

P15 EXPOSURE TO PM_{2.5} IN EARLY PREGNANCY WAS ASSOCIATED WITH ABNORMAL CORD INSERTION IN A JAPANESE PREGNANT POPULATION

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Background Fine particulate matter (PM_{2.5}) is not an established, but a strongly suspected risk factor in the occurrence of adverse maternal and foetus outcomes. Currently, the researchers have an interest in the critical time window for maternal exposure to PM_{2.5}, and maternal and foetus health. Although exposure to PM_{2.5} is likely to have adverse effects from the early pregnancy, including the period of implantation, there is not enough evidence. To evaluate the effects of PM_{2.5} exposure and its components in the early pregnancy, we used abnormal cord insertion, which is one of placental implantation abnormalities, as an outcome, and examined the PM_{2.5}-cord insertion association.

Methods Data on 83,454 mothers who delivered singleton births at 39 cooperating hospitals between 2013 and 2015 in 23 Tokyo wards was obtained from the Japan Perinatal Registry Network database, which was managed by the Japan Society of Obstetrics and Gynaecology. At one central monitoring site, fine particle was collected on a filter each day, and carbon and ion components of PM_{2.5} were analysed. The period of the first trimester (0–13 gestational weeks) was estimated to each woman, and the average concentrations in that period were calculated by the daily measurement of PM_{2.5} and its components. Abnormal cord insertion was defined as velamentous and marginal cord insertion. The odds ratios (ORs) of abnormal cord insertion were estimated using multi-level logistic regression analysis.

Results In this population, the mean age at delivery was 33.7 years, and the proportion of abnormal cord insertion accounted for 4.5%. The median concentration of total PM_{2.5} over the first trimester was 16.1 (interquartile range (IQR) = 3.6) µg/m³. Exposure to total PM_{2.5} was associated with abnormal cord insertion (OR per IQR = 1.09, 95% CI = 1.02–1.16). In the multi-component model, organic carbon was only component that increased the odds of abnormal cord insertion in a consistent manner. In addition, exposure to organic carbon over the first month of pregnancy (implantation period) was clearly associated with outcome.

Conclusion The findings in this study supported our hypothesis that exposure to PM_{2.5} has unfavourable effects from the early pregnancy.

P16 KNOWLEDGE, ATTITUDE AND PRACTICE OF COMPLEMENTARY FEEDING AMONG MOTHERS OF CHILDREN AGED 6 TO 24 MONTHS IN MUSHIN LOCAL GOVERNMENT, LAGOS, NIGERIA

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Background It is well recognised that the period between birth and 2 years of age is a critical window to promote health and development, and prevent stunting. In most countries, the majority of the decline in length-for-age during the first 2 years of life occurs during the complementary feeding period, between 6 and 24 months of age. Prevalence of optimal complementary feeding practices are lower than expected. Under-nutrition contributes 35% of child mortality. Poor complementary feeding of children aged 6 to 24 months contributes to the characteristic negative trends and deaths observed in developing countries.

Methods This is a community-based cross-sectional descriptive study using a semi-structured questionnaire which was interviewer-administered to 380 mothers of children aged 6 to 24 months in the community. Multi-stage sampling was used to select the study participants. Epi-info version 7 was used to analyse the data.

Results Of the mothers interviewed, 50.79% of them reported good knowledge; 66.84% had good attitude and only 25.26% had good practice of complementary feeding. The significant factors affecting complementary feeding practice were mothers' educational status (p-value=0.0005); antenatal clinic visits (p-value=0.0006); and household monthly income (p-value =0.0000)

Conclusion The results of this study indicate that complementary feeding practices are suboptimal in Mushin local government of Lagos, Nigeria. In addition, there is knowledge-practice gap among the mothers owing to factors such as mothers' educational status, household income and antenatal clinic visits.

P17 CORRELATES OF IMMUNISATION STATUS OF CHILDREN UNDER FIVE IN BADAGRY LOCAL GOVERNMENT AREA, LAGOS, NIGERIA

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Background Despite the success and cost-effectiveness of immunisation in preventing infectious diseases, vaccine preventable diseases still contribute to child mortality in Africa. Results from the Nigeria Demographic and Health Survey suggest a low coverage of childhood immunisation reporting only 31% of Nigerian children who have received all basic vaccinations. This study aimed to determine the immunisation status of children under five, and significantly associated correlates regarding childhood immunisation and timeliness of vaccine uptake among these children in Badagry Local Government Area (LGA), Lagos, Nigeria.

Methods This descriptive cross-sectional study was conducted among 140 mothers of children under five residing in Badagry LGA, selected using multi-stage sampling. The main outcome was the child's immunisation status. Data was collected using KoBoToolbox and sought information about immunisation history and associated independent variables of parental age, educational level, occupation, household characteristics, antenatal and birth history. Analysis was done with Epi Info ver 7. Associations between independent and dependent variables were assessed using chi square test with level of significance set at p<0.05. Ethical approval was obtained from Lagos University Teaching Hospital Human Research Ethics Committee (LUTH-HREC).