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The pathways from perceived discrimination to self-rated health: An investigation of the roles of distrust, social capital, and health behaviors

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ABSTRACT

Although there has been extensive research on the adverse impacts of perceived discrimination on health, it remains unclear how perceived discrimination gets under the skin. This paper develops a comprehensive structural equation model (SEM) by incorporating both the direct effects of perceived discrimination on self-rated health (SRH), a powerful predictor for many health outcomes, and the indirect effects of perceived discrimination on SRH through health care system distrust, neighborhood social capital, and health behaviors and health conditions. Applying SEM to 9880 adults (aged between 18 and 100) in the 2008 Southeastern Pennsylvania Household Health Survey, we not only confirmed the positive and direct association between discrimination and poor or fair SRH, but also verified two underlying mechanisms: 1) perceived discrimination is associated with lower neighborhood social capital, which further contributes to poor or fair SRH; and 2) perceived discrimination is related to risky behaviors (e.g., reduced physical activity and sleep quality, and intensified smoking) that lead to worse health conditions, and then result in poor or fair SRH. Moreover, we found that perceived discrimination is negatively associated with health care system distrust, but did not find a significant relationship between distrust and poor or fair SRH.

Introduction

Racial discrimination can occur in all aspects of life and could be generally classified into two types: interpersonal and institutional discrimination (National Research Council, 2004). The former refers to an individual's discriminatory behaviors against people of minority groups, which can be directly perceived (e.g., verbal abuse or physical attack). The latter indicates the discriminatory actions embedded in social structures and may not be visible, such as policies, norms, and practices that lead to either unintended or intended unequal access to resources and power across racial groups. Wellman (2007) suggested that racial discrimination could be regarded as a process where Whites accumulate resources at the expense of other minorities, and is related to the superior White race framing (Feagin, 2009). Although in the past few decades, interpersonal discrimination in the United States has been declined, the white-oriented norms or decision-making embedded in social organizations or institutions may pass on the so-called "white privilege" (Flagg, 1993; Wellman, 2007). That is, despite the Civil Rights Act of 1964, racism/discrimination has not disappeared. Instead, racial discrimination has been hidden or transformed into other subtle existence (Quillian, 2006).

Following the transformation in racial discrimination, it is difficult to precisely detect and/or measure discrimination. Audit studies have been argued to be the most appropriate approach to measure discrimination (Bertrand & Mullainathan, 2004). However, the audit method has its limitations (Heckman & Siegelman, 1993) and may not be applicable particularly when collecting observational data (Quillian, 2006). In this study, we do not attempt to fully capture or measure the discrimination behaviors that an individual may encounter. Instead, we endeavor to understand if the subjective discriminatory experience has negative implications for an individual's health. The underlying assumption of this study is that an individual's well-being is subject to his/her life experience.

Our assumption above follows recent research that focused on an individual's experience with discriminatory actions (i.e., perceived discrimination) (Acevedo-Garcia, Rosenfeld, Hardy, McArdle, & Osypuk, 2013; Karlsen & Nazroo, 2002; Larson, Gillies, Howard, & Coffin, 2007). The negative consequences of perceived discrimination have been identified in the housing market (Pager &

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Shepherd, 2008), and health care (Griffith et al., 2007). Lately, the focus has shifted to the exploration of how perceived racial discrimination affects individual health outcomes. For example, it has been found that people who experienced racial discrimination are more likely to engage in risky behaviors (Pascoe & Richman, 2009) and to have more depressive symptoms (Schulz et al., 2006) and higher blood pressure (Karlsen & Nazroo, 2002) in contrast to their counterparts without perceived discrimination. The relationships between perceived discrimination and a range of health measures hold even after controlling for individual sociodemographic features (Harris et al., 2006). Extending from these recent studies, this study aims to investigate the association between perceived discrimination and self-rated health (SRH), a powerful predictor for future mortality and/or occurrence of diseases (Idler & Benyamini, 1997; Jylhä, 2009).

Almost a decade ago, several scholars strongly encouraged the studies that explicitly examine the association between SRH and racial discrimination (Boardman, 2004; Williams, Neighbors, & Jackson, 2003). Many research projects, since then, have reported that poor or fair SRH is associated with perceived racial discrimination (Borrell, Kiefe, Williams, Diez-Rouxc, & Gordon-Larsend, 2006; Chae & Walters, 2009; Larson et al., 2007; Schulz et al., 2006) with few exceptions (Krieger, Kosheleva, Waterman, Chen, & Koenen, 2011). Although these studies generally established the relationship between perceived discrimination and SRH, the etiologic mechanisms through which perceived discrimination affects SRH remains underexplored (Borrell et al., 2006). The goal of this study is to fill this gap by proposing and examining a conceptual framework that explains how racial discrimination is related to SRH.

The conceptual framework of this study is basically built upon two recent knowledge streams related to discrimination. The first is focused on *health care system distrust that is related to institutional discrimination.* As discussed previously, discrimination may exist in organizations or institutions. For example, Gee (2002) found that discrimination against Chinese Americans among loan associations negatively affected minority health. A study further showed that the knowledge of institutional discrimination (e.g., Tuskegee Study) increase the distrust of the health care system (Shavers, Lynch, & Burmeister, 2002). A recent report has shown that experiencing discriminatory behaviors was positively related to individual health care system distrust (Armstrong et al., 2013). Based on these findings, we argued that perceived discrimination would further exacerbate distrust.

Furthermore, the literature on the determinants of SRH has suggested that a high level of health care system distrust is related to poor or fair SRH, net of other explanatory covariates such as education, poverty status, and neighborhood social conditions (Armstrong et al., 2006; Mohseni & Lindstrom, 2007; Yang, Matthews, & Shoff, 2011). One explanation is that people with high health care system distrust tend to be less likely to seek medical advice, to adhere to medication, or to utilize preventive health services than those with low levels of distrust (LaVeist, Isaac, & Williams, 2009; Musa, Schulz, Harris, Silverman, & Thomas, 2009; Yang & Matthews, 2012). The lack of these health behaviors may contribute to the assessment of poor or fair overall health status. Coupled with the fact that discrimination is positively associated with distrust, one proposed mechanism from discrimination to SRH is that perceived discrimination first increases health care system distrust and then leads to a poor or fair SRH.

The second pathway emphasizes the role of *social capital that is associated with interpersonal discrimination*. As demonstrated in the literature (Finch, Hummer, Kol, & Vega, 2001; Karlsen & Nazroo, 2002; Larson et al., 2007; Schulz et al., 2006), perceived interpersonal discrimination is a major source of depression and a barrier to health. More explicitly, perceived discrimination would not only affect an individual's health but also influence his/her social interactions. Note that the concept of social capital could be operationalized as an ecological factor (Putnam, 2000) or an individual's asset (Lin, 1999). The former has been widely used in health research but relatively little attention has been paid to the latter (Song, Son, & Lin, 2010). In this study, we adopted the individual perspective as perceived discrimination may directly affect an individual's social behaviors. When an individual experiences discriminatory behaviors, s/he may tend to limit her/his social interactions with others to avoid the recurrence of racial discrimination, which may in turn constrain her/his social involvement and lead to reduced social capital. Another potential explanation is that when experiencing racial discrimination, individuals may seek social support from her/his social network to cope with stress, which is a type of taxing resources and may not be recovered (Folkman, Lazarus, Gruen, & DeLongis, 1986). As a result, an individual's social capital may be decreased due to racial discrimination. When one has a reduced social capital, s/he may have insufficient support to maintain a good health status (Fujiwara & Kawachi, 2008; Nieminen et al., 2010). Therefore, we propose that perceived discrimination would sabotage an individual's social capital because of the minimized social interactions or over-taxing of existing resources/social support. Consequently, the reduced social capital may lead an individual to report poor or fair overall self-rated health.

Conceptual framework and hypotheses

Built around the two mechanisms above, the conceptual framework of this study is demonstrated in Fig. 1. In addition to the four major variables discussed previously (i.e., discrimination, health care system distrust, social capital, and SRH), we include an individual's sociodemographic characteristics, health behaviors, and health conditions into the framework. The variables in rectangles indicate manifest variables; whereas those in ovals are latent variables. We further explain why these variables are important in this study as follows.

Sociodemographic characteristics have been argued to be fundamental determinants of health (Link & Phelan, 1995; Rogers, Hummer, & Nam, 1999). Specific to SRH, factors such as low educational attainment, poverty, and low income are all associated with poor or fair SRH (Nieminen et al., 2010; Yang et al., 2011). Having a partner or being at the early stage of the life course increases the likelihood of reporting better SRH in contrast to those without a partner or old (Subramanian, Kim, & Kawachi, 2005). As these sociodemographic characteristics are associated with all aspects of life, we include them to control for the potential confounding effects of these factors on other concepts in the framework.

Furthermore, an individual's health behaviors, such as diet and physical activity, may be related to discrimination. Specifically, societal discrimination may lead minority groups to live in the residential areas with limited access to public services or quality living environments (Nazroo, 1998), which in turn discourages healthy behaviors. For example, smoking and substance use are more prevalent among people who perceived discrimination than those who did not (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Landrine & Klonoff, 2000). Discrimination, as a stressor, will also induce poor sleep quality and physical fatigue (Thomas, Bardwell, Ancoli-Israel, & Dimsdale, 2006). These findings suggest that in order to have a clear picture of whether discrimination is associated with SRH, it is crucial to consider health behaviors in the analysis.