEMATIC METHODOLOGICAL REVIEW TO IDENTIFY BEST MODELLING STRATEGIES

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Background Smoking remains a top public health priority, killing over 6m people annually. Planning future tobacco control policies can greatly benefit from population prediction models for tobacco use (mathematical models that simulate tobacco exposure and its health impact in the population). Those models were mainly developed to project trends and simulate policy as identified in a systematic review published in 2013. Common outcomes were changes in tobacco use behaviour, tobacco-related morbidity/mortality, and economic impact. We updated, expanded and enhanced the 2013 review. We aimed to identify best modelling practices, highlight common pitfalls, and develop a quality-assessment checklist.

Methods We systematically searched PubMed, Embase, CINAHL Plus, EconLit, and PsycINFO for publications between July 2013 and August 2019 using the search strategy of the 2013 review. We included studies referring to tobacco product or tobacco use and projected a tobacco-related outcome. We only included studies in English. Two reviewers independently assessed the eligibility of the identified studies through title and abstract screening followed by full-text review; all discrepancies were resolved in consensus with a third reviewer. We designed and piloted a data-extraction form based on existing guidelines to collect information such as model structure, data sources and transparency. We analysed the evidence using narrative synthesis. We developed a quality-assessment checklist for population prediction tobacco models, including the risk of bias and standard quality criteria.

Results In total, 5046 records were identified of which 830 were duplicates; 80 papers were included in this review. A diverse range of modelling/simulation methodologies, including microsimulations, decision-trees, and agent-based models have been used in population tobacco use prediction modelling. However, methodological transparency was notably lacking. Furthermore, the tobacco modelling community apparently works mostly in 'silos', hindering the diffusion of good modelling practice, and promoting wasteful repetition of effort. For example, while some models appropriately simulate smoking intensity and duration to model cumulative hazard, others only simulate smoking status (i.e. never/ever/current).

Conversely, the modelling teams participating in the Cancer Intervention and Surveillance Modelling Network (CISNET)

collaborated well, sharing data, methodological advancements and 'building blocks' for their models.

Worryingly, some tobacco models received industry funding, making bias likely.

Conclusion Population prediction modelling for tobacco use is an active area of research. However, our systematic methodological review identified variable quality and an overall lack of transparency. More active collaboration using transparent methods and open-source code could avoid wasteful duplication of effort, speed scientific progress and benefit both the tobacco control community and wider society.

OP66

OPINIONS AND EXPERIENCES OF A NATIONAL SMOKEFREE PRISON POLICY: EVIDENCE FROM THE TOBACCO IN PRISONS STUDY

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Background A national smokefree prison policy was implemented in Scotland from November 2018. The removal of tobacco from a prison system poses some distinct potential challenges, not least because prisons are 'homes' and rates of smoking in the prison population are very high. The Tobacco In Prisons study (TIPs) is internationally unique in comprehensively studying the introduction of restrictions on smoking in Scottish prisons, using data collected before, during and after the change to prison smoking policy. This paper presents opinions and experiences of prison smoking restrictions among people in custody (prisoners) and staff in Scotland, and identifies implementation success factors and lessons that are highly relevant for other jurisdictions and areas of public health.

Methods Surveys of staff (online) and people in custody (paper-based) were conducted in November-December 2016 (return rates: 26.6% (staff); 33.8% (people in custody)); May-July 2018 (31.4%; 25.9%) May-July 2019 (16.1%; 18.1%). The surveys contained identical or similar questions on topics related to smoking, smoking cessation/abstinence and smoking restrictions in the prison context. Topics were also explored qualitatively with staff and people in custody at similar time points to the surveys via 34 focus groups and 99 interviews in total. Changes in survey responses over time were analysed using descriptive statistics and logistic regression analyses, adjusting for potentially confounding socio-demographic variables. Qualitative data were thematically analysed to identify the diversity of views and experiences.

Results The new smokefree policy is widely accepted as the new 'norm' in Scottish prisons, although support was consistently higher among staff than people in custody before, during and after implementation. Both the surveys and qualitative work suggest that perceptions of some of the potential difficulties ('hard to enforce') and negative consequences ('cause a lot of trouble') of a smokefree prison policy reduced post implementation. Participants identified several implementation success factors relating to: planning and communication, smoking abstinence/cessation products/services, and partnership working.

Conclusion Our study confirms that smokefree prison policies can be successfully implemented, despite widespread