

Maternal and Child Health, 2: Free Papers

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The Association of Maternal Age with Birth Weight and Gestational Age: A Cross-Cohort Comparison.

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INTRODUCTION: High prevalence of low birth weight (LBW) and preterm birth has been reported in adolescent and older mothers, but most studies fail to address potential confounding for SEP (socioeconomic position). We aimed to examine associations of maternal age with LBW and preterm birth in four cohorts from a middle- and a high- income country, where the patterning of maternal age by SEP is likely to differ.

METHODS: Population-based birth cohort studies were carried out in the city of Pelotas, Brazil in 1982, 1993 and 2004, and in Avon,

UK in 1991 (ALSPAC), with 4581, 4761, 3225 and 8009 births, respectively. Newborns weighing <2500g were classified as LBW. Births before the 37th week of pregnancy were classified as preterm. **RESULTS:** Low SEP was associated with younger age at childbearing in all cohorts, but the magnitudes of these associations were stronger in ALSPAC than in Pelotas. Inverse associations of SEP with LBW and preterm birth were observed in all cohorts. U-shaped associations were observed between maternal age and odds of LBW in all cohorts. However after adjustment for SEP, odds of LBW decreased or disappeared for young mothers (<20yrs) and remained or increased for older mothers (35+yrs). When we pooled results across all four cohorts (P-value for interaction=0.9) to examine very young mothers as a separate group, the adjusted odds of having a LBW infant compared to 25–29yrs for <16yrs and 35+yrs were 1.48 (95% CI 1.00; 2.20) and 1.66 (95% CI 1.36; 2.02), respectively. The corresponding results for preterm birth were 1.80 (95% CI 1.23; 2.64) and 1.38 (95% CI 1.15; 1.67), respectively.

CONCLUSIONS: Confounding by SEP explains much of the excess risk of LBW and preterm among babies born to teenage mothers as a whole, but not for mothers aged <16 or 35+. Given that the

proportion of women becoming pregnant at <16yrs is smaller than for those 35+yrs, the population burden is greater for older age.