RESEARCH ISSUES IN THE STUDY OF VERY LOW BIRTHWEIGHT AND PRETERM DELIVERY AMONG AFRICAN-AMERICAN WOMEN

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Very low birthweight and preterm delivery explain two thirds of the excess deaths experienced by African-American infants. Although comprehensive, good quality services for all African-American women will help to reduce the twofold higher rate of infant mortality experienced by African-American infants compared with white infants, the infant mortality gap will not be closed until prevention research is conducted that incorporates the social, cultural, and political context of life for African-American women; the environmental stressors and the physiologic responses associated with stress; and the protective mechanisms available in the community for responding to stress. Discrimination may be an important stressor that influences a woman's susceptibility to a poor pregnancy outcome. Strategies already exist in the community to cope with discrimination and other environmental stressors. To capture the effects of discrimination and other environmental factors and the protective factors important for prevention, the research approach must involve African-American women and their communities as collaborators in the research. Such collaboration will help to avoid problems with scientific racism. (*J Natl Med Assoc.* 1994;86:761-764.)

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Recent workshops, literature reviews, and studies suggest that a new research strategy must be developed to reduce the twofold higher rate of infant mortality experienced by the African-American community compared with whites. This new research agenda should consider three points. First, improving the safety net of services provided to all women and children in this country is still an important goal, especially for African-American women. Second, improving the current practice of health care will not alone reduce the excess infant mortality and morbidity experienced by African-American families because the excess rate of infant mortality persists even among women with adequate access to care. Therefore, an understanding of the unique factors that contribute to the excess rate is needed. Third, a new research approach should involve the community in defining and shaping the study agenda and should incorporate the experiential knowledge of women and their communities. This third suggestion departs from the traditional approach of the scientific method in which the researcher defines the content of the study.

IMPROVING POOR OUTCOMES

The main contributors to the excess mortality among African-American babies are the high rates of preterm delivery and very low birthweight (<1500 g), and the excess rate of postneonatal mortality among normal birthweight babies. Although very low birthweight babies represent a fraction of all live births in the United States (2.3% of singleton births among African Americans and 0.8% among whites), they account for almost

two thirds of the disparity in infant mortality between African Americans and whites.[1] Another 25% of the gap in infant mortality derives from deaths among normal birthweight babies, many of whom survive the first 28 days of life but die during the postneonatal period.[1]

Preterm delivery, very low birthweight, and postneonatal mortality should not be viewed as single disease entities. Although very low birthweight babies fall into a common birthweight range, they represent a variety of gestational ages and growth parameters.[2] Preterm deliveries occur as a result of several final pathways, including medically indicated early deliveries, spontaneous rupture of membranes, and preterm labor.[3] Postneonatal deaths generally result from infections, injuries, congenital birth defects, and sudden infant death syndrome (SIDS).[4] Eliminating these outcomes will require a variety of interventions. Thus, better care for women and children that includes family planning, prenatal care, comprehensive health services, and health promotion activities—that is, a better safety net—will probably reduce the number of preterm and very low birthweight babies, and will definitely reduce the number of postneonatal deaths.

EXPLAINING DISPARITY DESPITE GOOD HEALTH CARE

The best safety net will not adequately reduce the problem of very low birthweight and preterm delivery. Consider, for example, the experience of African-American women who are college educated and have a health safety net plus occupational stability, health insurance, access to services, and early entry into care. The rate of death from SIDS and injuries are not elevated for infants of these women, but the rates of very low birthweight and preterm delivery rates remain exceedingly high.[4] Thus, the disparity in infant mortality for infants of African-American college-educated parents is almost as large for the general population.[4,5]

Even for African-American families who are not in poverty and have adequate access to care, something about being African American puts these families at higher risk than white families for having very low birthweight and preterm infants. Races are not genetically distinguishable. Differences in appearance (phenotypic features) literally may be skin deep. But phenotype may be associated with ethnicity and cultural experiences that shape a person's life.[6]

An explanation is needed for the disparity in very low birthweight and preterm delivery that occurs even among the most advantaged group of African Americans. Multiple factors are associated with the poor pregnancy outcomes experienced by African-American women. We hypothesize that environmental stressors associated with being African American in the United States are important contributors to the high risk of very low birthweight and preterm delivery. Previous studies have examined the relationship between psychologic and social stresses, such as stressful life events, work-related stress, and social support and pregnancy outcome.[7,8] Discrimination in the form of racism, sexism, and class differences are additional environmental stressors that need to be studied as part of the reason for the variation in pregnancy outcomes between African-American and white women.[9]

For more than two centuries, African Americans have been exposed to discrimination that not only influences their chances of being in poverty, limits access to care, and restricts the content and quality of care, but also may cause physiologic reactions that result in poor health outcomes.[9-15] Exposure to everyday racism, eg, socialized racist notions that are integrated into everyday community practice and become familiar or "normal" routine,[16,17] along with the responses and coping strategies elicited by everyday racism, may lead to physiologic changes. Some women may have such visceral reactions to the discrimination they are exposed to in their environment that it literally makes them sick. Changes in blood pressure, releases of catecholamine, or psychoneuroimmunologic responses may put these women at high risk for a preterm delivery.[18]

If certain environmental stresses are related to preterm delivery, then activities that reduce these stresses during pregnancy should be protective. These protective factors may be social support, family and community stability, work satisfaction, a caring health-care system, and as noted by Byllye Avery, president of the National Black Women's Health Project, a personal feeling of peace of mind. Women and their families have always developed ways of protecting themselves or of asserting themselves despite their environmental hazards. To develop the best prevention strategies, a holistic understanding of how environmental stressors and protective factors work to influence the health of women is needed. For example, if women need a tranquil environment during pregnancy to reduce cardiovascular or neuroendocrine reactivity, then health-care providers may need to negotiate releases from certain work- or home-related responsibilities, as well as support the notion of tender loving care.

What is needed is a research paradigm that can

describe the social, cultural, and political context of life for African-American women, the environmental stressors and the physiologic responses associated with stress, and the protective mechanisms available in the community for responding to stress. This new research paradigm, which will embrace an interdisciplinary conceptual framework, has the potential to result in a broader spectrum of potentially effective interventions.[19]

PARTICIPATORY COMMUNITY RESEARCH

Developing this research paradigm requires collaboration with African-American families. This participatory, collaborative research may be able to determine the stressors that result in physiologic reactivity, and how sources of support, the sense of stability, coping mechanism, and the factors that provide peace of mind reduce this reactivity. To find out the reasons for the disparity in infant mortality rate, researchers not only have to review the medical history, but also have to chronicle "her story," the experience of African-American women. Scientists cannot create categories of environmental stress a priori and ask women how they fit into the categories and cope with the stressors. The description of the stressors must capture the reality of how women experience their lives.

To capture this reality, women need to be consulted on the design of the study, on what should be studied, and on how to go about collecting the information. Women should be asked what benefit they would like to get out of the experience. To understand new perspectives on problems and the effectiveness of proposed interventions, scientists need to recognize the extraordinary value of listening to and learning from community people.[20] At the same time, community people may learn to appreciate the tremendous power of the scientific method for investigating the causes of problems and evaluating ways to reduce or ameliorate those causes.[21]

Collaborative research with women and their community will help to avoid the dual problems of scientific racism and intellectual colonialism.[22,23] The Tuskegee Syphilis Study is the most well-known example of scientific racism.[23] When intellectual colonialism occurs, professionals earn their salary, publish, and achieve tenure by using the raw data collected from the African-American community, while study participants may receive only a token contribution in return. Even when no direct harm is perpetrated on the study participants, the community receives no direct benefit from the study.[24]

CONCLUSION

Racism, sexism, and classism are some of the environmental factors that interfere with a woman's ability to achieve optimal health. These factors must be studied, described, and measured in the same way that we are willing to describe the effects of anemia, inadequate prenatal care, and lack of social support—the whole spectrum of factors that lead to poor pregnancy outcome. New techniques for describing the contextual factors that contribute to illness and health are needed. We must learn to be good collaborators with women to promote a better understanding of the causes of very low birthweight, preterm delivery, and infant mortality.

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