

reduced in those with depressive symptoms at one or other period only.

**Conclusion** Women who suffer from depressive symptoms both before and after pregnancy appear vulnerable to poorer relationships with their children. This emphasises the importance of maternal mental health for the mother and for her relationship with her child.

OP90

# THE EMBODIMENT OF GENDER DIVISIONS OF LABOUR: GENDER DIVISIONS OF LABOUR AND INFLAMMATORY MARKERS IN THE UK HOUSEHOLD LONGITUDINAL STUDY

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10.1136/jech-2017-SSMAbstracts.89

**Background** While the gender division in paid work has progressively diminished, this is less true of unpaid labour. A gender perspective requires an extension of investigations of stress and health beyond paid work to include unpaid labour. This study investigates associations between gender divisions of 'total labour' and inflammatory markers thought to potentially link chronic stress exposure with disease outcomes amongst contemporary UK couples.

**Methods** The study sample includes co-resident, opposite sex couples aged 16–65 in Wave 2 of the UK Household Longitudinal Study or Understanding Society. Gender divisions of labour were measured using the number of weekly hours that each member of the couple spent in paid work, housework, and caring, as well as who has responsibility for children. Inflammatory marker outcomes included C-Reactive Protein (CRP) and fibrinogen. High CRP was defined as greater than 3 mg/L. Cross-sectional multivariate regression models were used to investigate associations between gender divisions in paid work, caring, housework and childcare with inflammatory markers, adjusting for household income, educational qualifications, longstanding illness and age, stratifying by gender to investigate whether associations are differential within couples.

**Results** Gender divisions of labour were associated with raised inflammation for men but not women. Men living in households in which women were providing care to an adult or doing all of the housework had significantly higher levels of Fibrinogen (caring: coef=0.11, 95% CI=0.04–0.19; housework: 0.08, 0.02–0.14) and CRP (caring: OR=1.66, 95% CI=1.15–2.39; housework: OR=1.50, 1.06–2.14) compared with men in households in which neither partner provided care or both did few hours of housework. In addition, men in traditional 'male breadwinner' households, or childless households, were significantly less likely to have raised CRP levels (paid work: OR=0.49, 0.36–0.68; parental status: 0.64, 0.44–0.92) than men in dual-earner households or those in which childcare was equally shared between parents.

**Conclusion** Contrary to expectations, inflammatory markers were significantly associated with gender divisions of labour within couples for men and not for women. While potential stress-reducing benefits of participation in paid work and childlessness are aligned with prior research, further investigation is required to better understand the effects of women's caring and housework on men's inflammation. Next steps

include investigation of the identity of care recipients, non-linear associations with hours spent in housework, and interaction effects between labour types.

OP91

# INFORMAL CAREGIVING AND MARKERS OF ADIPOSITY IN THE UK HOUSEHOLD LONGITUDINAL STUDY

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Note: Presentation moved to health inequalities 2 session on wednesday

10.1136/jech-2017-SSMAbstracts.90

**Background** Providing informal care is known to be associated with poorer psychological health. However less is known about other, more objective health outcomes such as adiposity. The aim of this study was to investigate associations between being an informal caregiver with measures of adiposity using a large, representative UK longitudinal study.

**Methods** Data on 20 669 participants of the UK Household Longitudinal Study were used to explore the relationship between caregiving and adiposity (body mass index (BMI) and waist circumference). We additionally investigated caregiving intensity (hours spent caregiving per week, number of people cared for and combining caregiving with paid work). Multiple imputation was used to account for missing data. Associations between caregiving and adiposity measures were tested using multivariable linear regressions. Analyses were stratified by gender and interactions with age were tested. Models adjusted for household income, educational attainment, social class, presence of a long-standing limiting illness, number of dependent children in the household and partnership status. All analyses included survey weights to account for design, unequal probabilities of selection, differential non-response and potential sampling errors. The analyses were conducted in Stata v14.

**Results** Being an informal caregiver was associated with increased waist circumference (1.48 cm, 95% CI: 0.42, 2.53) but not BMI for men in age-adjusted models. Women who were informal carers had higher waist circumferences (3.62 cm, 95% CI: 2.77, 4.47) and BMIs (1.26, 95% CI: 0.89, 1.64) relative to non-carers. A caring-age interaction was present for women suggesting that younger women carers (aged 16–44) had particularly higher waist circumferences (5.44 cm, 95% CI: 3.77, 7.10) and BMIs (1.90 cm, 95% CI: 1.17, 2.62). Caregiving intensity was found to be important with increasing hours of caregiving associated with increasing adiposity.

**Discussion** Being an informal carer was associated with increased adiposity amongst UK men and women. Caring appears to be particularly negatively associated with adiposity when occurring during non-normative life stages, such as early adulthood, and when high intensity. These findings are based on nationally representative longitudinal data. The main limitation of this study was the inability to investigate the reasons the care recipient requires care (i.e. dementia vs cancer), and to investigate the mechanisms involved. Given funding cuts for social care, advancements in medical treatment and increasing life expectancy, a greater proportion of the population will be expected to provide informal care for relatives

and friends. The poorer health of carers should therefore be a priority for UK public health.

OP92

# A SYSTEMATIC REVIEW OF PROSPECTIVE RISK AND PROTECTIVE FACTORS FOR INTIMATE PARTNER VIOLENCE VICTIMISATION AMONG WOMEN

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10.1136/jech-2017-SSMAbstracts.91

**Background** Rates of intimate partner violence (IPV) against women are unacceptably high worldwide. There has been no systematic review in over 10 years of all risk and protective factors without location or peer-review restrictions. Resultantly, there is no recent, systematically-developed model of the causes of IPV at all levels (individual, relationship, community, and structural) that accounts for differences, similarities, and evidence-gaps across low- to high-income contexts. This remains a barrier to the effective prevention of IPV, with significant uncertainty over what works and within which contexts. We aimed to systematically review all prospective, longitudinal risk and protective factors of IPV victimisation among women.

**Methods** Systematic searches were conducted in 16 databases and references of relevant studies were hand-searched. Published or unpublished studies in English that prospectively analysed the association between any risk or protective factor(s) and self-reported IPV victimisation among women, controlling for at least one other variable, were included. Study quality was assessed using the Cambridge Quality Checklists. Study screening, extraction, and quality appraisal were completed and checked by three independent reviewers. Results were graphically synthesised using harvest plots, which allow for the synthesis of heterogeneous evidence and identification of trends towards negative, null, or positive associations.

**Results** Searches retrieved 10 444 unique results. After title and abstract review, 387 studies were screened by full-text. Sixty studies from 35 cohorts met inclusion criteria. Most studies were from the USA (80.0%). A total of 71 risk/protective factors were identified, mostly at the individual- (n=21) or relationship-level (n=25) rather than the community- (n=7) or structural-level (n=18). Variables that showed positive or a mix of null-positive associations with women's IPV victimisation were: at the individual-level, women's identification as non-white, younger age, alcohol use, depressive symptoms, antisocial behaviour, aggressive personality, and experience of child abuse; at the relational-level, partners' identification as non-white, alcohol use, antisocial behaviour, low relationship satisfaction, poor parental relationship quality, and experience of low parental monitoring; and at the structural-level, partners' unemployment, women's lower education, and financial difficulties. Other variables were under-studied ( $\leq 2$  studies) or showed mixed or mainly null effects.

**Conclusion** Significant work is needed to develop an ecological model of IPV against women using prospective data. Many commonly accepted risk factors for IPV victimisation among women such as exposure to inter-parental violence and

community factors have little (if any) prospective evidence from outside the USA. Further prospective research on the aetiology of IPV against women is needed to inform rigorous prevention models.

## Food policy

OP93

# STAKEHOLDERS' FRAMING OF EVIDENCE ABOUT THE UK SUGAR-SWEETENED BEVERAGE TAX: A NEWS MEDIA ANALYSIS

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10.1136/jech-2017-SSMAbstracts.92

**Background** In politically-contested health debates, such as sugar-sweetened beverage (SSB) taxation, stakeholders seek to present evidence and arguments for or against the specific policy initiatives, based on their interests. The news media play a crucial role in shaping public opinion by selectively choosing which messages to focus on. While the literature suggests that media debates should be a key concern for those interested in understanding public health policy processes, as yet there has been only limited research in this area. This study examined how stakeholders' positions and evidence on SSB taxation were represented in the media to inform SSB advocacy strategies.

**Methods** Quantitative and qualitative content analysis of 1632 articles about sugar consumption and SSB taxation published in eleven national UK newspapers, chosen for diversity in political views and genre. We conducted a systematic search of the Nexis database to identify all articles relating to SSBs published between 1 April 2015 and 30 November 2016. A coding frame was developed. Two reviewers then coded a 10% random sample of articles to ensure consistency in the definition and application of codes. All remaining articles were coded by one reviewer. Data were analysed thematically, following the principle of constant comparison and attention to contradictory data. We used Beauchamp's theory of market justice and social justice frames to analyse stakeholders' messages on SSB taxation.

**Results** A wide range of stakeholders sought to present evidence and arguments for or against SSB taxation. Stakeholder positions were largely shaped by their vested political interests. For example, corporate stakeholders were more likely to draw upon market justice frames promoting individual-level drivers for high rates of sugar consumption and individual-level solutions such as education. Whereas, public health advocates were more likely to draw upon social justice frames promoting population-level drivers for high sugar consumption and SSB taxation as a policy-level measure.

**Conclusion** There is a complex, poorly-understood, interdependency between the framing of evidence in public policy debates, media representations of this evidence and the influencing strategies used by stakeholders. These early insights into stakeholders' framing of evidence, both scientific and non-scientific, in the case of SSB taxation could potentially inform wider debates about the media strategies of global