In the article recently published by Henderson et al. (1) from the Multiethnic Cohort Study, the authors reported significant race/ethnicity-specific hazard ratios for the timing of menopause. Natural menopause occurred earlier among Latinas and later among Japanese-American women relative to non-Latina whites. The authors further emphasized that these relations are suggestive of a heritable component in the timing of natural menopause. They concluded by stating, “...the timing of natural menopause is driven by a combination of genetic, reproductive, and lifestyle factors” (1, p. 1292).

This conclusion suggests that the analysis of these data provides some evidence to support the assertion that group difference in the timing of menopause is at least partially driven by genetic factors. The authors reached this conclusion without stating how racial categories were assigned (2) and without collecting any genetic information. Although the authors are diplomatic in the overall interpretation of their results, the reference to genetic factors in the concluding statement seems to stem solely from the fact that racial/ethnic groups are compared. An assertion that racial/ethnic disparities in an outcome suggest genetic differences ignores the complex social context experienced by different racial/ethnic groups. This tenuous link among genes, race/ethnicity, and health outcomes is often made in the epidemiologic literature without adequately considering other important social and environmental factors that differ between groups (3, 4).

The authors did describe an ancillary analysis in which educational attainment, as a surrogate for socioeconomic status, was included as a covariate, but this is obviously a very coarse measure of the many facets of social environment that may affect the outcome. In fact, a prior study of factors influencing the age of menopause identified several additional social variables, such as marital status and employment, which played an important role in predicting menopause onset (5). This previous study also reported associations between race/ethnicity and onset of menopause, but it did not suggest a genetic basis for those differences (5).

In short, the use of race/ethnicity as a proxy for genetic differences in large, heterogeneous populations is unwarranted; drawing conclusions about the role of genetics in biologic processes requires the collection of genetic data.

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REFERENCES


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