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Exploring the Association between Race and Health among Older Adults Who Are Incarcerated

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ABSTRACT

One of the little known ironies in the field of prison health is the notion that prison may actually have health-stabilizing effects for some groups. This study contributes to this line of inquiry by examining a variety of physical and mental health indicators among an older cohort of prisoners. Furthermore, this study's focus on race addresses a notable gap in the growing literature on older prisoner health. A cross-section of 625 males who were incarcerated residing in a northeastern state prison system was surveyed and data on self-reported health status and stress and individual demographics characteristics were collected. Univariate and multivariate logistic regressions were used to quantify racial differences with respect to self-reported stress after adjusting for potential confounders. Results suggest that Black men who are older and incarcerated appear to be more resilient than White men who are older. An association was found between race and self-reported stress though not statistically significant. Health status is a significant predictor of self-reported stress in univariate and multivariate analyses. Having ever committed a violent offense and having received mental health services (in and out patient) are statistically associated with self-reported stress. Black men who were older in this study appear to cope better with stress related to incarceration than White men who were older, which may in turn affect other physical and mental health outcomes. Future research is needed to address factors that stabilize health and reduce stress among a racially diverse, aging prison population.

KEYWORDS

Aging; race; prison; prisoners; health; stress; aging and public health

Introduction

A less explored phenomenon in the field of aging and prison health is the notion that prison may actually have health-stabilizing effects for some groups. For those individuals who are incarcerated who, for example, may have been at severe disadvantage previously, health issues may be identified and stabilized during incarceration (Schnittker & John, 2007). Prison mortality studies over the past few decades reveal several examples of lower all-cause mortality among individuals who are incarcerated after adjusting for age and race compared to the general population (Clavel, Benhamou, & Flamant, 1987; Fazel & Benning, 2006; Kim et al., 2007; Novick & Remmlinger, 1978; Salive, Smith, & Brewer, 1990).

When racial health disparities among individuals who are incarcerated are explored, differences are revealed between individuals who are incarcerated and populations who are not incarcerated (Kruger & De Loney, 2009). Once in prison, there is evidence for a reduction or reversal in the direction of health disparities, particularly between Blacks and Whites (Patterson, 2010). However, given the

over-representation of Black men in the prison population, the concept of reducing or reversing the direction of disparities between Whites and Blacks must be treated with caution. Nonetheless, some studies do support the racial shift in disparities when examining a variety of indicators such as mortality rates (Mumola, 2007; Patterson, 2010; Rosen, Hammond, Wohl, & Golin, 2012; Rosen, Wohl, & Schoenbach, 2011; Spaulding et al., 2011), rates of chronic illness (Harzke et al., 2010), mental health treatment seeking (Youman, Drapalski, Stuewig, Bagley, & Tangney, 2010), and mental and physical well-being (Merten, Bishop, & Williams, 2012).

As indicated in these prior studies, the mechanisms for positive or negative differences in health are complex, and evidence thereof is inconclusive because most studies have focused on the younger prisoner and may not include health conditions that become prevalent during midlife (e.g., Schnittker, Massoglia, & Uggen, 2011). For example, Schnittker and colleagues' (2011) review of the literature found evidence linking incarceration and health particularly among African Americans who also disproportionately experience justice disparities. Their major findings included that inmates generally suffer from worse health compared to their adult counterparts who are not institutionalized. This comparison also found that some of the strongest negative effects of incarceration emerge after release possibly due to postrelease ramifications (Schnittker et al., 2011). The current study builds upon this growing body of literature by examining a variety of physical and mental health indicators among an older cohort of prisoners. After obtaining the prevalence of physical and mental health outcomes of inmates in a state correctional system, the associations between race and self-reported stress were explored. It was hypothesized that race is associated with overall health, including self-reported stress, among this population. Research in this area fills an important gap in understanding the intersection of race and health among an older prison population who is incarcerated. These findings can be used to guide prevention, assessment, and intervention programs that promote health and well-being among elders in prison who are culturally diverse.

Literature review

The aging prison population

The prison system in America reflects the aging rates of the general U.S. population. Eight percent of inmates are age 55 and older; most are male (93%), disproportionately racial and ethnic minorities (46%), who come from lower socioeconomic backgrounds (Human Rights Watch [HRW], 2012; Maschi, Viola, & Sun, 2013; Sabol & Couture, 2008; Shimkus, 2004), and experience health disparities as a result of their backgrounds (American Civil Liberties Union, 2012; Massoglia, 2008). The rapid growth of those aging in prison has been attributed to the passage of stricter sentencing laws, such as "Three Strikes You're Out" and subsequent longer prison terms (HRW, 2012). The combination of high-risk personal histories (e.g., substance abuse, smoking, poor health histories, traumatic brain injury), coupled with stressful social and environmental conditions of confinement, have been found to "parallel those of other classic markers of socioeconomic status" resulting in additional disparities in health outcomes for racial/ethnic minorities (Massoglia, 2008; U.S. Department of Justice, Office of the Inspector General, 2015).

There is a dearth of research that addresses the needs of older adults in prison who are vulnerable and often neglected in correctional populations. As a natural part of the aging process, older adults in prisons have high rates of chronic illnesses or disabilities, such as heart and lung disease (Maschi & Baer, 2013; Mumola, 2007). Comorbid mental health and substance abuse issues are commonplace (James & Glaze, 2006) and access to appropriate medications while in prison is questionable (Williams et al., 2010). Perhaps the most significant issue is the accelerated decline in cognitive and functional capacities (Maschi, Kwak, Ko, & Morrissey, 2012; Williams, Goodwin, Baillargeon, Ahalt, & Walter, 2012). Poor health behaviors coupled with the prison environment place older adults at increased risk for age-related mental health problems, especially dementia (Wilson & Barboza, 2010). This may not seem surprising in light of extensive literature documenting poor health status among individuals who are incarcerated. Studies have shown that the prevalence of infectious diseases, particularly HIV and

Hepatitis C infection (HCV), as well as that of many chronic conditions (e.g., diabetes, high blood pressure, cholesterol levels) are substantially higher among the population who are incarcerated compared to the general population (Baillargeon et al., 2010; Binswanger, Krueger, & Steiner, 2009; Binswanger, Redmond, Steiner, & Hicks, 2010; Latimer et al., 2009; Wilper et al., 2009). Mental health and substance abuse problems are also pervasive (Baillargeon et al., 2010; Wilper et al., 2009).

It is often difficult to disentangle the relative contributions of preexisting conditions and criminal justice involvement on health outcomes among individuals who are incarcerated, especially when compared to the general population. Although Harzke and colleagues (2010) found that age-standardized prevalence estimates for selected chronic conditions among Texas inmates did not exceed those of the U.S. general population, results from the same study revealed that a high proportion of inmates were affected by co-occurring conditions. The effects of these conditions worsened with the increase in age. Other research suggests that inmates who are newly incarcerated present with a high prevalence of chronic medical and mental health issues, high rates of substance abuse and infectious disease, as well as a history of limited access to care. (Conklin, Lincoln, & Tuthill, 2009).

Racial inequalities in prison health outcomes

Racial inequalities in the U.S. general population have been well documented (Bobo & Thompson, 2010). Minority populations have less access to care, receive poorer quality of care, and experience worse health outcomes than Whites (Adler & Newman, 2002; Adler & Rehkopf, 2008; Groman & Ginsburg, 2004; Smedley, Stith, & Nelson, 2003). Binswanger et al. (2009) notes that though minorities experience more criminal justice involvement than Whites, “critical scientific gaps exist in our understanding of the relationship between the criminal justice system and the persistence of racial/ethnic health inequalities” (p. 1). The Sentencing Project (2013) notes that for Black males in their thirties, one in every 10 is in prison or jail on any given day. Black men have a lifetime likelihood of imprisonment of one in three, compared to one in 17 for White men. Black men are incarcerated at a rate 6.7 times the rate of White men (Guerino, Harrison, Sabol, & Couture, 2011).

Existing research suggests that incarceration may have a stabilizing effect on health and may therefore mitigate or reverse the direction of racial disparities in health. Mumola (2007) compared mortality rates for inmates in state prisons to those of the general population, showing that individuals who are incarcerated had overall lower death rates than individuals who are not incarcerated. Although White and Hispanic inmate mortality was slightly higher than the mortality rates of their counterparts in the general population, Blacks who are incarcerated had lower mortality than Blacks who are not incarcerated. Within state prisons, Black and Hispanic inmate mortality rates were similar, whereas White inmate mortality was 67% higher in comparison. Mumola’s study has been criticized for ignoring important differences in mortality between the sample and reference populations, including age and race differences (Patterson, 2010). Despite these criticisms, Mumola’s findings have been corroborated and expanded upon.

In a nationally representative sample, Rosen et al. (2012) found that Blacks who were incarcerated had less morbidity than Whites who were incarcerated. Moreover, racial differences in the use of health care were in the opposite direction of those observed in populations who are not incarcerated, meaning Black inmates were more likely to access prison services than their White counterparts. Using combined national and state correctional data and age-specific death rates for the U.S. population, Patterson (2010) likewise found a pattern of higher mortality among Whites and lower mortality among Blacks in the population who are incarcerated compared to the populations who are not incarcerated.

Despite the growing evidence for a reduction in racial health disparities among individuals who are incarcerated, there has been little empirical exploration of race having a moderating effect on an older prisoner population and a follow-up discourse as to why this phenomenon may exist. Suggested explanations for the health improvements experienced by Black inmates include more immediate access to institutionalized health care, more routine nutrition, a reduction of behavioral and

lifestyle risk factors, and a more structured environment that may be more conducive to disease self-management (Harzke et al., 2010; Patterson, 2012). Massoglia (2008), however, concluded that initially incarceration may have some mediating effects on Black–White health disparities, but nonetheless, in the long term, incarceration has a more negative impact on Black male physical health and thereby reestablishes preexisting racial disparities in health. Disproportionate rates of imprisonment and longer sentencing patterns are a major contributing factor in producing health problems in later life among Black inmates, including exposure to infectious diseases such as hepatitis and tuberculosis. However, in a different study, Massoglia (2006) reported that during interviews with male inmates in Minnesota, Black inmates' mental health was much less negatively affected by their incarceration experience than those of White inmates.

Few studies address racial health disparities among the older population who are incarcerated. In a recent study by Merten et al. (2012) of incarcerated males, age 45 to 80, Blacks reported less morbidity than their White counterparts. The suggested moderators for this finding were greater valuation of life, less loneliness, and lower levels of depressed mood among Black males. Allen et al. (2013) examined positive and negative religious coping among older inmates in Alabama, reporting that greater levels of positive religious coping was inversely related to levels of depression. In addition to emotional and spiritual health, these resources may include various types of services beyond institutionalized health care including recreation, education, and social support. In a review of the literature, Browning, Miller, and Spruance (2001) found that inmates who consistently received visits from relatives had better parole outcomes, whereas those with no visitors had higher rates of parole violation and recidivism.

Method

This cross-sectional study was based on a survey conducted in September 2010 in the New Jersey Department of Corrections (NJDOC). The sample consisted of 625 English speaking males age 50 and older who were incarcerated. Data was collected using a self-administered, mailed survey more fully described in Maschi, Viola, Morgen, and Koskinen (2015). The study was approved by the Fordham University Institutional Review Board and found to meet the criteria for vulnerable populations, such as older adults and prisoners.

The major outcome variable is self-reported stress, which is reflected in the response to the following question, “In the past month, how stressed have you felt while in prison?” Choices included *never*, *rarely*, *often*, *almost always*, and *always stressed*. In our analyses, the Likert-type scale was dichotomized as *never/rarely* and *often to always*. The potential association factors are age, race/ethnicity, and individual characteristics (see Table 1).

Health conditions and health status was measured using the Center for Disease Control Health Related Quality of Life Survey (CDC HRQOL-14, aka Healthy Days measure; U.S. Department of Health and Human Services [USDHHS], 2000). Health conditions consisted of a 15-item self-report subscale of health conditions. A composite of health conditions was created to reflect the aggregate number of reported health conditions (0–2, 3–5, 6–15; see Table 2). To report health status, we drew from the data that asked respondents the following: “Would you say that in general your health is . . .” and were given five choices, ranging from *excellent* to *poor*. Authors report good construct validity, including with samples of older adult populations who are low income, which have common sociodemographic characteristics with older prison populations. Acceptable correlations with Short Form (36) Health Survey (SF-36; Ware & Sherbourne, 1992) scales for depression (.55), pain (.56), and vitality (.50) have also been found (Moriarty, Zack, & Kobau, 2003; USDHHS, 2000). Other studies with older adults in prison report acceptable psychometric properties for this measure.

Although this study focuses on black and white elders in prison, three race groups were included for comparisons: White, Black, and Other. “Other” includes all respondents who identified as Hispanic, Latino, or other race. All potential factors have been either categorized or grouped. Chi-square tests were employed to compare these potential factors across three race groups in Tables 1 and 2. A univariate logistic regression model was used to examine the relationship between each factor and the

Table 1. Sample Characteristics by Race.

	White (n = 225)		Black (n = 281)		Other (n = 119)		p Value
	No.	%	No.	%	No.	%	
Age							
50–54	78	34.82	146	51.41	62	52.10	< 0.001 ^a
≥ 55	146	65.18	138	48.59	57	47.90	
Marital status							
Never/separated/divorced/widowed/other	171	77.38	203	73.55	88	75.86	0.61
Married/partner	50	22.62	73	26.45	28	24.14	
Education							
High school or less	105	47.09	179	63.93	69	57.98	< 0.001 ^a
More than high school	118	52.91	101	36.07	50	42.02	
Children							
No children	68	31.63	36	13.77	14	11.97	< 0.001 ^a
Have children	147	68.37	238	86.23	103	88.03	
Ever commit violent offense	124	55.86	202	71.63	67	58.26	< 0.001 ^a
Prior jailed	116	52.25	234	84.17	70	60.34	< 0.001 ^a
Years in prison, < 15	157	73.02	174	63.97	78	68.42	0.10
Years to release, ≤ 5	127	57.47	186	66.67	77	65.25	0.09
Age at first incarceration, < 18	25	21.55	86	37.07	14	20.59	0.002 ^a
Health or medical problems	183	85.51	235	85.77	106	90.60	0.37
Mental health, in or out patient	80	40.61	64	26.02	31	29.52	0.004 ^a
Emotional health							
Never/rarely	117	52.94	161	58.12	73	61.34	0.28
Often/almost always/always	104	47.06	116	41.88	46	38.66	
Alcohol or drug use	58	29.90	102	40.32	35	33.33	0.07
Attend religious services	108	52.43	193	74.23	70	64.22	< 0.001 ^a
Use recreational services	146	72.64	185	71.98	79	71.17	0.96
Visits by:							
Spouse/life partner	55	27.23	97	37.89	29	26.36	0.02 ^a
Children	72	35.47	115	43.73	46	41.07	0.19
Other family	129	60.85	175	63.64	66	56.41	0.40
Other inmates	76	41.30	102	44.74	43	40.57	0.69
Probation/parole officer	12	6.12	32	12.55	11	9.82	0.07
Centers for Disease Control and Prevention Healthy Days measure							
Excellent/very good/good	141	64.09	200	70.92	80	68.97	0.26
Fair/poor	79	35.91	82	29.08	36	31.03	
Health conditions							
0	62	27.68	72	25.44	28	23.73	0.02 ^a
1–2	127	56.70	147	51.94	73	61.86	
3–5	18	8.04	50	17.67	14	11.86	
6+	17	7.59	14	4.95	3	2.54	

Note. Differences in prevalence were assessed using the chi-square test at $p < .05$.

Table 2. Prevalence of Health Conditions by Race.

	White, % (n = 224)	Black, % (n = 283)	Other, % (n = 118)
Arthritis/rheumatism	15.63	19.43	13.56
Back or neck problem	21.43	18.02	16.95
Fractures, bone/joint injury	13.39	9.19	6.78
Walking problem	11.16	10.60	11.02
Lung/breathing problem	12.05	8.48	7.63
Hearing problem	7.59	3.89	2.54
Eye/vision problem ^a	14.73	24.03	21.19
Heart problem	11.16	8.83	10.17
Stroke problem	1.79	2.12	0.00
Hypertension/high blood pressure ^a	10.71	21.55	12.71
Diabetes	6.70	12.72	9.32
Cancer	2.68	1.77	2.54
Depression/anxiety/emotional problem	11.16	9.54	8.47
HIV/AIDS ^a	1.79	6.36	2.54
Other impairment/problem ^a	10.27	4.59	11.86

^aDifferences in prevalence were assessed using the chi-square test at $p < .05$.

outcome variable, self-reported stress. All factors that were statistically significant and associated with the outcome were included in the multivariate logistic regression model, except race. The race variable was forced in the multivariate logistic regression model. The Hosmer-Lemeshow goodness-of-fit statistics was used to check the final multivariate model. Crude and adjusted odds ratios (ORs) with 95% confidence intervals (CI) are presented in Tables 3 and 4. Table 4 includes only health conditions. A p value less than 0.05 was considered a statistically significant result.

Results

In this sample of 625 males, 36% were White, 45% Black, and 19% consisted of Other (Table 1). Racial minorities were over-represented in this sample compared to national and state level statistics (Guerino et al., 2011). For the purposes of this study, we focused our discussion on differences between White and Black prisoners because the category of Other consists of relatively small subsamples and does not

Table 3. Odds Ratios (ORs) for Factors Associated with Self-Reported Stress.

	Often to Always, %	Univariate, OR [95% CI]	Multivariate, OR [95% CI] ^a
Age			
50–54	44.09	Reference	
≥ 55	42.31	0.93 [0.68, 1.28]	
Race			
White	47.06	Reference	Reference
Black	41.88	0.81 [0.57, 1.16]	0.71 [0.44, 1.16]
Other	38.66	0.71 [0.45, 1.12]	0.68 [0.38, 1.19]
Marital status			
Never/separated/divorced/widowed/other	43.96	Reference	
Married/life partner	41.22	0.89 [0.61, 1.30]	
Education			
High school or less	41.79	Reference	Reference
More than high school	44.36	1.11 [0.80, 1.53]	1.18 [0.79, 1.76]
Children			
No children	45.30	Reference	
Have children	42.53	0.89 [0.60, 1.34]	
Ever commit violent offense	47.93	1.68 [1.19, 2.36]*	1.57 [1.03, 2.40]*
Prior jailed	47.22	1.61 [1.13, 2.29]*	1.44 [0.89, 2.32]
Years in prison, < 15	42.82	1.07 [0.75, 1.51]	
Years to release, ≤ 5	42.08	1.18 [0.85, 1.65]	
Age at first incarceration, < 18	47.15	0.97 [0.64, 1.49]	
Health or medical problems	45.00	1.81 [1.08, 3.02]*	1.30 [0.70, 2.42]
Mental health, in or out patient	58.62	2.58 [1.78, 3.74]*	1.94 [1.25, 2.99]*
Alcohol or drug use	46.11	1.28 [0.90, 1.83]	
Attend religious services	42.82	1.09 [0.77, 1.55]	
Use recreational services	40.79	0.89 [0.61, 1.30]	
Visits by:			
Married/life partner	39.33	0.80 [0.55, 1.14]	
Children	36.24	0.62 [0.44, 0.88]*	0.67 [0.42, 1.06]
Other family	38.50	0.64 [0.46, 0.90]*	0.80 [0.51, 1.26]
Other inmates	46.12	1.36 [0.96, 1.94]	
Probation/parole officer	36.36	0.75 [0.42, 1.34]	
Centers for Disease Control and Prevention			
Healthy Days measure			
Excellent/very good/good	33.66	Reference	Reference
Fair/poor	63.08	3.37 [2.36, 4.80]*	2.28 [1.48, 3.53]*
Health conditions			
0	23.57	Reference	Reference
1–2	46.67	2.84 [1.86, 4.34]*	1.74 [1.04, 2.90]*
3–5	55.66	4.05 [2.29, 7.19]*	2.48 [1.21, 5.06]*
6–15	69.70	7.46 [3.26, 17.1]*	4.24 [1.50, 12.0]*

Note. CI = confidence interval.

^aMultivariate model includes all variables that are statistically significant in univariate model at ($p < .05$), except the education variable included in the model as adjustment and race variable as primary predictor.

* $p < .05$.

Table 4. Odds Ratios (ORs) for the Association between Health Conditions and Self-Reported Stress.

	Often to Always, %	Univariate OR [95% CI]	Multivariate OR [95% CI] ^a
Race			
White	47.06	Reference	Reference
Black	41.88	0.81 [0.57, 1.16]	0.88 [0.59, 1.29]
Other	38.66	0.71 [0.45, 1.12]	0.79 [0.48, 1.28]
Back or neck problem	56.41	1.93 [1.29, 2.91]*	1.34 [0.85, 2.13]
Fractures, bone/joint injury	58.06	1.95 [1.15, 3.32]*	1.58 [0.88, 2.83]
Walking problem	44.78	1.08 [0.65, 1.79]	
Lung/breathing problem	67.24	2.99 [1.69, 5.31]*	2.42 [1.28, 4.56]*
Hearing problem	64.52	2.51 [1.18, 5.32]*	1.61 [0.67, 3.83]
Eye/vision problem	55.65	1.88 [1.26, 2.80]*	1.10 [0.68, 1.77]
Heart problem	59.68	2.10 [1.23, 3.59]*	1.37 [0.76, 2.49]
Stroke problem	50.00	1.32 [0.38, 4.61]	
Hypertension/high blood pressure	44.44	1.06 [0.69, 1.64]	
Diabetes	45.16	1.09 [0.65, 1.85]	
Cancer	57.14	1.78 [0.61, 5.19]	
Depression/anxiety/emotional problem	83.61	8.06 [4.01, 16.20]*	5.99 [2.89, 12.40]*
HIV/AIDS	56.00	1.71 [0.76, 3.83]	
Other impairment/problem	57.14	1.84 [1.02, 3.32]*	1.57 [0.82, 2.99]

Note. CI = confidence interval.

^a Multivariate model includes all variables that are statistically significant in univariate model at ($p < .05$), except race variable as primary predictor.

* $p < .05$.

allow for meaningful comparisons. Compared to Black prisoners, White prisoners were older (65% vs. 49% are age 55+), tended to have more years of education (more than high school, 53% compared to 36%), and almost one third reported having no children (32% compared to 14%) although marital status was fairly comparable (married/partner, 23% White, 27% Black). Whites were less likely than Blacks to have ever committed a violent offense (56% vs. 72%); 52% of Whites compared to 84% of Blacks experienced prior jail time, and the proportion reporting an age at first incarceration of younger than 18 years was lower for Whites (22%) than for Blacks (37%). White prisoners were more likely to have received mental health services (41%) than Black prisoners (26%). Whites were less likely to attend religious services (52%) than Blacks (74%) and were also less likely to be visited by a married/life partner (27%) than Blacks (38%).

Health conditions

Eye/vision problems were reported less among White prisoners than Black (15% and 24%, respectively) as was hypertension (11% and 22%). These findings might also be explained by the observable differences between Whites and Blacks in the reporting of diabetes (7% and 13%, respectively), as eye/vision and hypertension are often comorbid conditions common among diabetics. The difference in prevalence of reported HIV infection between White and Black prisoners was also statistically significant (2% and 6%). In terms of the category of “other impairment/problem,” 10% of White prisoners responded yes compared to 5% of Black. Although the majority of participants in each race category had one to two health conditions, there were some statistically significant differences in the breakdown in number of health conditions by race. Although a higher percentage of White prisoners reported no other health condition, a higher percentage also reported having six or more health conditions compared to Black prisoners.

Multivariate results

As indicated in Table 3, compared to White prisoners, Black prisoners were slightly less likely to report stress. However, this difference was not significant at the $p < .05$ level in either the univariate OR comparing Black respondents with White respondents: (OR = .81, 95% CI [0.57, 1.16]) and the

multivariate model (OR = .71, 95% CI [0.44, 1.16]). Although this difference was not significant at the $p < .05$ level it is a notable effect worth reporting because it suggests a possible role of race on self-reported stress that may diminish with age.

Self-reported health status is a strong predictor of self-reported stress (OR = 2.28, 95% CI [1.48, 3.53]), as is the number of health conditions. In the multivariate models, respondents with more than six health conditions were more than 4 times as likely to report stress (OR = 4.24, 95% CI [1.5, 12]). Having ever committed a violent offense (OR = 1.57, 95% CI [1.03, 2.40]) and having received mental health services, (OR = 1.94, 95% CI [1.25, 2.99]) are also statistically associated with self-reported stress.

The models including health conditions are summarized in [Table 4](#). Lung/breathing problems have a statistically significant (OR = 2.42, 95% CI [1.28, 4.56]) association with self-reported stress. As might be expected, depression/anxiety/emotional problems are also a strong predictor of self-reported stress (OR = 5.99, 95% CI [2.89, 12.40]). And although again not statistically significant, race has a similar impact on self-reported stress as reported in [Table 3](#).

Discussion

This study explored the association between race and health among a sample of adults age 50 and older in prison. The results suggest that incarcerated older Black men appear to be more resilient than older White men. An association was found between race and self-reported stress although not statistically significant: older Black men compared to older White men were more likely to report lower levels of self-reported stress.

A growing body of literature explores the stress experiences of older adults in prison (see Maschi, Viola, & Koskinen, 2015 for a review of this literature). In a qualitative study by Maschi and colleagues (2015), many participants reported engaging in coping activities (i.e., physical, cognitive, emotional, social, spiritual coping). In the current study, older Black men were more likely to report attending religious or spiritual activities and receiving visits by a spouse/life partner, compared to their White counterparts; and older White men were more likely to have received mental health services. In another study of 30 older adults who were formerly incarcerated with a history of health and mental health issues, several participants reported that despite the drawback of prison-based services they were more accessible than community-based services (Maschi & Koskinen, 2015). Participants also described that learning to manage stress in prison assisted with helping them to manage the community reintegration experience.

The fact that knowledge and experience can facilitate adaptation is consistent with the “importation approach” (Irwin & Cressey, 1962; Sykes & Messinger, 1960). This framework suggests that prior experiences are imported into prison life. For example, if one has had the experiences of deprivation, violence, rejection, isolation, poor housing, unemployment, and other social determinants of health, these factors can facilitate adaptation and reduce stress. In our sample, having ever committed a violent offense was found to increase the likelihood of reporting stress. Black prisoners were more likely to report having committed a violent offense and were also more likely to have experienced prior incarceration, suggesting a further investigation of the interaction between psychosocial and emotional mechanisms by which race might also be associated with health during incarceration. Some support, however, comes from Merten et al. (2012), who found that loneliness, depressed mood, and valuation of life moderate the effects of race on illness for Black prisoners. These findings are important because of what they imply about the health-stabilizing effects of incarceration on physical and emotional health as reported in other studies (Massoglia, 2006; Mumola, 2007; Rosen et al., 2012; Spaulding et al., 2011).

Study limitations and future directions for research

As with all studies using cross-sectional data we cannot make any causal inferences from our findings. Short-term effects (prior month's stress) were measured as opposed to long-term results, and therefore

the findings cannot predict trends or the impact of the life course. The findings of this study should be interpreted with caution in light of evidence suggesting that incarceration has negative effects on health over the life course, which are exacerbated immediately postrelease (Binswanger et al., 2007; Maschi & Baer, 2013; Schnittker & John, 2007). Other pathways and mechanisms through which sociodemographic characteristics may be associated with health should be explored and tested. This study was unable to ascertain neither preincarceration health status nor the existence of severe deprivation prior to incarceration. Lastly, the absence of a longitudinal approach forbids any conclusions about changes over time.

Further research is needed to refine the role of race and its association with health during incarceration. Future quantitative studies should use longitudinal methods and larger sample sizes of elders who are incarcerated and formerly incarcerated to detect more meaningful comparisons that address health disparities before, during, and after prison. Randomized control studies that compare elders who are incarcerated with their community counterparts may also begin to untangle how the prison experience affects health. Qualitative studies that explore the complexities of stress and coping among older adults will begin to explain race similarities and differences that promote health and well-being.

Conclusion

Given the overrepresentation of Black males in our prisons, issues of race and incarceration continue to demand further inquiry and analysis, especially as it relates to age. Differences in individual socioeconomic factors, prior incarceration experiences and use of services and family visits could influence whether an individual would report having experienced stress in the past month. Coping with the prison experience seems to be an important factor in managing prison-related stress. The etiology for this ability to cope may be embedded, for some, in the possession of resilience that has been informed by prior incarceration and the social and developmental experiences that forged methods for how best to respond to difficult life changes. These findings have important practice implications for addressing the rights and needs of diverse elders in prison, including public health and social work-based prevention and intervention programs that address chronic health conditions and stress management and develop or modify existing family and community integration (and reintegration) programs (Maschi et al., 2014).

Unquestionably, incarceration should not be understood nor accepted as a pathway to improved health outcomes for anyone. Efforts can and should however be made to establish a more structured environment in communities where access to care is more immediate and effective throughout the life span. Furthermore, understanding that the long-term deleterious effects of incarcerations are often exacerbated upon release, communities of origin need to be equipped to receive and respond to the needs of the reentry population.

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