Reviewer's report

Title: Paternal Race/Ethnicity and Very Low Birth Weight

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Reviewer: Ashalatha Shetty

Reviewer's report:

This is a good topic to look at, i.e paternal race/ethnicity as a risk marker for VLBW.

However I think the main problem with the data set analysed is that there is an absolute cut off for birth weight (<1500 or > 1500gms) without adjusting for the gestational age at all. So it is very difficult to be sure if the authors here are talking about an increased risk of preterm labour and therefore VLBW or a genuine growth restriction; these two are very separate and different problems.

From what gestation were live births included in the dataset? 24 weeks? 22 weeks or any other?

What is the actual difference between race and ethnicity - would it not be possible to use one or the other through the text after an explanation at the beginning.

There is no account taken or adjustments made for the other maternal conditions that might account for VLBW - PET, APH, diabetes, sickle cell disease, even preterm delivery in the current pregnancy etc being some.

Parity, maternal BMI etc. are also not considered for the outcome of BW, and multiple pregnancies are also included in the dataset who could be considered a separate problem group in terms of complications. In fact with the multiple gestations the OR for VLBW is shown to be high (but different. Table 3) in the various maternal groups and this has the potential to skew the other results.

The numbers of smokers in the dataset is very low (< 6%, unsure if that is a true reflection) and a previous history of preterm labour is also very low at 1.3%. Can the authors present any other stats from other groups to back these findings in their own data. Also what gestation did they define as preterm?

While the Kotelchuck Index is a measure of care received it can be argued that the small for dates babies would be expected to have more antenatal visits for care, and this is reflected in the results, which shows a higher index in the small babies.

There is no explanation as to why some findings are different in some groups - eg. why is maternal age > 40 not associated with adverse outcome in non African American mothers, and again with maternal smoking and previous history of preterm labour why might the results be different.
It would be interesting to do the analyses in table 2 for all the pregnancies not just the VLBW babies, the results might not be that different? In Table 3 while it states that the associations are 'adjusted' it does not state what variables were adjusted for in each of the calculations.

Overall if a more homogenous group eg all singleton pregnancies in primiparous women, with some more maternal variables that might affect BW included and adjusted for, and with gestation specific birth weights available, the results would be more credible..

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare I have no competing interests