Original Article

The Influence of Race and Gender on Nursing Care Decisions: A Pain Management Intervention

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Abstract:

Understanding whether a patient's race or gender and/or the nurse's race or gender influence how nurses form care decisions can contribute to exploration of methods that can positively affect disparate treatment. This research examined how the variables of race and gender of both the nurse and the patient influence nurses' decision making about pain management. A randomized four-group post-test–only experimental design was used to examine the variables and variable interactions. An investigator-developed case vignette tool hosted online was used to obtain data about nursing pain management decisions. The vignette intervention was developed to simulate four exact patient scenarios that differed only by patient race and gender. A quota sample of 400 nurses was recruited using a self-selected face-to-face recruitment technique. A four-way between-groups analysis of variance assessed whether the gender of the nurse, race of the nurse, gender of the patient, or race of the patient made any differences in the dose intensity of pain medications selected by the nurse sample. No significant interactions were noted between any combinations of the four independent variables. A significant main effect was noted in medication intensity for nurse gender ($F[1,384] = 9.75$, $p = .002$). Data trends suggested that gender stereotypes about how patients managed pain played a role in dose intensity decisions because female patients on average were given higher doses of pain medication than male patients were by all the nurses in the study. Further research is needed in this complex area of study.

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Patient care decisions are often complex and can be confounded by several provider-specific factors. For example, clinical uncertainty; stereotypes about patient gender, race/ethnicity, age, and other preconceived notions; and provider characteristics such as gender, race, age, and previous experiences have been reported as influencing delivery of patient care (Cooper et al., 2003; Ferguson &

Candib, 2002; Hagerty & Patusky, 2003; Tarlier, 2004; van Ryn & Fu, 2003). Judgments associated with a patient's status are often made through the activation and recall of nurses' education, experience, insight, and intuition. The greater the decision-making uncertainty, the more likely a provider is to lean on preconceived notions about the patient, thus creating an avenue to let bias influence care decisions.

This study examined whether specific factors such as race and gender of patients and race and gender of providers influenced patient care decisions made by nurses. Every individual experiences some type and intensity of pain during their lifetime, and pain occurs in every health care settings. Using pain as the content focus allowed a broad range of nurses from multiple specialties to serve as study participants. It was hypothesized that nurses who were matched with patients on the characteristics of race and gender would make different care decisions than nurses who were partially matched or not matched for race and gender.

Research related to factors that influence disparities such as pain management and nonadherence to care recommendations primarily has been in the domain of medicine and has focused on many of the contributing factors, such as socioeconomic status, health systems, utilization, and access, with little focus on the behavior and care decisions of the provider (van Ryn & Fu, 2003). Empirical evidence suggests that provider-patient interactions may influence patient outcomes, satisfaction, adherence, and disparities in health; however, theory development and research related to the topic are poor (Cooper et al., 2003; Ferguson & Candib, 2002; Hagerty & Patusky, 2003; Tarlier, 2004). Health outcomes studies examining provider-level sources where the race and gender of the provider and patient are studied are sparse and without consensus (Meghani et al., 2009). Much of the inquiry has been focused on patient-level sources for disparities, disregarding the potential contribution of the health care provider. Provider characteristics such as age, gender, race/ethnicity, and provider attitude may be significant factors in understanding the etiology of care disparities (Deepmala, Franz, Aponte, Agrawal, & Wei, 2012; Meghani et al., 2009).

It is well documented that differences in care based on gender and race exist (Borkhoff, Hawker, & Wright, 2011; Constantinescu, Goucher, Weinstein, & Fraenkal, 2009; Cooper et al., 2003; Cooper-Patrick et al., 1999; Epstein et al., 2003; Ferguson & Candib, 2002; Landers, 2009; Malat, van Ryn, & Purcell, 2006; Mulvaney-Day, Earl, Diaz-Linhart, & Alegria, 2011; National Cancer Institute, 2015; Schulman et al., 1999; Stevens, Shi, & Cooper, 2003; Weisse, Sorum, & Dominguez, 2003; Women and Heart Disease Fact Sheet, n.d.). There is a growing body of literature that reports differences in care practices as they relate to pain and pain management. Although it is accepted that biases exist, current literature remains mixed on how those biases affect care. Although literature states that the race and gender of the provider do not influence whether a provider will treat a patient's pain (Weisse et al., 2003; Weisse, Sorum, Sanders, & Syat, 2001), bias appears to exist in the manner in which pain management options are selected as treatment choices.

Specifically, differences in care practices related to patient gender produce mixed results. Women continue to be perceived to be more likely to report pain, more sensitive to pain, and less likely to endure pain than men (Defrin, Shramm, & Eli, 2009; Wandner, Scipio, Hirsh, Torres, & Robinson, 2012). However, in a recent study of 80 physicians and 113 nurse providers using vignettes and virtual patient images, male patient pain was rated higher than female pain and was treated more readily (Wandner et al., 2014).

In addition, differences may exist in gender-concordant and -discordant provider-patient relationships. Several studies reported that providers were more likely to administer medications to patients of like or concordant gender (Safdar et al., 2009; Weisse et al., 2001, 2003) than to patients of different or discordant genders. However, Criste (2003) found no difference in how male and female certified registered nurse anesthetists managed patients' pain, and Safdar et al. (2009) found no difference between patient gender and the pain medications prescribed.

When examining race, White patients were viewed as being more sensitive to and willing to report pain (Green et al., 2003; Wandner et al., 2012) than non-White patients. However, when differences in pain management based on race were assessed using virtual human patient technology, Black patient pain intensity was rated higher and was more likely to be treated with pain medication (Wandner et al., 2014; Weisse et al., 2003). Non-White physicians were also found to better relieve patient pain compared with White physicians (Heins, Homel, Safdar, & Todd, 2010). Congruent with disparity-based health care research (Center for Disease Control and Prevention [CDC], 2013; National Cancer Institute, 2015; Perry, Harp, & Oser, 2013; Williams & Sternthal, 2010), Black female patients received the least aggressive pain management intervention (Weisse et al., 2003), further confusing the understanding of this issue.

Nurses log more patient contact hours than any other health care providers, yet research related to