Disaggregating the Effects of Race and Poverty on Breast Cancer Outcomes

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Over the past 20 years, there has been an increasing racial disparity in breast cancer mortality (1) (Fig. 1). Although the mortality rates for African-American women have recently begun to fall, the rates for white women have fallen at a greater pace, meaning that the disparity between black and white women has continued to increase every year since 1981. Finding the true reasons for the disparity is important if we are to effectively reduce it. So often, our ability to see the truth in racial matters is obscured by our fear of dealing with the issue of race. Bradley et al. (2) take a giant step toward finding the truth in their study entitled “Race, Socioeconomic Status, and Breast Cancer Treatment and Survival.”

Their study demonstrates that socioeconomic factors that act largely through and are associated with race are responsible for much of the disparity between black and white women. Many factors that determine socioeconomic status are intimately related to race. However, in previous studies of cancer outcomes, it has been difficult to distinguish the effects of poverty from the effects of race (3,4). Most case–control studies have not enrolled enough wealthy blacks or poor whites to show that poverty is a poor prognostic factor independent of race. Socioeconomic status not only reflects income but also one’s age at bearing children, one’s diet, and other extrinsic influences on cancer etiology and behavior. Better definitions of these factors are still needed.

In the population-based study reported by Bradley et al. (2), low-income women of all races, but especially black women who were uninsured or under insured, were more likely to receive less-than-adequate care after receiving a cancer diagnosis. These women had access to medical care such that they were diagnosed with cancer, so lack of access to health care is not a reason for receiving care that is less than adequate. Clearly, the national research agenda should include studies to determine why this less-than-adequate care is rendered to the poor and how to render them optimal care.

The results of this study discredit the hypothesis that race is an inherent determinant of the biologic behavior of breast disease. In the past decade, some well-meaning individuals have suggested that the racial disparity exists because breast cancer is a more aggressive disease in blacks than it is in whites. Some have even suggested that breast cancer is a different disease in blacks than it is in whites (5,6). Some have gone so far as to suggest that the drugs used to treat breast cancer have not been tested as adequately in blacks as they have in whites (7). The National Institutes of Health Revitalization Act of 1993 is legislation that even contains language that says that clinical trials must be designed to determine the effects of test interventions in the various races (8).

Race is a social variable, not an inherent biologic variable. It is clear that, compared with white women, a disproportionately higher proportion of black women present with later-stage disease and that, within any one stage, a higher proportion of blacks than whites have poor prognostic markers, such as higher pathologic grade and estrogen receptor-negative disease (3,9). Gordon and colleagues (10,11) have shown that low education level and low income are associated with the diagnosis of estrogen receptor-negative tumors, which suggests that factors associated with socioeconomic status may influence the biologic behavior of breast cancer. Indeed, those studies (10,11) and the Bradley study (2) combined do much to explain the population differences in stage, pathology, and breast cancer outcomes between blacks and whites and help us understand that factors that affect breast cancer outcomes are important to Americans of all races and ethnicities.

There are good data supporting the concept that inherent or genetic differences are not the reasons that blacks have higher breast cancer mortality rates than whites. The most obvious evidence is the fact that there was no disparity in mortality between blacks and whites in the United States before 1980. It is distressing that Bradley and colleagues (2) found that, after adjusting for age, socioeconomic status, and insurance coverage, black women diagnosed with breast cancer were less likely to receive surgical removal of their tumors than white women. However, it is gratifying that Medicaid was an equalizing force in breast cancer patterns of care. This study shows that whereas race is not important biologically, it is still very important in American society. It is a sad statement that race influences one’s chances of obtaining adequate medical care. In the United States, it is bad to have cancer; it is worse to be poor and have cancer; and it is even worse to be poor, black, and have cancer.

The fact that a logistical issue, the provision of adequate care, lies behind much of the breast cancer disparity between blacks and whites should help focus society and the research community. Reasons for the differences in care received could include the lack of convenient accessible care, refusal by the patient, inappropriateness of care because of comorbid conditions, and unfortunately, racism and socioeconomic discrimination (12,13). Better defining the reasons for the disparities is important to the national research agenda: Society needs to commit itself to the provision of adequate care for all.

Results of several breast cancer clinical trials demonstrate that equal treatment yields equal outcomes among equal patients (14–16). Other institution-specific treatment series demonstrate that outcomes are similar among the races when there is equal treatment (17–19). These findings, taken together with the fact that the racial disparity in mortality began in 1981, are consistent with the hypothesis that as we have learned how to treat breast cancer, a larger proportion of one segment of the population (the middle and upper class, which is primarily white) is receiving better (or more effective) treatment than are other segments of

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See “Note” following “References.”
the population. Patterns-of-care studies suggest that a larger proportion of poor and/or black women receive care that is less than adequate when compared with that provided to white women (20–22).

The Bradley paper (2) helps focus the issue on poverty: Rather than speaking in racial/ethnic terms of black and white populations, it is more appropriate to speak in socioeconomic terms of the “haves” and the “have-nots.” This focus would rightfully bring other socioeconomically deprived populations that include whites, Hispanics, Native Americans, and Asians, into the discussion.

The problem of disparity in the receipt of treatment goes beyond breast cancer and includes a number of other cancers (23). Whether because of race, socioeconomic, or some other factor, many do not experience high-quality health care. Several years ago, Dr. Harold Freeman and I wrote that the unequal patterns of care in the United States raise “deep ethical and moral questions concerning how the research community, the American health care system, and society as a whole will move toward providing remedies for this unacceptable reality” (24). The disparity remains an unacceptable reality, and it is an unsettling truth that we, as a society, have made meager efforts to even recognize the problem. We must provide equal quality medical care to all. The solutions are not simple, but we must try.

REFERENCES


NOTE

1Editor’s note: SEER is a set of geographically defined, population-based central cancer registries in the United States, operated by local nonprofit organizations under contract to the National Cancer Institute (NCI). Registry data are submitted electronically without personal identifiers to the NCI on a biannual basis, and the NCI makes the data available to the public for scientific research.