OP52 THE PREVALENCE AND CORRELATES OF OBJECTIVELY MEASURED SEDENTARY TIME IN PREGNANT WOMEN AT RISK OF GESTATIONAL DIABETES IN THE UK: A MIXED METHODS STUDY

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Background Despite increasing interest in the impact of sedentary behaviour on health, little is known about sedentary behaviour during pregnancy. Given the association between sedentary behaviour and risk of type 2 diabetes, it is particularly important to understand the prevalence and correlates of sedentary behaviour during pregnancy in women at risk of gestational diabetes. The aims of this mixed methods study were to 1) quantify objectively measured sedentary time during pregnancy in women at risk of gestational diabetes, 2) quantitatively examine the correlates of objectively measured sedentary time, and 3) explore the place of sedentary behavior and physical activity in these pregnant women's lives using qualitative data.

Methods Pregnant women (n=192) recruited from two hospitals in the North East of England who had a risk factor for gestational diabetes continuously wore activPAL accelerometers for seven days during the second trimester, and a subsample of participants (n=18) took part in a semi-structured interview in the third trimester. Multiple linear regression analyses were applied to accelerometry data and thematic analysis was conducted with interview data using NVivo11.

Results On average, women spent 9.57 hours per day (SD=1.62) engaged in sedentary behaviour, which accounted for 71.7% of waking hours. In multivariate linear regression models, the only statistically significant predictor of sedentary time was Index of Multiple Deprivation. Time spent sedentary was 9.29 hours (95% CI 9.00 to 9.57) for the most deprived tertile, 10.26 hours (95% CI 9.74 to 10.78) for the middle tertile, and 9.81 hours (95% CI 9.29 to 10.33) for the least deprived tertile. The key overarching theme that emerged from the interview data was that there was a social expectation that the participants should slow down and sit down simply due to their pregnancy status, which often conflicted with participants' own perspectives that their roles in everyday life were incompatible with 'sitting around.'

Conclusion These findings indicate that sedentary time during pregnancy may be socially patterned such that those residing in the most deprived areas spend significantly less time sedentary than those in less deprived areas. Furthermore, the reported strong social expectation for pregnant women to slow down and halt their everyday lives is a challenge for interventions to reduce sedentary time and increase physical activity during pregnancy.

OP53 THE ASSOCIATION BETWEEN MODE OF DELIVERY AT BIRTH AND WHEEZING TRAJECTORIES – EVIDENCE FROM THE UK MILLENNIUM COHORT STUDY

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Background Delivery by caesarean section has been identified as a risk factor for asthma. Meta-analyses have reported a 20% increased risk for childhood asthma or its common symptom – wheezing. However, asthma is a heterogeneous disease with distinct phenotypes portrayed as various wheezing trajectories. We sought to assess the relationship between mode of delivery at birth and three commonly identified wheezing trajectories of childhood, as well as additional asthma-related outcomes.

Methods Data were drawn from the UK Millennium Cohort Study and included 8744 participants who were singleton, born at term and healthy at the time of birth. Participating families were interviewed at infancy and at ages 3, 5, 7 and 11 years. Wheezing trajectories were examined through parental report of wheezing in the past year, which was coded as 'transient' (resolved by age 5) 'persistent' (both before and after age 5) or 'late-onset' (appearing starting age 5) compared to no report of wheezing. Relative risk ratios were estimated using multinomial logistic regression. Cross-sectional asthma-related outcomes of recent wheezing, severe recent wheezing, ever having asthma and asthma medication use were estimated using logistic regression.

Results Most of the children were born through unassisted vaginal delivery (72%); instrumental vaginal delivery, planned caesarean and emergency caesarean accounted for 10%, 9% and 10% of births respectively. The proportion of children exhibiting transient, persistent and late-onset wheezing was 11.6%, 11.1% and 12.9% respectively.

Children born by a medically interventional delivery had similar odds of experiencing transient wheezing compared to no wheezing as those born by unassisted vaginal delivery. The same was true for late-onset wheezing compared to none. The risk of experiencing persistent wheezing was higher in children born by planned caesarean compared to those born by unassisted vaginal delivery (RRR=1.33, 95% CI (1.02, 1.75)). Confounders accounted for were mother's age, education, marital status, socioeconomic position, smoking and parents' asthma in addition to child's sex, ethnicity, gestational age, birthweight and being firstborn. After adjustment, the elevated risk for persistent wheezing in the planned caesarean group remained unchanged and marginally significant (RRR=1.32 95% CI (1.00, 1.75)).

No consistent pattern of association between mode of delivery and additional asthma-related cross-sectional outcomes was found.

Conclusion Birth by planned caesarean section may be a risk factor for persistent wheezing in childhood, but not for the transient or late-onset trajectories of wheezing. However, the strength of evidence is low due to multiple comparisons and the absence of a consistent trend of associations with additional asthma-related outcomes.

OP54 ALCOHOL CONSUMPTION IN PREGNANCY AND CHILDHOOD HEARING AND NEURODEVELOPMENTAL PROBLEMS IN THE UK: ANALYSIS FROM THE MILLENNIUM COHORT STUDY

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Background Fetal Alcohol Spectrum Disorders (FASD) is the leading preventable cause of disability in children in the UK. Identification and diagnosis of FASD is poor, with many children receiving diagnoses of other neurodevelopmental deficit