

# Prevalence of cardiovascular risk factors among racial and ethnic minorities with schizophrenia spectrum and bipolar disorders: a critical literature review

Hannah Carliner<sup>a,\*</sup>, Pamela Y. Collins<sup>b</sup>, Leopoldo J. Cabassa<sup>c,d,e</sup>, Ann McNallen<sup>f</sup>, Sarah S. Joestl<sup>g</sup>, Roberto Lewis-Fernández<sup>c,d,h</sup>

<sup>a</sup>Department of Social and Behavioral Sciences, Harvard School of Public Health, Boston, MA, USA

<sup>b</sup>Office for Research on Disparities and Global Mental Health, National Institute of Mental Health/NIH, Bethesda, MD, USA

<sup>c</sup>Department of Psychiatry, Columbia University, New York, NY, USA

<sup>d</sup>New York State Center of Excellence for Cultural Competence, New York State Psychiatric Institute, New York, NY, USA

<sup>e</sup>Columbia University School of Social Work, New York, NY, USA

<sup>f</sup>Department of Population and Family Health, Mailman School of Public Health, Columbia University, New York, NY, USA

<sup>g</sup>Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY, USA

<sup>h</sup>Hispanic Treatment Program, New York State Psychiatric Institute, New York, NY, USA

## Abstract

**Objective:** People with serious mental illness (SMI) die at least 11 years earlier than the general U.S. population, on average, due largely to cardiovascular disease (CVD). Disparities in CVD morbidity and mortality also occur among some U.S. racial and ethnic minorities. The combined effect of race/ethnicity and SMI on CVD-related risk factors, however, remains unclear. To address this gap, we conducted a critical literature review of studies assessing the prevalence of CVD risk factors (overweight/obesity, diabetes mellitus, metabolic syndrome, hypercholesterolemia, hypertension, cigarette smoking, and physical inactivity) among U.S. racial/ethnic groups with schizophrenia-spectrum and bipolar disorders.

**Methods and Results:** We searched MEDLINE and PsycINFO for articles published between 1986 and 2013. The search ultimately yielded 40 articles. There was great variation in sampling, methodology, and study populations. Results were mixed, though there was some evidence for increased risk for obesity and diabetes mellitus among African Americans, and to a lesser degree for Hispanics, compared to non-Hispanic Whites. Sex emerged as an important possible effect modifier of risk, as women had higher CVD risk among all racial/ethnic subgroups where stratified analyses were reported.

**Conclusions:** Compared to general population estimates, there was some evidence for an additive risk for CVD risk factors among racial/ethnic minorities with SMI. Future studies should include longitudinal assessment, stratification by sex, subgroup analyses to clarify the mechanisms leading to potentially elevated risk, and the evaluation of culturally appropriate interventions to eliminate the extra burden of disease in this population.

© 2014 Elsevier Inc. All rights reserved.

## 1. Introduction

People with mental illness die on average eight years earlier than the general U.S. population [1]. Life expectancy for people with psychotic disorders (e.g. schizophrenia) is even lower, at 63.4 years, a difference of 11 years of average

life expectancy [1]. Studies using clinical samples of people with serious mental illness (SMI; e.g., schizophrenia and bipolar disorder) receiving services in the public mental health system [2] or participants with lower socioeconomic position find even greater disparities in mortality — as great as 25 years difference [1,3,4]. Much of the difference in mortality rates is attributed to cardiovascular, cerebrovascular, and pulmonary diseases. Paralleling the leading cause of death in the general U.S. population, cardiovascular disease (CVD) is the leading cause of death among public mental

\* Corresponding author. Tel.: +1 617 432 1135.

E-mail address: [hearliner@mail.harvard.edu](mailto:hearliner@mail.harvard.edu) (H. Carliner).

health clients [4]. People with schizophrenia have 2.3 times the standardized mortality rate for CVD [3] and a 34% higher mortality following hospitalization for a myocardial infarction [5,6] than the general population.

According to the Centers for Disease Control and Prevention (CDC), major risk factors for CVD include overweight/obesity/diet, diabetes mellitus, elevated cholesterol, hypertension, current cigarette smoking, and physical inactivity [7,8]. Metabolic syndrome (MS) is also considered a risk factor for CVD both independently and because its symptoms overlap with these risk factors [9]. People with schizophrenia-spectrum disorders (SSD), bipolar disorder (BD), and other SMI have higher rates of many of these CVD risk factors than the general U.S. population — in the range of 1.5 to 2 times the population prevalence of diabetes, dyslipidemia, hypertension, and obesity [6].

The marked morbidity and mortality among people with SMI associated with these CVD risk factors stem from several causes. These include adverse effects of antipsychotic medications [3,10], reduced access to preventive health services and to high-quality medical care due to financial and structural barriers [11,12], disease-related harmful health behaviors [13], and health care professionals' mistaken belief that patients with SMI are incapable of achieving physical health and wellness [14,15]. Furthermore, people with SMI may be more likely to refuse care [3], less likely to properly adhere to prescribed treatment regimens [16], and less capable of articulating symptoms [17] than those without mental illness. All of these factors may create an increased burden of CVD and premature mortality among people with SMI despite the improved adherence to medical treatment for comorbidities that may result from frequent use of mental health services [18,19].

Similar disparities in morbidity and mortality due to CVD and its associated risk factors occur among racial and ethnic minority groups in the U.S. African Americans, Hispanics, and American Indians have higher rates of CVD and shorter life expectancies compared with non-Hispanic Whites [20–22]. African Americans show higher rates of age-adjusted heart disease and diabetes-related deaths, overweight or obesity (among women), physical inactivity, diabetes, and hypertension than Whites [21,23–26]. Hispanics and American Indians/Alaska Natives also have higher rates of overweight or obesity, physical inactivity, and age-adjusted diabetes than Whites [26–28]. Many of these risk factors also vary by sex within these racial/ethnic groupings [8,20–22,25]. For example, in nationally-representative samples, prevalence of obesity is higher among women compared to men for Whites, African Americans, and Mexican Americans, in some cases by as much as 20%; however, the size of this sex difference varies by race/ethnicity and education [21]. Sex and gender are therefore important biological, social, and cultural covariates to include in risk assessments of CVD [29].

The elevated risk for higher CVD-related morbidity and mortality in racial/ethnic minority populations in the U.S. is

likely due to many intersecting causes, such as genetic and epigenetic factors [30–32], physiological stress responses secondary to racism and discrimination [33,34], reduced access to preventive health services [35], adverse migration-related factors [35], worse health education [36], limited culturally competent health care [37], stress-induced harmful health behaviors [38], predisposing neighborhood factors [39], structural and financial limitations on positive health behaviors [40], lower socioeconomic position [33,35], and cultural characteristics affecting diet [41], among others [35].

For racial/ethnic minorities who also have SSD or BD, it is therefore possible that their CVD-related outcomes are even worse than minorities in the general population, or than majority Whites with these psychiatric disorders. Theoretical justification for the proposition of a double burden of risk due to race/ethnicity and psychiatric diagnosis, for CVD is based on the following factors: [1] the obesogenic and diabetogenic effects of antipsychotic medications may be intensified by yet unknown biological factors in some racial/ethnic sub-groups [42]; (2) poorer communication between healthcare providers and their racial/ethnic minority patients, relative to White patients, may be exacerbated by social and cognitive deficits associated with SSD and BD, resulting in poorer quality treatment and less access to preventive interventions [43,44]; (3) patients' mistrust of the medical system due to past experiences of racism and well-documented unethical practices may interact with stigmatization of mental illness on the side of providers and with the symptoms of SSD or BD on the side of patients, thus preventing the strong patient-provider relationship needed for successful treatment [43]; (4) the widespread lack of health services and culturally-appropriate care in poor and minority neighborhoods may lead to even worse access to care among patients with SMI [3,11]; and (5) navigating the fragmented physical and mental healthcare systems may be even harder for individuals facing the combination of discrimination due to their race/ethnicity and disability and miscommunication due to their psychiatric condition [14,43].

Given the limited research in this area, it is unclear whether there actually is a double burden of risk for CVD associated with race/ethnicity and psychiatric illness. Furthermore, it remains unclear whether prevalence of CVD and its risk factors is higher among racial/ethnic minorities with SSD and BD compared to non-Hispanic Whites with the same disorders. To begin to fill this gap, and in line with consensus statement recommendations of experts [10], we conducted a literature review to (1) quantify the number of research papers published between 1986 and 2013 that examine the association between CVD risk factors, racial and ethnic minority status, and diagnosis of schizophrenia-spectrum and bipolar disorders; and (2) document the prevalence of CVD risk factors among racial and ethnic minorities with these psychiatric disorders, in order to assess

Download English Version:

<https://daneshyari.com/en/article/317542>

Download Persian Version:

<https://daneshyari.com/article/317542>

[Daneshyari.com](https://daneshyari.com)