

### Race, Parity, and Gestational Diabetes as Risk Factors for Type 2 Diabetes Mellitus

To the Editor: Dr Brancati and colleagues<sup>1</sup> found that even after adjustment for potentially modifiable factors, the relative risk (RR) for diabetes was higher for African American women vs white women than it was for African American men vs white men. We wish to suggest 2 possible explanations for this finding.

First, among white women, high parity might<sup>2</sup> or might not<sup>3</sup> be a risk factor for type 2 diabetes. A study of older white women has shown that the association between parity and increased insulin resistance is discernible at ages 50 to 89 years,<sup>4</sup> many years after childbearing. African American women may experience an even greater increase in insulin resistance than white women in association with multiparity as is suggested by evidence from a longitudinal study.<sup>5</sup> African American women with multiple pregnancies had waist-to-hip ratio increases twice as great as African American women with no pregnancies, whereas white women with multiple pregnancies did not differ from white women who had never been pregnant in waist-to-hip ratio changes.<sup>5</sup> Based on national data from 1960, the African American women in the study by Brancati et al probably had an increased total fertility rate compared with the white women (4542 total births per 1000 women vs 3533 total births per 1000 women) and an increased annual birth rate with high multiparity (30.9 births per 1000 women vs 8.4 births per 1000 women for the sixth live birth and above).<sup>6</sup> Since prolonged insulin resistance leads to type 2 diabetes, the combination of higher multiparity along with greater insulin resistance in the multiparous condition could explain at least some of the observed excess diabetes risk among the African American women.

Second, there might have been a racial difference in the reliability of ascertaining preexisting gestational diabetes as a condition for exclusion of normoglycemic women from the cohort. At the time of childbearing for most of the cohort, African American women had received less prenatal care than white women. Thus, a white woman with gestational diabetes was more likely to be diagnosed than an African American woman with the same condition. White women with a known history of gestational diabetes might, therefore, have been excluded from the study, whereas African American women with an un-

recognized history of gestational diabetes might have been included.

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