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## Dietary supplement use during late pregnancy in South Asian women living in Britain

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Infants born to women of South Asian origin in England have a lower birth weight than the UK general population<sup>(1)</sup> and this is evident in women of South Asian origin born in and outside the UK<sup>(2)</sup>. The cause is yet largely unknown but as maternal nutrition can account for up to 5.0% variance in birth weight further investigation is required<sup>(3)</sup>. The primary objective of this study was to examine patterns of nutritional supplementation during the later stages of pregnancy and to consider that pattern in relation to birth weight of infants born to South Asian (Pakistani, Indian and Bangladeshi women) and White women living in Bradford. A secondary objective was to determine the most frequently accessed sources of dietary advice during pregnancy in both ethnic groups.

Pregnant women (26–28 weeks gestation) attending the Bradford Royal Infirmary for a glucose tolerance test were recruited as part of the larger Born in Bradford project (BiB)<sup>(4)</sup>. Five hundred and eleven White and 651 South Asian women completed a partly interviewer-administered and self-administered questionnaire to gather data regarding supplement use and sources of nutritional advice during pregnancy, including advice from family members, friends, magazines/newspapers, books, GP/Doctor, midwives/health visitors and others. Birth weight data was subsequently collected from all women.

Chi-squared analysis (SPSS v18) revealed a positive association between ethnicity and supplement use at 26–28 weeks gestation ( $P < 0.001$ ) with South Asian women being more likely to use nutritional supplements than White women. Specifically, the use of folic acid and Fe was significantly higher in South Asian women compared with White women ( $P < 0.001$ ), whereas multivitamins were more frequently taken by the White women ( $P < 0.001$ ). Term birth weight was significantly lower for South Asian ( $P < 0.001$ ) compared with White infants. South Asian women who took Fe supplements had infants with greater term birth weights than South Asian women who did not ( $P = 0.047$ ) but further potential confounding variables would need to be considered before any causal link could be identified. In both ethnic groups, the most frequently reported source of nutrition advice during pregnancy was from midwives and health visitors (representing 37 and 29% of all responses from the South Asian and White women, respectively), with advice from family members the second most frequently reported (28 and 20% of all responses from South Asian and White women, respectively).

The potential that supplementation in South Asian women could be associated with higher birth weights in full-term infants justifies further examination. In addition, the primary sources of nutritional advice during pregnancy for both ethnic groups are midwives and health visitors indicating that these are both important means of imparting nutrition-related health messages to pregnant women.

Ethical approval for the study was obtained from the Ethics Committee at the University of Central Lancashire, the Bradford Research Ethics Committee and the NHS LREC.

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