Poor or Fair Health and Depression in Black Women

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Abstract

Several studies have identified a relationship between an individual's health status and the presence of depression. The current study aims to examine this relationship in Black women. Using data from the 1999-2013 Panel Study on Income Dynamics, I observed that self-reported poor health, fair health, income below 200 percent of the poverty line, and younger age significantly increased the likelihood of depression. This study supports the argument that physical health and depression are related, and calls for public health action to address this issue, especially among underserved Black women.

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Introduction

According to the U.S. Department of Health and Human Services (2015), depression is one of the most common mental disorders in the United States and is more common in women than in men. Carr, Szymanski, Taha, West, and Kaslow (2013) report that 13.85% of African American women are diagnosed with depression throughout their lifetime, though depression is believed to be highly under diagnosed in this population. In addition, Carr et al. (2013) assess the multiple and intersecting forms of oppression linked to depression that African American women experience, including sexual objectification, racist events, gendered racism, and internalization. Those who are of lower socioeconomic status are at increased risk for trauma and disparities in resources and experience even higher risk for depression (Carr et al., 2013).

African Americans also experience significant health disparities, a factor believed to be related to depression. Wilson-Frederick, Chinn, Ejike-King, and Dorsey (2015) examine Black women's "vastly different morbidity and mortality profiles relative to other racial and ethnic U.S. populations" and report that they experience the highest rates of hypertension and obesity among racial or sex groups (p. 1). Poor health and depression have been found to be positively related in a number of studies. Chronic or disabling medical conditions, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) increase risk for major depressive episodes (American Psychiatric Association, 2013). Depressive episodes often complicate common illnesses, including diabetes, obesity, and cardiovascular disease; these episodes tend to be more chronic than those in physically healthy individuals (American Psychiatric Association, 2013). Though the relationship between poor health and depression appears to go both ways, current literature seems to focus on exploring the effects of depression

on health status but not how health status influences depression. Further research is needed to illuminate the extent to which this relationship exists.

Jones (2008) argues that more research on Black women and mental health is also urgently needed, writing, "the paucity of treatment outcome studies involving Black women makes it difficult to draw conclusions about the effectiveness of treatment" (p. 627). Clarifying a relationship between health and depression and effectively supporting the currently underserved community of Black women with depression will contribute to more effective practice and should be a priority for all relevant agencies and social workers. Major implications may include a call for better integration between physical and mental healthcare and appropriate and accessible services to support physical health among Black women with depression.

Literature Review

Poverty and Depression

Individuals living in poverty are known to experience high rates of depression, with depression rates for poor women ranging from 42 to 60 percent (Ali, Hawkins, & Chambers, 2010). Participation in a six month program designed to transition individuals out of poverty through microlending and peer support was found to be associated with reduced levels of depression, though participants benefited from social support in addition to financial support (Ali, Hawkins, & Chambers, 2010). Living in a low-income area can also be a risk factor for depression. Neighborhood poverty, as well as neighborhood violence, was found to be associated with depression in older adults aged 65 to 75 (Joshi et al., 2017).

Childhood Poverty and Depression

Trauma stemming from childhood poverty can have lasting effects on an individual's mental health into adulthood. Childhood family financial adversity was found to be associated

with mood disorder onset at all life-course stages, and low parental education was associated with mood disorder severity (McLaughlin et al., 2011). Interestingly, Green et al. (2012) found persistent poverty throughout childhood, as assessed at first grade and adolescence, to be associated with adult depression in urban African American men but not women. Risk factors for women included family conflict in adolescence, low maternal aspirations for school attainment, more aggressive and delinquent behavior, growing up in a female-headed household, and growing up in a household with low maternal education. Low parental educational should therefore be considered separately from childhood poverty.

Childhood Psychopathology and Adult Depression

Childhood poverty can contribute to childhood psychopathology, which can in turn contribute to depression in adulthood. Family poverty was found to be associated with depressive symptoms in 11-13 year olds, explained in part by the greater likelihood that children in low income families are exposed to stressful life events, experience parental divorce or separation and lower levels of parental support, and reside in lower-income and higher-crime neighborhoods (Tracy, Zimmerman, Galea, McCauley, & Stoep, 2008). Childhood psychopathology, specifically externalizing symptoms such as aggression and conduct problems, was found to be associated with adult depression (Loth, Drabick, Leibenluft, & Hulvershorn, 2014).

Physical Health and Depression

Depression has been found in many studies to negatively affect physical health. Type 2 diabetes and rheumatoid arthritis are two common conditions found to significantly worsened by the presence of depression. In those with type 2 diabetes, recurrent subthreshold depressive episodes were found to be associated with worse functioning and health-related quality of life

(Schmitz et al., 2014). In those with rheumatoid arthritis, depression was found to be associated with worse physical health outcomes (Matcham, Rayner, Steer, & Hotopf, 2013). Anhedonia, or lack of positive affect, was found to moderate the effectiveness of cardiac rehabilitation on health status and somatic and cognitive symptoms in patients with coronary artery disease, another common physical health condition (Pelle et al., 2010). Additionally, depression was found to be linked with physical health decline in those caring for a family member with cancer (Wise, 2017).

While depression's deleterious effects on physical health are well established, far fewer studies have investigated physical health's effects on depression. Chronic physical health problems have been found to moderate improvements in depression and substance use among individuals with dual diagnoses of mental illness and a substance use disorder during and in the year following treatment (Cui, Tate, Cummins, Skidmore, & Brown, 2015). Physical health and depression have also been studied as related dependent variables. Exercise therapy has been found to improve both physical and mental health in patients with diagnosed with major depression (Knapen, Vancampfort, Morien, & Marchal, 2014).

Methodology

Data Source

Beginning in 1968, the Panel Study on Income Dynamics (PSID) is a longitudinal data set of families and individuals in the United States. It includes large samples of poor populations, with data weighted in order to make it representative of the U.S. population. Collected data includes extensive information on health status, income, and childhood circumstances. For the purpose of this study, analysis was restricted to data from 1999 to 2013 that was assembled and programmed by Thomas Vartanian. All statistical analysis, including obtaining descriptive

statistics and performing logistic regression, was conducted using SPSS software. The raw data from the SPSS analysis is available in the attachment.

Hypotheses

In this research, I will focus primarily on the relationship between poor or fair current health and depression among Black women, where I predict that Black women who rated themselves as having poor or fair health will be more likely to be depressed compared to those who rated themselves as having good, very good, or excellent health.

I also expect to observe increased likelihood between depression and the following variables poor economic status while growing up relative to higher economic statuses and income below the poverty line, income below 150 percent of the poverty line, and income below 200 percent of the poverty line compared to those above these thresholds.

Analytic Methods

A binary logistic regression was used in this analysis as the dependent variable is a nominal level variable. Both descriptive and regression results were obtained using SPSS software.

Results

Descriptive statistics for can be found in table 1. The sample consists of a subsample drawn from the PSID and includes 2,095 Black women. Twenty five percent of sample members reported feeling bad, specifically sad, nervous, restless, hopeless, worthless, or "that everything is an effort," most days. Mean age was 46.59 with a standard deviation of 14.234, and mean for childhood years with depression was .08 with a standard deviation of .899. Six percent of the sample reported poor health, and 18 percent reported fair health. Thirty-seven percent of the sample grew up poor, and 26 percent reported neither parent graduated from high school.

Twenty-six percent of the sample was in poverty, 39 percent was below 150 percent of the poverty line, and 52 percent was below 200 percent of the poverty line.

Table 1: Means and Standard Deviations

Variable Description	Mean (SD)
feelingbadmostdays13 (DV)	.25
poorhealth13	.06
fairhealth13	.18
age13	46.59 (14.234)
gupoor13	.37
parentdropout	.26
depressiontotal09a	.08 (.899)
pov13	.26
pov15013	.39
pov213	.52

Logistic regression results are displayed in table 2. According to Cox & Snell R-Square, 7.8 percent of the variation in feeling bad most days is explained by the model, while the Nagelkerke R-Square indicates that 11.6 percent of the variation is explained by the model. The model is significant at all levels.

No statistically significant relationship was identified between the following independent variables and feeling bad most days: having grown up poor compared to those who did not grow up poor, having parents who dropped out of high school compared to having parents who did not drop out, time during childhood with depression, being in poverty compared to those not in

poverty, and having income below 150 percent of the poverty line compared to those who have income above 150 percent of the poverty line. These variables do not increase the likelihood of feeling bad most days.

This model predicts an individual in poor health is 209.8 percent more likely to feel bad most days compared to those who are in good, very good, or excellent health, controlling for all other variables in the model. This is significant at all levels. The model predicts an individual in fair health is 83.1 percent more likely to feel bad most days compared to those who are in good, very good, or excellent health, controlling for all other variables in the model. This is significant at all levels. The model predicts an individual below 200 percent of the poverty line is 47.2 percent more likely to feel bad most days compared to those who are above 200 percent of the poverty line, controlling for all other variables in the model. This is significant at the 0.05 level. For each additional year of age, the model predicts an individual is 3 percent less likely to feel bad most days controlling for all other variables in the model. This is significant at all levels.

Table 2: Logistic Regression with Dependent Variable: Feeling Bad Most Days

Variable	B (SE)	Odds Ratio or Exp (B)
poorhealth13	1.131 (.217)	3.098***
fairhealth13	.605 (.134)	1.831***
age13	-.030 (.004)	.970***
gupoor13	.008 (.116)	1.008
parentdropout	.034 (.132)	1.034
depressiontotal09a	.030 (.053)	1.030
pov13	.190 (.161)	1.209
pov15013	.355 (.199)	1.427

pov213	.387 (.172)	1.472*
Intercept (Constant)	-.385 (.199)	.680
R-square, Cox & Snell=.078		
R-square, Nagelkerke=.116		
N=2095		

Note: *p<0.05, **p<0.01, ***p<0.001.

Discussion

My primary hypothesis, that Black women who rated themselves as having poor or fair health will be more likely to be depressed compared to those who rated themselves as having good, very good, or excellent health, was supported. Those with poor health were found to be more likely to be depressed than those with fair health, which is logical. Interestingly, for income, only the hypothesis that Black women below 200 percent of the poverty line will be more likely to be depressed compared to those who are not below 200 percent of the poverty line was supported. Being in poverty or below 150 percent of the poverty line was not found to be associated with higher rates of depression compared to reference groups. This is surprising, as it contradicts previous research showing a relationship between poverty and depression (Ali, Hawkins, & Chambers, 2010; Joshi et al., 2017). It is made even more surprising by the fact that the way depression was operationalized, asking study participants about how they have felt during the last 30 days, seems ideal for capturing those who are depressed but do not have a depression diagnosis due to lack of access to care.

The relationship between poor or fair health and depression in Black women is much more troubling due to the significant health disparities experienced by Black women, as well as the under diagnosis, and therefore lack of treatment, known to exist in this population (Wilson-

Frederick, Chinn, Ejike-King, & Dorsey, 2015; Carr et al., 2013). As noted by Jones (2008) above, much more research focused on Black women and mental health is needed. Other implications include support for improved access to physical and mental healthcare that is culturally appropriate and better integration between physical and mental healthcare.

One limitation of this study is that health status was self-reported without any quantitative health data. However, self-perception of health is clearly significant. Another limitation is a lack of survey data specifically asking about depression diagnosis, which could supplement the information provided by the data about feeling bad. Further research could explore depression as an independent variable and health status as a dependent variable to provide information on relationship directionality.

Conclusion

This study utilized Panel Study on Income Dynamics survey data to examine the relationship between health status and depression in Black women and found that self-reported poor health, fair health, income below 200 percent of the poverty line, and younger age significantly increase the likelihood of depression. These findings add to the literature and support the hypothesis that health status negatively impacts mental health in Black women. Public health implications are support for improved access to physical and mental healthcare that is culturally appropriate and better integration between physical and mental healthcare, especially among underserved Black women.

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