

OP44 **FEEDING DIFFICULTIES AND MATERNAL CONCERNS AT AGE 3 YEARS ARE ASSOCIATED WITH A DECLINE IN CHILDREN'S DIET QUALITY TO AGE 6**

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**Background** Cross-sectional studies show that picky eating behaviours in young children are associated with poorer quality diets. Limited longitudinal research explores whether these effects persist until later childhood. We assessed feeding difficulties and eating behaviours at age 3 years and their influence on quality of diet at age 3 and 6.

**Methods** The Southampton Women's Survey is a prospective cohort study of women pre-pregnancy, those that became pregnant and their children. Complete data for this analysis were available on 1946 mother-child pairs. When children were age 3 years, mothers completed a questionnaire assessing frequency of feeding difficulties, and concerns about specific eating behaviours in three categories indicating the level of the problem. Diet was assessed using a food frequency questionnaire. Principal components analysis was used to examine dietary patterns; a z-score was derived with higher scores reflecting a better quality of diet. Dietary assessment was repeated at age 6 years. Linear regression models were used to assess associations between feeding difficulties, concerns about eating behaviours and diet scores at age 3 and 6. Models were adjusted for maternal age, education and number of children, and interactions between feeding difficulties and maternal concern about eating behaviours were assessed.

**Results** At age 3 more frequent feeding difficulties were associated with poorer quality diets [ $\beta$  -0.14 SD/category (95% CI -0.18,-0.09)]. Greater maternal concern about the eating behaviours 'my child refused to eat the right foods' and 'my child has been choosy with food' was associated with poorer quality diet at age 3 [ $\beta$  -0.33 SD/category (95% CI -0.43,-0.23) and  $\beta$  -0.20 SD/category (95% CI -0.31,-0.09), respectively] compared to children whose mothers were less concerned. These associations remained at age 6, even after adjustment for diet score at age 3, suggesting that greater maternal concern about their child 'refusing to eat the right foods' and 'being choosy with food' was associated with a worsening of children's diet quality to age 6 [ $\beta$  -0.13 SD/category (95% CI -0.23,-0.04) and  $\beta$  -0.16 SD/category (95% CI -0.27,-0.05), respectively].

**Conclusion** These findings suggest that the way mothers respond to their child's eating behaviours at age 3 might influence a decline in children's quality of diet until age 6. Heightened maternal concern may generate a negative feeding environment which exacerbates picky eating behaviours in young children. Family support during preschool years for managing eating behaviours could contribute to more optimal diets in early childhood.

## Behaviours 1

OP45 **THE EFFECT OF MULTIPLE RISK BEHAVIOURS IN ADOLESCENCE ON EDUCATIONAL ATTAINMENT AT AGE 16 YEARS: A UK BIRTH COHORT STUDY**

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**Background** Single health risk behaviours are negatively associated with educational outcomes, but any relationship between multiple risk behaviours (MRB) and educational attainment has not been explored. We assessed the extent to which simultaneous engagement in MRB during adolescence is associated with examination performance at age 16 years.

**Methods** Data from the Avon Longitudinal Study of Parents and Children (ALSPAC), a population based birth cohort study of children born in England between 1991 and 1992 were used in linear and logistic regression analyses. We estimated the association between the total number of a wide range of health risk behaviours (including tobacco smoking, hazardous alcohol use and TV viewing) ranging from 0 to 13 behaviours, and educational attainment. The outcomes were: capped General Certificate of Secondary Education (GCSE) score and odds of attaining five or more GCSEs at grades A\*-C. Multiple imputation was used to account for missing data.

**Results** We found that engagement in MRB was strongly associated with poorer educational attainment and each additional risk equated to a one grade reduction in capped GCSE score or a reduced odds of attaining five or more A\*-C grades of 23%. The average cohort member engaged in 3 MRB and would therefore have an associated reduction in their GCSE examinations equivalent to three grades in one examination, or reduced odds of attaining five or more A\*-C grades of 69%.

**Conclusion** Our findings show for the first time that engagement in a greater number of MRB during adolescence is strongly associated with poorer educational attainment at age 16 years. Preventing MRB could improve educational attainment and thereby directly and indirectly improve longer term health outcomes.

OP46 **CHANGES IN CONSUMPTION OF ADDED SUGARS FROM AGE 13 TO 30 YEARS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF LONGITUDINAL STUDIES**

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**Background** Intake of added sugar among adolescents is generally above recommended levels. Added sugar intake has been associated with weight gain and cardiometabolic risk factors during adolescence. Dietary habits developed during this