odds of subsequent depressive symptoms (OR=2.17 (95% CI) 1.65–2.84). Mediation analyses revealed that physical inactivity mediated the relationship between high CRP and depressive symptoms, explaining a total of 47.79% of this association.

Conclusion In this nationally representative sample, we found that physical inactivity is a partial mediator of the relationship between high CRP and subsequent depressive symptoms. Interventions targeting physical inactivity may be effective in ameliorating inflammation-associated depressive symptoms.

OP62 A POPULATION BASED STUDY: ASSESSING MALE SUICIDE TRENDS AND INEQUALITIES IN SCOTLAND 1980–2015

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Background Male suicide rates increased remarkably in Scotland in the 1980s and 1990s, with higher rates in more deprived areas. We examine trends in male suicide in Scotland from 1980 to 2015 by method of suicide and individual socioeconomic position. We also explore trends in inequalities by individual socioeconomic position and the extent to which this may be attributable to suicide method.

Methods Suicide deaths for 1980–2015 were obtained from National Records Scotland. Inequalities were assessed using National Statistics socio-economic classification (NS-SEC) for ages 20–59 in 2000–2002 and 2010–2012. Standardised death rates were calculated by age with European population 2013 as reference, and Poisson regression was used to assess trend significance. Inequalities were assessed using Slope of Index of Inequality (SII).

Results There were 12 281 suicide deaths between 1980 and 2015. No significant linear trend was observed over time for all ages, but suicide rates per 1 00 000 person-years increased from 21 to 27 between 1980 and 2002 ($p<0.001$), and decreased from 27 to 20 from 2002 to 2015 ($p<0.001$). No significant trend was observed for poisoning, but suicide rate by hanging, suffocation and strangulation increased over time ($p<0.001$), and decreased for other suicide ($p<0.001$). There were significant differences in suicide rates between the NS-SEC groups, and by suicide method (p-values<0.001). SII: 85 (95% CI, 77 to 92) in 2000–01 and 62 (95% CI, 55 to 68) in 2010–12 per 100 000 person-years, indicated that inequalities between social class extremes were significantly higher in 2000–02 than 2010–12. Suicide by hanging, suffocation and strangulation accounted for 44% of inequalitiesin 2000–02 (SII=37 (95% CI, 33 to 42)) and 49% in 2010–2012 (SII=30 (95% CI, 25 to 34)).

Conclusion The decline in male suicide rates may be attributed to suicide prevention strategies introduced by the Scottish Government from 2002 such as Choose Life. Despite decreasing trends of male suicide, suicide by hanging, suffocation, and strangulation increased over time. Inequalities by individual deprivation decreased between 2000–02 and 2010–12. Limitations are that NS-SEC categories, never worked and long term unemployed and not classified, were excluded from the analysis assessing inequalities since the interpretation of results for this group was ambiguous. What effect this omission would have on the estimation of inequalities is unclear. Caution should be taken when comparing inequalities by NS-SEC 2001 and 2011 as in 2011 NS-SEC category was estimated for those without occupation. Policy should be directed at reducing deaths from hanging, suffocation, and strangulation.

OP63 LONELINESS, LIVING ARRANGEMENTS AND EMOTIONAL SUPPORT AS PREDICTORS OF SUICIDALITY: A 7 YEAR FOLLOW-UP OF THE UK BIOBANK COHORT

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Background Between 1997 and 2017 the number of middle-aged people living alone in the UK increased by 53% and loneliness is now recognised as an important policy area. We aimed to understand the interrelationships between loneliness, living arrangements and emotional support in predicting suicidal thoughts and behaviours.

Methods Between 2006 and 2010 sociodemographic and health data were collected from 5 00 000 participants, aged 40–69, in UK Biobank. These data were linked to hospital admission records for self-harm and suicidal ideation until March 2015, and records for death by suicide until February 2016. Additionally, in 2016–2017, 1 50 000 participants completed an online questionnaire which probed thoughts of self-harm, self-harm behaviour and attempted suicide. Exposures assessed were baseline measures of self-reported loneliness, living arrangements and emotional support (frequency of confiding). Deaths by suicide and hospital admissions were investigated with Cox proportional hazards models and logistic regression was used for self-report outcomes. Analyses were adjusted for socio-demographic factors including deprivation and employment, and multimorbidity.

Results In adjusted analyses loneliness was the risk most consistently related to all outcomes including death by suicide, (hazard ratio (HR) 1.75, 95% CI 1.22 to 2.51), hospital admissions (HR 4.41, 95% CI 2.50 to 7.76) and self-reported suicide attempts (HR 5.38, 95% CI 3.35 to 8.63). After adjustment, not living with a partner was associated with increased risks of hospital admissions and dying by suicide, but not with the self-report measures of suicidality. Not living with a partner had a stronger relationship with death by suicide for men (HR 2.08, 95% CI 1.36 to 3.18) than for women (HR 1.16, 95% CI 0.59 to 2.31). After adjustment, emotional support was associated with the self-report but not administrative measures of suicidality. For example, when people with the least emotional support were compared to those with the most, the odds ratio was 3.00 (95% CI 1.71 to 5.28). Statistical interactions indicated that people who were lonely despite living with a partner had the highest risk of contemplating self-harm and that loneliness eliminated the protective effects of living with a partner for deaths by suicide.

Conclusion Loneliness was the strongest predictor of suicide risk irrespective of living arrangements and emotional support and loneliness explained the relationships between living

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arrangements and self-reported suicidality but not suicidality as indicated by administrative records. A limitation is that selective participation may bias the results for self-reported suicidality; however, the large sample size enabled participants to be followed up using death records, which are less vulnerable to bias.

OP64 IMPACT OF POVERTY TRAJECTORIES ON CHILDREN'S HEALTH AND MATERNAL MENTAL HEALTH: EVIDENCE FROM THE UK MILLENNIUM COHORT STUDY

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Background The number of children living in poverty in the United Kingdom (UK) is rising. Child poverty has been shown to cause poor mental and physical health outcomes that last into adulthood. Poverty also puts families in distress. The aim of the study was to understand the prevalence of different poverty trajectories for UK children, and their associations with multiple child health and maternal mental health outcomes.

Methods We analysed data on 11 565 children who participated in sweeps of the UK Millennium Cohort Study from ages 9 months to 14 years. Outcomes were: (i) mental health at age 14, measured by the Strengths and Difficulties Questionnaire (SDQ); (ii) physical health at age 14, measured by overweight/obese and any longstanding illness; and (iii) maternal mental health, measured by Kessler 6 scale. The main exposure of interest was relative poverty (less than 60% of median of equivalised household income). Poverty trajectories measured at 9 months, 3, 5, 7, 11 and 14 years were characterised using latent class analysis. Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated using multivariable logistic regression models, adjusted for child sex, maternal education and maternal ethnicity.

Results Four poverty trajectories were identified: class 1 (61.2% of children) (stable never-poor, reference group), class 2 (14.2%) (poverty in early childhood), class 3 (5.2%) (poverty in late childhood) and class 4 (19.4%) (persistent poverty). Any exposure to poverty was associated with increased risk of longstanding illness, and worse mental health outcomes for both mothers and children, with the largest effects for persistent poverty. Compared with children who were never poor, those from persistently poor households were at a higher risk of having mental health problems [SDQ score $\geq$17 (aOR: 2.76; 95% CI 2.29 to 3.34)], physical health problems [being overweight/obese (aOR: 1.23; 95% CI 1.07 to 1.41); longstanding illness (aOR: 1.82, 95% CI 1.55 to 2.15)] and mothers under psychological distress [Kessler 6 scale score $\geq$6 (aOR: 2.60; 95% CI 2.26 to 3.00)].

Conclusion Persistent poverty affects one in five UK children and is associated with negative impacts on child and maternal health, particularly mental health. Any exposures to poverty mainly in early or late childhood were also associated with worse outcomes. One of the limitations of this study is that household income was self-reported. Policies that reduce child poverty and its consequences are likely to improve health across the life course.

OP65 MENTAL HEALTH COMPETENCE AT AGE 11 AND ITS ASSOCIATION WITH RISK-TAKING HEALTH BEHAVIOURS AT AGE 14: FINDINGS FROM THE UK MILLENNIUM COHORT STUDY

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Background Risk-taking health behaviours initiated during adolescence can track into adulthood and influence lifelong health and social outcomes. Promoting positive mental health, particularly through enhancing competencies (such as pro-social skills), may help prevent the development of risk-taking behaviours and thus support future health. We investigated the relationship between skills-based components of positive mental health in childhood (Mental Health Competence, MHC) and teenage risk-taking behaviours, using data from a UK-representative population cohort, the Millennium Cohort Study (~18 000 children born 2000–2002).

Methods Cohort members (CMs) reported on a number of common risk-taking behaviours at 14 years(y), categorised as follows: ever tried cigarettes (yes/no), ever tried e-cigarettes (yes/no), alcohol consumption (never tried, tried binge-drinking [5+alcoholic drinks at a time], tried but never binge-drinking), ever tried illegal drugs (yes/no), ever engaged in antisocial behaviour (yes/no, any of: theft, graffiti, public property damage, carrying a weapon, using a weapon, breaking and entering), and sexual contact with another young person (yes/no). A four-class latent measure of MHC summarised learning skills and prosocial behaviours at 11 y (maternal report): High, High-Moderate, Moderate, Low. We used logistic regression to estimate odds ratios (OR) for binary outcomes and multinomial regression to estimate relative risk ratios (RRR) for categorical outcomes, adjusting for confounding by socio-demographic characteristics, maternal mental health and alcohol consumption, parenting at 3 y, and puberty reported at 11 y. Sample design and attrition were accounted for with weights and item missingness with multiple imputation.

Results 17% of CMs had ever tried smoking cigarettes and 18% had ever tried e-cigarettes. 49% of CMs had consumed alcohol, including 11% binge-drinking. Trying illegal drugs, displaying anti-social behaviours and having sexual contact were less prevalent (6%–10%). Compared to CMs with High MHC, those with Low, Moderate, or High-Moderate MHC at age 11 were more likely to have taken part in risk-taking behaviours. After adjustment for potential confounding, elevated risks remained for Low MHC in relation to binge drinking (RRR: 1.6 [95% CI 1.1 to 2.3]), having tried smoking cigarettes (OR: 2.1 [1.5–2.9]), e-cigarettes (OR: 1.4 [1.0–2.0], illegal drugs (OR: 1.9 [1.3–2.9]), and anti-social behaviour (OR: 1.8 [1.2–2.6]) but not sexual contact (OR: 1.1 [0.7–1.6]).

Conclusion MHC at the end of childhood was associated with risk-taking behaviours in mid-adolescence in a representative UK cohort. Interventions that improve MHC skills in childhood may help reduce risk-taking behaviours at this crucial stage in the lifecourse, improving wellbeing in adolescence and into adulthood.

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