unclear. In England and Wales, 7.6% infants are born before 37 weeks gestation; this is higher (16.2%) among those of South Asian ethnicity. We examined PCHI risk by age 11 years in a prospective UK-wide cohort of children born before UNHS. We tested the hypothesis that lower gestational length is associated with higher PCHI risk after adjusting for NICU/SCBU admission and ethnicity.

Methods PCHI risk (cumulative incidence) was based on parental report of hearing impairment and associated treatment at ages nine months, three, five, seven and 11 years for 19 518 children participating in the Millennium Cohort Study. The association of PCHI (defined by provision of hearing aids/cochlear implants, persisting hearing impairment at final report, and absence of glue ear) with gestational length was investigated using multivariable discrete-time survival analysis, adjusting for NICU/SCBU admission, ethnicity and other confounding factors, and weighting for survey design (Stata: Release 14; StataCorp LP).

Results Parents reported no health problems in the first week after birth in 10 247 (52.4%), children, neonatal illness without NICU/SCBU admission in 6781 (38.0%), and NICU/SCBU admission in 1785 (9.6%). PCHI was ascertained in 44 children by age 11 years. PCHI risk was 1.0 per 1000 children (95% CI: 0.6–1.6) by age 9 months, rising by age five to 1.5 (1.0–2.2) and by age 11 to 2.1 (1.5–3.0). PCHI risk by age 11 was not associated with gestational length (hazard ratio (HR): 1.00, 95% CI: 0.98–1.03), but was associated with parental report of neonatal illness with or without NICU/SCBU admission (HR: 6.33; 2.27–17.63 and 2.62; 1.15–5.97, respectively) and Bangladeshi or Pakistani ethnicity (HR: 2.78; 1.06–7.31).

Conclusion In this cohort, born before UNHS, PCHI risk was highest in infancy. Neonatal illness, irrespective of NICU/SCBU admission, and not gestational length, increased PCHI risk by age 11 years. Further research should explore the observed increased PCHI risk in children of Bangladeshi or Pakistani ethnicity, and the relevance for UNHS of PCHI with onset or diagnosis after infancy.

ESRC-funded PhD ES/J500185/1.

P19 FATHER INVOLVEMENT AND ATTITUDES IN EARLY CHILD-REARING AND DEPRESSIVE SYMPTOMS IN THE PRE-ADOLESCENT PERIOD IN A UK BIRTH COHORT

C Opondo*, M Redshaw, M Quigley. *Nuffield Department of Population Health, University of Oxford, Oxford, UK*

10.1136/jech-2017-SSMAbstracts.121

Background Although much of the research on the influence of parenting on child development has emphasised the mother's role, increasing evidence highlights the important role of fathers in the development, health and well-being of their children. In this study we aimed to investigate the association between father involvement in early child upbringing and depressive symptoms in the same children in their pre-teenage years.

Methods Data for the study came from the Avon Longitudinal Study of Parents and Children (ALSPAC) cohort from the southwest of England. The outcome, depressive symptoms, was measured using the short Moods and Feelings Questionnaire (sMFQ) when the children were 9 and 11 years of age. The primary exposure was paternal involvement measured using scores derived from factor analysis of fathers' report of their participation in, understanding of, and feelings about their child's early upbringing.

Results Three factors were identified in the factor analysis. Scores on factor 1 measured fathers' emotional response to the child; scores on factor 2 measured the frequency of fathers' involvement in domestic and childcare activities; scores on factor 3 measured fathers' feelings of security in their role as parent and partner. Children of fathers with high scores on factors 1 and 3 had 12% (OR 0.88, 95% CI 0.81–0.97, p=0.009) and 9% (OR 0.91, 95% CI 0.82–1.00, p=0.040) respectively lower adjusted odds of reporting more depressive symptoms at 9 years. There was no evidence of a difference in depressive symptoms associated with factor 1 and factor 3 scores at 11 years. However, there was weak evidence of a 13% increase in odds of reporting more depressive symptoms associated with 1 unit increase in factor 2 scores at age 9 years (OR 1.13, 95% CI 0.99–1.29, p=0.061) and a 16% increase at 11 years (OR 1.16, 95% CI 1.01–1.34, p=0.040).

Conclusion Positive psychological and emotional aspects of father involvement in children's early upbringing, but not the quantity of direct involvement in childcare, may protect children against developing symptoms of depression in their preteen years.

P20 CUMULATIVE EFFECT OF ADVERSE CHILDHOOD EXPERIENCES ON AFFECTIVE SYMPTOM TRAJECTORIES IN ADULTHOOD: EVIDENCE FROM A BRITISH BIRTH COHORT

[1]EJ Thompson*, [2]M Richards, [1]D Gaysina. *[1]School of Psychology, University of Sussex, Brighton, UK; [2]MRC Unit for Lifelong Health and Ageing, University College London, London, UK*

10.1136/jech-2017-SSMAbstracts.122

Background Previous studies have shown that specific types of adverse childhood events (ACEs), such as parental divorce and parental psychopathology, pose a risk for the development of affective symptoms in adulthood (AS). However, a majority of this evidence is based on single types of retrospectively reported ACEs. This is problematic as ACEs tend to be interrelated and often co-occur.

Methods We used the data from the MRC National Survey of Health and Development (NSHD). This is an ongoing longitudinal study of 5362 women and men who were born in Britain in1946. Later life AS were measures using the General Health Questionnaire (GHQ) at ages 53 y, 60–64 y and 69.

Multiple imputation was implemented on each ACE predictor and a cumulative risk index was derived though summing the number of adversities experienced by each participant (0, 1, 2, 3…20) before age 16 y. The effect of cumulative ACEs on AS at each time point (53, 60–64 and 69) was examined using linear regression.

Results Preliminary analyses revealed a significant association was found between cumulative ACEs and AS at ages 60–64, $\beta(1, 2183)=0.07$, p=0.002, and 69, $\beta(1, 2110)=0.07$, p=0.003, but not age 53 $\beta(1, 2900)=0.04$, p=0.058. Further to this growth mixture modelling will be used to model latent trajectories of AS between age 53 and 69 years and the effect of cumulative ACEs will be examined.

Discussion These findings will be presented in light of the growing evidence for the negative effects of ACEs on health and wellbeing in later life. Furthermore, we will discuss how