INTRODUCTION

Introduction to the Special Issue Disparities in Cardiovascular Health: Examining the Contributions of Social and Behavioral Factors

John M. Ruiz
University of Arizona

Elizabeth Brondolo
St. John’s University

Cardiovascular disease (CVD) is the leading cause of disability and death in the United States, accounting for 31.3% of all deaths in a given year (Mozaffarian et al., 2016). Importantly, risk factors for CVD, the incidence of CVD, and adverse outcomes associated with CVD are not experienced equally by all segments of society. Although there are variations depending on the specific cardiovascular condition, robust surveillance data document significant disparities in overall disease burden by race, ethnicity, and socioeconomic status (SES). Until recently, knowledge of these disparities has been largely epidemiological in nature. These epidemiological studies were critical to the development of national priorities to reduce health disparities (U.S. Department of Health & Human Services, 2011) exemplified by specific mandates in the Affordable Care Act, Healthy People 2010, Public Health Care Law 106–525, and the establishment of the National Institute of Minority Health and Health Disparities.

Advances in psychological science are now helping to elucidate the causal pathways underlying health disparities. Researchers have identified a wide range of psychosocial and environmental variables that serve as potential drivers of racial, ethnic, and social class disparities in CVD. Some of these variables reflect directly perceived threats to health, including those associated with discrimination or childhood adversity. Others variables (e.g., crowding or pollution) emerge from social and environmental disadvantage, and these variables may influence health behavior even without the individual’s conscious awareness. Studies of the relationship among the social and interpersonal environment, individual level psychological and biological stress responses, and health are guided by biopsychosocial models of the determinants of health status. In many instances this research benefits from multidisciplinary team science. Collectively, this research raises questions about how socioeconomic position, social lives, and thoughts, feelings and behaviors contribute to cardiovascular risk and outcomes; questions that psychologists are particularly well-qualified to help answer.

We offer this special issue as an opportunity to highlight contributions of health psychology to the understanding of disparities in cardiovascular health. The papers published in this issue were solicited through an open call and selected through fit with the theme, peer-review, and breadth of perspectives broadly defined. In many instances, the final versions represent a strong collaboration between investigators, peer-reviewers, and editors.

The 12 papers published here include eight full manuscripts, two brief reports, and two invited commentaries. Sampling in these studies is largely restricted to healthy adults, with one paper focused on early life adversity and subsequent health in adolescents and a second examining social support in adolescence as a predictor of CVD risk in adulthood. These papers offer windows into cutting-edge themes, methodologies, challenges, and future directions in understanding psychosocial factors and sociocultural sequelae as they relate to cardiovascular health disparities. Examined together, the papers begin to elucidate the ways in which the social context drives biopsychological processes that contribute to cardiovascular health disparities. Below we highlight the key conceptual issues that arose from these papers.

Investigating Intersectionality

A primary focus of this special issue concerns the role of stress in health disparities, with a special emphasis on discrimination-related stress. Four of the papers in this volume test the hypothesis that there are sociodemographic variations in the effects of discrimination on cardiovascular health (see papers led by Peterson, Matthews, Derby, Bromberger, & Thurston, 2016; Tomfohr, Pung, & Dimsdale, 2016; Beatty Moody et al., 2016; Kershaw et al., 2016). These studies can be understood within the context of intersectionality theory (Cole, 2009), which suggests that an individual’s lived experiences of discrimination may depend on their social status across a variety of dimensions, such as age, race, gender, or nativity.

Sociodemographic factors may increase (or decrease) exposure to discrimination and other stressors. Sociodemographic factors may also be associated with resources that might mitigate (or exacerbate) some of the effects of discrimination. For example, socioeconomic status and race may influence the degree to which individuals feel free to express objections to discrimination or believe they must accept injustice, at least temporarily (e.g., Krieger...
Managing另一方的 NICU 经历可能有以下影响：

1. DEPLOYS 在 NICU 的经历可能引起负面情绪，如焦虑、悲伤或抑郁。这可能对家庭成员的心理健康产生长期影响。

2. 父母的经济状况、教育水平以及社会关系可能影响他们应对 NICU 经历的能力。例如，社会支持水平较低的父母可能更难应对 NICU 经历。
health. And these data can guide the development of targeted interventions.

**Ethical Issues in Disparities Research**

One of the ethical questions raised by disparities research is whether a focus on race generates more benefit than harm. Researchers documenting racial disparities intended to draw attention to the injustice inherent in the disparate conditions under which individuals of different races live. And yet, as we have spelled out the harsh reality facing stigmatized minority groups, have we in fact further stigmatized members of these groups? When data document significant disadvantages for one group, we may inadvertently increase the focus on phenotypic characteristics, and increase the isolation of group members. Our intent may be to shine a light on injustice. But that may not be our only effect. As commentators Benn and Goldfeld (2016, pp. 403–406) suggest, it is important to build models and conduct research that focuses on modifiable drivers of health outcomes.

**Omissions and Future Directions**

The open call approach to assembling this special issue yielded excellent examples of cutting-edge research, including topics that we had not previously considered. However, an important limitation associated with this method concerns breadth of coverage or the potential for some key issues to not be represented. These omissions are important to note as they may reflect areas of need and future directions. For example, the majority of the papers we received focused on aspects of coronary heart disease or CVD risk factors (e.g., discrimination, stress) and markers (e.g., inflammation) more broadly. In contrast, we received only one submission investigating stroke risk and none examining other specific forms of CVD such as heart failure or arrhythmias. These differences likely reflect the broader state of psychosocial investigations in CVD where deeper inroads have been made in the study of CHD relative to other forms of the disease. And although CHD accounts for nearly half of all CVD (Mozaffarian et al., 2016), those other forms represent a significant public health challenge and an important direction for future psychosocial disparities research.

The submissions were also largely constrained to examining disease risk in healthy samples with very few submissions focused on clinical populations. Again, this may reflect the state of psychosocial-CVD research as more focused on determinants of disease development and mortality with less work in the area of disease course. However, we should be cognizant that the impact of a given factor may vary as a function of that course. For example, evidence increasingly supports an association between perceived discrimination and CHD incidence and mortality risk. But this effect does not mean that perceived discrimination also connotes a similar degree of risk on disease progression, is a causal, proximal determinant of acute events such as MI, or influences rate of recovery following common procedures such as coronary artery bypass grafting or stenting. It is also possible that the impact of perceived discrimination varies by CVD type, by racial/ethnic group, and by sex and is further moderated by a host of psychosocial, cultural, environmental, and resource factors. This complexity along with broader issues of intersectionality underscore the need for new models and for a roadmap to document current knowledge and direct next steps.

Resilience itself is not clearly represented in these studies. Social support and other factors continue to exert influence as part of the biopsychosocial and social-ecological systems. These factors may not only buffer risk but create unexpected advantages. For example, Latinos have some of the greatest relative CVD risk factor burden including high rates of obesity, diabetes, dyslipidemia, and undiagnosed or controlled hypertension coupled with significant socioeconomic disparities. Conversely, robust evidence including annual American Heart Association reports (Mozaffarian et al., 2016) and two recent meta-analyses (Cortes-Bergoderi et al., 2013; Ruiz, Steffen, & Smith, 2013) document that Latinos experience significant advantages in CVD prevalence and mortality compared to non-Hispanics. These paradoxical outcomes are driving speculation that cultural factors are moderating social systems as a resilience pathway to offset risk (Balfour, Ruiz, Talavera, Allison, & Rodriguez, in press; Gallo, Penedo, de los Monteros, & Arguelles, 2009; Ruiz, Hamann, Mehl, & O’Conner, in press). Regardless of the specific mechanism, the study of resilience in the context of disadvantage is likely to emerge as an important topic going forward.

**Going Forward**

A recent paper by Ma and colleagues (2015) published in JAMA reports that although death is inevitable, we are making incredible improvement in reducing premature death. This analysis includes the observation that death from CVD has dropped nearly 68% over the past 45 years (1969–2013). It is probably not a coincidence that the field of health psychology was born and has evolved significantly during this time frame and likely contributed to these advances through improved understanding of biopsychosocial relationships. Importantly, we must ensure that these improvements in cardiovascular health are realized for all. Knowledge can help guide meaningful interventions to reduce disparities and help people from being victimized by forces that are not under their immediate control. Thus, we hope this special issue informs and serves as a catalyst for future work.

**References**


Cortes-Bergoderi, M., Goel, K., Murad, M. H., Allison, T., Somers, V. K., Erwin, P. J., . . . Lopez-Jimenez, F. (2013). Cardiovascular mortality in...


Received February 5, 2016
Revision received February 8, 2016
Accepted February 9, 2016