The Interaction of Perceived Risk and Benefits and the Relationship to Predicting Mammography Adherence in African American Women

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Breast cancer is the second-most fatal form of cancer among women in the United States. Studies show that African American women experience higher breast cancer mortality rates compared with Caucasian women (33 of 100,000 versus 22 of 100,000, respectively) (Ries, Melbert, & Kraphcho, 2009). African American women continue to have lower five-year survival rates (78%) compared to Caucasian women (91%), leading to the increased mortality from breast cancer seen in the African American population (American Cancer Society, 2011). Screening mammography has been associated with a 44% reduction in risk of late-stage disease for all populations (Harris, Miller, & Davis, 2003). Although one-time use of mammography has increased (Breen, Gentleman, & Schiller, 2011), some women do not adhere to mammography screening recommendations that would reduce breast cancer mortality (i.e., yearly mammograms recommended at age 40 and continuing for as long as a woman is healthy) (Menon et al., 2007). Researchers have described relationships between theoretic variables included in the Health Belief Model (HBM) and mammography screening outcomes; however, little research has addressed the interaction of those same theoretic variables and their ability to predict mammography adherence.

HBM constructs, including perceived barriers to and self-efficacy for mammography, have been shown to predict mammography use (Champion, Skinner, & Menon, 2005; Ronis, 1992). Cultural beliefs among African American women also have been related to mammography screening, including fear of cancer discovery and treatment (Adams, Becker, & Colbert, 2001; Allen, Sorensen, Stoddard, Colditz, & Peterson, 1998; Champion et al., 2004; Karliner, Patricia, Juarbe, Pasick, & Perez-Stable, 2005; Mayne & Earp, 2003) and a fatalistic view about the inevitability of death once diagnosed (Mayo, Ureda, & Parker, 2001; Powe, 1994, 1995; Powe, Hamilton, & Brooks, 2006). In addition, folk beliefs such as injury spreading cancer (Lannin et al., 1998) and that cancer may be caused by squeezing and touching the breasts (Russell, Monahan, Wagle, & Champion, 2007) also may be barriers. Religious beliefs have been associated with...