Chapter 51
Race and Gender Inequalities in Medicine and Biomedical Research

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ABSTRACT

There is a critical need to develop initiatives aimed at expanding and diversifying the healthcare workforce, beginning with medical education. This chapter addresses racial and gender disparities in academic medicine and biomedical research. Racial and ethnic minorities and women remain underrepresented in medicine, biomedical research, and healthcare leadership. These disparities are national issues and have far-reaching effects which translate into significant educational and healthcare-delivery disparities. Research has shown that health care professionals from underserved backgrounds are more likely than others to work in underserved areas which would address current shortages in health professionals for the medically underserved. The authors describe their theory for the existence and persistence of these disparities. They offer evidence of these disparities while concluding with current initiatives to address these disparities, calling for innovative approaches to training underrepresented minorities and women as physicians and biomedical research scientists.

INTRODUCTION

Of all the forms of inequality, injustice in health care is the most shocking and inhumane. (Martin Luther King, Jr., 1966)

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In 2015, African Americans and women remain underrepresented as senior medical faculty and among biomedical federal grant recipients (Carr et al., 2015; Ginther et al., 2011). There has been an attempt in recent literature to address these disparities that centers on how African American women’s perception of social identity and belongingness affect their expectations and experiences in medicine and biomedical research (Purdie-Vaughans et al., 2008; Steele et al., 2002; Murphy et al., 2007; Cheryan et al., 2009; Good et al., 2012; Burgess et al., 2012). This literature provides a useful point of departure to understand individual experiences and also to identify institutional practices that shape the experiences of African American women’s experiences in academic medicine and biomedical research. However, while the literature acknowledges the historical devaluation of women and African Americans in a broader U.S. context, it stops short of explicitly connecting the history of academic medicine to current patterns of gender and ethnic representation in the field. Toward that end, using a diversity science framework, the authors seek to link the history of academic medicine to the persistent underrepresentation of African American women and African Americans more globally. Further, the authors offer suggestions to address the continued barriers for women and minorities.

Diversity science framework\(^1\) is a sociocultural analytic tool useful in understanding how an individual’s behaviors are a reflection of the inscription of social, cultural and historical ideologies (e.g., ideas, beliefs or cultural assumptions), institutional practices (e.g., laws, language, or organizational policies) and daily experiences (Plaut, 2010). The diversity science framework suggests that the under-representation of African Americans in medicine has its roots in a report by Abraham Flexner in 1910, which would lay the foundation for the transformation of 20th century medical education. The Flexner report led to wide-sweeping reforms and shifted the paradigm of medical education toward a more professional model with well-trained professors, quality laboratories, and access to hospitals (Duffy, 2011; Hiatt & Stockton, 2003; Sullivan & Mittman, 2010; Savitt, 2006; Steinecke & Terrell, 2010; Barkin et al., 2010). However, the costly requirements were out of reach of most African American medical schools. As a result of his recommended reforms in medical education, most of the schools that provided medical education to women as well as African Americans were closed (Flexner, 1910; Duffy, 2011). The reduced opportunities for African Americans and women have contributed to the current inequities in the representation of African Americans in U.S. medical education and, ultimately, biomedical research (Hiatt and Stockton, 2003; Sullivan & Mittman, 2010; Savitt, 2006; Steinecke & Terrell, 2010; Barkin et al., 2010). Consistent with the theory of cumulative disadvantage (DiPrete TA, 2006), we posit that differences in treatment over a prolonged period have cumulated into substantial inequalities in race and gender representation in both medicine and biomedical research (Sheltzer & Smith, 2014).

**BACKGROUND**

In 1910, Abraham Flexner issued a report evaluating the state of medical education in the U.S. Flexner sought to increase the quality of physicians by normalizing medical education for the next generation of physicians. Flexner evaluated medical schools along objective criteria, including quality of professors, laboratory equipment, and affiliation with a hospital, but he was also influenced by the epidemic of racism and sexism of that era. Not surprisingly, his vision of normal centered primarily on a vision where Caucasian men constituted the vast majority of the medical profession. Furthermore, Flexner went on to argue that women showed a decreasing inclination to enter the profession, and that there was simply no strong demand for women’s medical training (Hiatt & Stockton 2003). Instead of allowing