

independent researchers assessed titles and abstracts, extracted data and assessed risk of bias in the included studies, following the PRISMA guidance. Review inclusion criteria were: a) health education intervention, studies conducted in schools in high-income countries that included a control group b) participants aged 10–19 years, c) studies reporting BMI/BMI Z-score at baseline and follow-up. A meta-analysis was conducted combining findings of studies presenting data on BMI z-score ($n=13$). Heterogeneity was assessed using Cochran's Q and the percentage of variability due to heterogeneity was quantified using I^2 .

Results Searches identified 29,174 publications, of which 312 studies papers were selected as potentially meeting inclusion criteria. Twenty-five studies met the inclusion criteria. Most ($n=18$) were delivered by teachers in classroom settings, followed by researchers, schools nurses and students. Additional methods used in the interventions included out of class components, physical activity sessions, digital interventions and parent involvement. Eleven of the included studies were effective in improving BMI or BMI Z-score at follow-up periods from two months to two years post-intervention. Intervention features associated with effectiveness were the provision of training for teachers prior to intervention, and involvement of parents or families. Data from 13 of the 25 studies were included in a meta-analysis, using a random effects model given the high level of heterogeneity ($I^2=65.1\%$). The overall pooled estimate of change in BMI Z-score in the intervention group, compared with the control group, demonstrated that BMI improved in adolescents exposed to the intervention [$\beta=-0.10$, 95% CI (-0.14, -0.05); $p<0.001$].

Conclusion This systematic review demonstrates that school-based educational interventions have the potential to prevent obesity in adolescence. Mediating factors associated with effectiveness included providing training for teachers prior to the intervention and involving parents or families.

Health inequalities

RF25

EFFECTS OF HOUSING FIRST APPROACHES ON HEALTH AND WELLBEING OF ADULTS WHO ARE HOMELESS OR AT RISK OF HOMELESSNESS: SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

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Background Access to housing is an important determinant of health, with homeless people having substantially increased morbidity and mortality compared to the housed population. Conventional 'Treatment First' (TF) models for tackling homelessness provide temporary accommodation conditional on adherence to services to address health needs, particularly substance use. A new policy approach aiming to end homelessness across Europe and North America, the 'Housing First' (HF) model, provides rapid housing, not conditional on abstinence from substance use. This has been noted by other reviewers as improving housing stability, but at the potential cost of removing incentives to use health services and abstain from harmful substances. Conversely, increased housing stability may lead to health improvements. We aimed to

systematically review the evidence from randomised controlled trials to evaluate the effects of HF on health and well-being.

Method We searched seven databases for randomised controlled trials of interventions providing rapid access to non-abstinence-contingent, permanent housing. We extracted data for the following primary outcomes: mental health; self-reported health and quality of life; substance use; non-routine use of healthcare services. Data recording housing stability was extracted as a secondary outcome. We assessed risk of bias and calculated standardised effect sizes.

Results We included four studies, all with 'high' risk of bias. The impact of HF on most short-term health outcomes was imprecisely estimated, with varying effect directions. No clear difference in substance use was seen. Intervention groups experienced fewer emergency department visits (incidence rate ratio (IRR)=0.63; 95% CI 0.48 to 0.82), fewer hospitalisations (IRR=0.76; 95% CI 0.70 to 0.83) and less time spent hospitalised (standardised mean difference (SMD)=-0.14; 95% CI -0.41 to 0.14) than control groups. In all studies intervention participants spent more days housed (SMD=1.24; 95% CI 0.86 to 1.62) and were more likely to be housed at 18–24 months (risk ratio=2.46; 95% CI 1.58 to 3.84).

Conclusion HF approaches successfully improve housing stability and may improve some aspects of health. Implementation of HF would likely reduce homelessness and non-routine health service use without an increase in problematic substance use. Impacts on long-term health outcomes require further investigation.

RF26

QUANTIFYING INEQUALITIES IN LOOKED AFTER CHILDREN IN ENGLAND

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Background The proportion of Looked After Children (LAC) in England is rising. The high burden and consequences of child maltreatment are well documented, yet little is known about the drivers of children being taken into care in England. In order to inform policy, this analysis aimed to determine whether there were inequalities in the sustained rise in LAC in recent years.

Methods We analysed routinely available local authority level data from 152 English upper tier local authorities between 2003–4 and 2017–18. The principal outcome was the rate of children taken into care each year. Numbers of LAC were drawn from the 'children looked after data return', submitted by local authorities to the Department of Education annually. Child population data were sourced from Office of National Statistics mid-year population estimates. Local authorities were assigned to quintiles according to their income deprivation score based on 2015 Indices of Multiple Deprivation, the main exposure of interest. Trends were analysed descriptively. Longitudinal mixed effects models were used to assess changes in social inequalities in LAC over time. Analyses were performed in R version 3.5.2.

Results There was a 29.8% increase in children taken into care between 2008 and 2018 in England, which was not experienced evenly across the population. In 2008 the absolute inequalities gap between most and least deprived areas was 143 children per 100,000 (95% CI 108 to 179). Between

2008 and 2018, the greatest increase in risk of becoming looked after occurred in the most deprived local authorities, with the gap widening by 6 children per 100,000, per year (95% CI 3 to 8). Ongoing analyses will determine how rising inequalities were distributed across age groups and children's category of need upon entering care. Fixed effects models will be used to assess the relationship between changes in determinants of children entering care, such as child poverty and expenditure on preventative services, and changes in risk of becoming looked after.

Conclusion This study provides evidence that the dramatic rise in children taken into care has been greater in the poorest areas of the country. Policies that address the determinants of children entering care at local area level are important for tackling the inequalities picture, and the rise in LAC. A limitation of this analysis relates to the use of 2015 income deprivation scores, which may not accurately reflect the relative status of local authorities across all years.

RF27 RISK FACTORS FOR INTIMATE PARTNER VIOLENCE IN ASYLUM SEEKING AND REFUGEE POPULATIONS: A SYSTEMATIC REVIEW

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Background Intimate partner violence (IPV) is a pressing public health concern with well-documented evidence of adverse health consequences including mortality, physical, psychological and sexual harm. The specific experience of the asylum seeking and refugee populations includes exposure to pre-migration, migration and post-migration risk factors for adverse events. This migration history, along with factors such as differences in cultural values and norms may make these populations especially vulnerable to IPV. The aim and objective of this review was to identify risk factors for IPV in the asylum seeking and refugee populations by synthesising and critiquing the literature on this topic.

Methods We identified 7,219 records by searching the PubMed, Web of Science, SCOPUS, Global Health, Embase, PsycINFO, Westlaw and SSRN electronic databases. We searched grey literature databases, agency websites and repositories. We critically appraised and extracted data using the JBI SUMARI tool. We ranked evidence quality using the GRADE approach. Meta-analysis was not possible due to heterogeneity. We took a framework analysis approach to narrative synthesis i.e. familiarisation, identifying a thematic framework, indexing, charting, mapping and interpretation. We considered any risk factor as the exposure and IPV as the outcome. We separated asylum seekers and refugees for subgroup analysis. We registered the review with PROSPERO and adhered to the PRISMA reporting criteria.

Results This review is ongoing. Searching resulted in 7,220 records. There were 4,693 records after we removed duplicates. We screened 4,693 titles and abstracts, selecting 52 studies for full-text assessment against explicit eligibility criteria. We excluded 28 studies with reasons for exclusion. We included 24 studies in the analysis. Twenty studies had a cross-sectional design, three were prevalence studies and one a cohort study. Political violence, conflict victimization, attitudes to IPV, previous experience of IPV and education emerged as

categories of risk factors that may be associated with IPV. 96% of studies had a cross-sectional design, therefore temporality and direction of associations were difficult to determine.

Discussion There is a large gap in research and policy-relevant evidence in this area. This review is important because it may be the first systematic review on this particular topic. The challenges for this study include inconsistent terminology, absent definitions, validity and reliability of measures of risk factors and IPV, self-report of IPV. This review may have implications for policy on safeguarding residents in reception centres and camps, screening for and reporting of IPV in clinical practice and future research.

RF28 AREA- AND INDIVIDUAL-BASED MEASURES OF SOCIOECONOMIC CIRCUMSTANCES AND ADHD PRESCRIPTION UPTAKE AMONG YOUNG CHILDREN IN SCOTLAND: A POPULATION-BASED REGISTER STUDY

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Background Attention-deficit hyperactivity disorder (ADHD) in childhood can have adverse effects on mental health, learning, and employment opportunities. There is evidence of a relationship between socioeconomic disadvantage and likelihood of ADHD in childhood; however, most studies use area-level measures which may underestimate inequality compared to individual/family-based measures. This study aimed assess whether area-level and individual-level measures of social disadvantage were predictive of child ADHD via dispensed prescriptions.

Methods We used birth data for all children born in Scotland 2010–2012 (n=195,419) linked to Prescription Information System up to March 2018. Two measures of socioeconomic circumstances (SECs) at the child's birth were used: Scottish Index of Multiple Deprivation (SIMD) (area-based), and four class measure of the NS-SEC of the mother (individual-based). Prescription use was defined as a record of any dispensed prescription for ADHD up until March 2018 (median age 6). We used binary logistic regression to estimate risk ratios (RRs) for prescription uptake by each SEC measure before and after adjusting for covariates/confounders (sex, age of child as of March 2018, number of births in pregnancy, mother's age at first live birth, mother's birth country, relationship status of parents).

Results Prescription use varied by area deprivation (0.58% of children born in the most deprived SIMD decile compared to 0.14% in the least deprived) and social class (0.62% for children born to mothers in the unemployed/other social class compared to 0.16% in the managerial/professional social class). The strength of association narrowed slightly after adjustment for confounders/covariates; the fully adjusted RR for prescription use was 2.14 (95% C.I.: 1.33–3.44) in the most compared to least deprived SIMD decile and 2.32 (95% C.I.: 1.78–3.04) for children born to mothers who were unemployed/other compared to managerial/professional. After mutual adjustment for both SEC measures, the effect of SIMD was reduced whilst that of mother's social class remained consistent.

Conclusion Both area-level and family-level deprivation at birth are associated with increased prescription use among