

Bone Marrow Donation: Factors Influencing Intentions in African Americans

Mary Ellen Smith Glasgow, PhD, RN, CS, and Gerald Bello, PhD

Purpose/Objectives: To identify factors influencing the intentions of African Americans to donate or not to donate bone marrow.

Design: Exploratory, descriptive.

Setting: Participants were recruited from three churches, four public housing developments, and a university teaching hospital—all in the Philadelphia, PA, area.

Sample: African American adults aged 18–60 years and able to read, write, and speak English.

Methods: Focus groups were conducted for the purpose of instrument development. A factor analysis was conducted on questionnaire data. A multiple regression was conducted of the demographic variables and the factors that contributed to behavioral intention to donate or not to donate bone marrow.

Main Research Variables: Attitudes, subjective norms, perceived behavioral control, and behavioral intentions regarding bone marrow donation.

Findings: “Fear or not trusting,” “external influences,” and “concerned about resources” correlated significantly with the intention not to donate bone marrow. Helping others, approval of people, and value of knowledge correlated significantly with the intention to donate bone marrow.

Conclusions: Greater attention must be paid to increasing donations and improving the critical need for bone marrow donors. Patient education programs should be expanded to improve African Americans’ knowledge of the importance of bone marrow donation, including the process, associated costs, and resources available to donors.

Implications for Nursing: Nurses—irrespective of practice areas—are key contributors to increase the rate of bone marrow donation, particularly among African Americans.

Key Points . . .

- If racial disparity in the current healthcare environment in the United States is a reason for lower donation and transplantation rates for African Americans, interventions should be designed to address issues of equity and trust in the U.S. healthcare system.
- Greater steps must be taken to increase bone marrow donor availability among African Americans. Given that education of patients and the lay community is integral to the role of nurses in hospitals, communities, and other settings, nurses are in an ideal position to impress upon African Americans the critical need for bone marrow donation and, while doing so, to encourage African Americans to become donors.
- To test new strategies to recruit African American donors, vigorous descriptive research on bone marrow donation in this population is a prerequisite for gaining knowledge of the intentions of African Americans regarding bone marrow donation, as well as an understanding of the barriers preventing African Americans from donating bone marrow.
- Patient education programs should be expanded to (a) provide explicit information regarding the matching process and the likelihood for African Americans to match other African Americans, (b) gather personal information about donor recipients so that potential donors can relate to the human side of donation, and (c) explain specific information about medical coverage, donor expenses, and resource issues.

A major obstacle confronting patients, nurses, other healthcare practitioners, and researchers involved with bone marrow transplantation is insufficient availability of bone marrow donors. The scarcity of donor availability is woefully problematic in the African American population, whose representation in the National Marrow Donor Program (NMDP) is disproportionately low as compared to Caucasian representation (Laver et al., 2001). African Americans constituted 388,847 (8%) of prospective donors in the NMDP and only 645 (4%) of transplant recipients (NMDP, 1999).

The race and ethnicity of bone marrow donors play a significant role in determining the probability of matching and, consequently, of survival (Confer, 2001; Mori, Graves, Milford, & Beatty, 1996; Yancey, Coppo, & Kawanishi, 1997). According to Laver et al. (2001), Caucasian patients with leukemia, lymphoma, or other disorders treatable with transplantation have about an 80% chance of finding unrelated bone marrow donors by searching the NMDP registry. In contrast, African American

patients find matches less than 30% of the time. Moreover, because some phenotypes are common among certain racial groups, human lymphocytic antigen (HLA) matching has become even more problematic with the increase of individuals with racial as well as mixed racial identities (Mori et al.).

Mary Ellen Smith Glasgow, PhD, RN, CS, is an associate professor and the associate dean for undergraduate programs, master of science in nursing programs, and continuing nursing education and Gerald Bello, PhD, is an associate professor and the director of the health, society, and administration programs, both in the College of Nursing and Health Professions at Drexel University in Philadelphia, PA. This research project was supported by the Oncology Nursing Society and Genentech, Inc. (Submitted May 2006. Accepted for publication October 3, 2006.)

Digital Object Identifier: 10.1188/07.ONF.369-377