

this research informs prevention for the development of psychopathology across the life course.

P21 PATTERNS OF BREASTFEEDING AT 3 MONTHS POSTPARTUM IN THE ALBERTA PREGNANCY OUTCOMES AND NUTRITION (APRON) STUDY

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Background Infant feeding is often characterised in broad categories, such as exclusive breastfeeding, partial breastfeeding and formula feeding. However there is little information about detailed patterns of feeding within these groups. The purpose of this study was to examine patterns of breastfeeding from 3 day prospective feeding diaries to describe how women feed their babies.

Methods The APron study is a prospective study of women during pregnancy and their children. At 3 months postpartum women completed a prospective breastfeeding diary which collected information on the number of feeds, and duration and method of every feed over 3 days. A total of 1080 women completed the breastfeeding diaries.

Results Women reported feeding their babies using combinations of up to 4 different methods (at breast, expressed breastmilk in a bottle, formula, mixed breastmilk and formula in the same bottle) in any one day. For the ongoing analyses women were categorised into 4 groups based on the number and type of feeds reported/day: 1) at breast only (n=622), 2) at breast and expressed breastmilk (n=223), 3) mixed feeding using 2 methods (n=123) and, 4) mixed feeding using 3 or 4 methods (n=112). The proportion of total feeds at breast was 80%, 75% and 64% for the mothers in the 'at breast and expressed milk', 'mixed feeding using 2 methods' and 'mixed feeding of 3 using 4 methods' groups, respectively. In turn the average daily duration of at breast feeds was longer in women who fed at breast only compared to those in any other method group. Women who fed 'at breast and expressed milk', 'mixed feeding of 2 methods' and 'mixed feeding of 3 or 4 methods' fed, on average, for 18 min, 17 min and 27 min less at breast per day, respectively, compared to women who fed at breast only (all p=<0.01). There were no differences in the average number of daily feeds between the 4 method groups.

Women use many different combinations of methods within a day to feed their 3 month old babies. Using fewer groups to classify women ignores the 'real life' complexity of feeding patterns. Our data showed that those who used a combination of methods to feed their babies fed had a lower a frequency and total duration of feeding at breast. This could be important to understanding variation in maternal energy expenditure and infant growth, development and health in the future.

In collaboration with the ENRICH team.

P22 CHILDHOOD ADVERSITY, ADULT SOCIOECONOMIC STATUS AND RISK OF WORK DISABILITY – A PROSPECTIVE COHORT STUDY

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Background Employees' health is dependent on individual and social factors operating from across the life course. Studies have shown that negative life events during childhood or low socioeconomic status (SES) in adulthood may predict decreased labour market participation. However, the combined effects of childhood adversities and low SES in adulthood on work disability are not known.

Methods We included 34 384 employed Finnish Public Sector study participants who responded to questions about childhood adversities (none versus any adversity, e.g., parental divorce or financial difficulties) in 2008, and whose adult SES (based on occupational status) in 2008 was available. We categorised exposure into four groups: neither (reference), childhood adversity only, low SES only, or both. Participants were followed from 2009 until the first period of register-based work disability (sickness absence >9 days or disability pension) due to any cause, musculoskeletal or mental disorders; retirement; death; or end of follow-up (December 2011). We ran cox proportional hazard models adjusted for behavioural, health- and work-related covariates.

Results When compared to those with neither exposure, hazard ratio (HR) for work disability from any cause was increased among participants with childhood adversity, with low SES, and those with both exposures. Low adult SES was a stronger predictor (HR 2.38, 95% CI=2.14 to 2.64) of disability due to musculoskeletal disorders than childhood adversity (1.11, 95% CI=1.00 to 1.23). The difference between the exposures as predictors of disability due to mental disorders was smaller (adversity: 1.40, 95% CI=1.23 to 1.59; low SES: 1.21, 95% CI=1.03 to 1.42). The highest risk was observed in those with both exposures (2.53, 95% CI=2.29 to 2.79 for musculoskeletal disability).

Discussion Exposure to adversities in childhood and low SES in adulthood were associated with work disability. Exposure to both these risk factors was associated with the highest work disability risk, although this was additive rather than synergistic effect. Childhood adversity was associated with disability due to mental disorders in particular, whereas low adult SES was more strongly associated with disability due to musculoskeletal disorders.

P23 POSSIBLE IMPLICATIONS OF A PERCEIVED DIVIDE BETWEEN LAY AND OFFICIAL KNOWLEDGE IN AN AREA OF COMPROMISED AND POLLUTED ENVIRONMENT, AND HIGH DEPRIVATION, IN NORTH WEST ENGLAND

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Background Due to its topography and history, Halton, Merseyside, provides a valuable natural experiment to investigate the divide between lay and official knowledge about environment and deprivation, and how these may influence health choices and outcomes.

Methods To gain a cross-section of the local population, households in every street in each of six predefined areas received an invitation. Fifty-five semi-structured interviews were carried out to assess residents' perceptions and experiences of health, environment and lifestyle. A life history approach was taken to examine health over time, and how lifestyle choices were constructed.

Interviews were taped, transcribed, and analysed for themes using a Structuration Theory approach. Residents' viewpoints were then presented to twenty local public organisation officials, whose own perceptions were also obtained.

Results While local residents were aware of health messages, these were adopted out of personal choice, not in order to accord with perceived edicts. Residents expressed scepticism about how official knowledge was constructed, and dismay that official knowledge viewed ill-health as the result of lifestyle rather than environmental or socio-economic factors.

There was a perception that enduring deprivation was sought to be maintained in order to attract funding which would benefit officials with vested interests who lived outside the borough and could therefore afford to be unconcerned about its problems.

An illustrative quotation from a resident is: "Why kill the goose that laid the golden egg? Why get rid of poverty, deprivation and poor health when these big pots of money keep rolling in?"

Discussion Health messages, like other forms of knowledge, may be interpreted more from the presentation and perceived motivation for issuing the message than from the content of the message. Where there is a divide between lay and official knowledge, this motivation may be seen as a means of asserting power rather than either a scientifically-based or an altruistic programme of education or information.

If lifestyles are viewed by officials as the prime factor influencing an area's health profile, this view may be interpreted by lay knowledge as a means of social control meaning that the perceived root causes of socio-economic inequality need not be tackled, and that the priority of interventions is to maintain a privileged position.

P24 INDIVIDUAL FACTORS ASSOCIATED WITH SELF-REPORTED MEASURES OF COLD HOMES DURING WINTER

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Background An estimated 9000 people died during the winter 2014–2015 in England and Wales from living in a cold home. Older people are susceptible to cold, but it is unclear how to identify those who particularly find it hard to keep warm in winter. The aim of this study was to identify individual

factors associated with self-reported measures of cold homes among older people.

Methods Data were from the British Regional Heart Study (BRHS) of older men, who were aged 74–95 when completing a questionnaire in 2014. This included four self-reported measures of cold housing during the previous winter (outcomes): (i) having difficulties in meeting the heating/fuel costs; (ii) staying in bed longer in order to stay warm; (iii) turning the heating off even when cold because of worries about the costs; (iv) keeping the living room comfortably warm. Individual data, including demographic characteristics, health and lifestyle factors were also collected. Cross-sectional associations between individual factors and measures of cold housing were analysed using logistic regression models.

Results Descriptive statistics showed that (i) 327 out of 1608 (20.6%) men had difficulties in meeting the heating/fuel costs; (ii) 210 (13.3%) stayed in bed longer in order to stay warm; (iii) 157 (10.2%) turned heating off because of worries about the costs, and (iv) 54 (3.4%) could not keep comfortably warm in the living room. In full adjusted logistic models, some individual factors were independently associated with the four outcomes ($p < 0.05$): manual social class, having more financial difficulties, feeling isolated from others, and being not married. The relationship between reporting general financial difficulties and difficulties in meeting the heating/fuel costs was particularly strong (Odds Ratio [OR]=4.9, 95% Confidence Interval [CI] 3.9; 6.1). Also, men with mobility limitations were twice as likely to stay in bed longer in order to stay warm (OR=2.0, 95% CI 1.4; 2.9). Other individual factors, such as living in a house centrally heated and types of house insulation, as well as a proxy measure of the house energy efficiency (Energy Efficiency rating, aggregated from households within participants' Lower Super Output Area) were not related to self-reported measures of vulnerability to cold.

Conclusion Findings suggested that in older people financial difficulties and social class are key factors associated with cold housing in winter.

P25 FEASIBILITY CLUSTER RANDOMISED CONTROLLED TRIAL AND PROCESS EVALUATION OF AN ENVIRONMENTAL INTERVENTION IN NURSERIES AND A WEB-BASED HOME INTERVENTION TO INCREASE PHYSICAL ACTIVITY, ORAL HEALTH AND HEALTHY EATING IN CHILDREN AGED 2–4 YEARS: NAP SACC UK

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Background Systematic reviews have identified the lack of intervention studies to prevent obesity in young children. Most 3 year old children in the UK attend formal childcare, and the Government plans to extend free childcare to 30 hours per week for 3 and 4 year olds; therefore these settings present an opportunity to improve health. The Nutrition and Physical Activity Self Assessment for Childcare (NAP SACC) programme aims to improve child nutrition and