J Urban Health (2020) 97:105–111
https://doi.org/10.1007/s11524-019-00382-0

Perceived Discrimination Based on Criminal Record in Healthcare Settings and Self-Reported Health Status among Formerly Incarcerated Individuals

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Published online: 18 October 2019

Abstract Perceived discrimination based on criminal record is associated with social determinants of health such as housing and employment. However, there is limited data on discrimination based on criminal record within health care settings. We examined how perceived discrimination based on criminal record within health care settings, among individuals with a history of incarceration, was associated with self-reported general health status. We used data from individuals recruited from 11 sites within the Transitions Clinic Network (TCN) who were released from prison within the prior 6 months, had a chronic health condition and/or were age 50 or older, and had complete information on demographics, medical history, self-reported general health status, and self-reported perceived discrimination ($n = 743$).

Study participants were mostly of minority racial and ethnic background (76%), and had a high prevalence of self-reported chronic health conditions with half reporting mental health conditions and substance use disorders (52% and 50%, respectively), and 85% reporting one or more chronic medical conditions. Over a quarter (27%, $n = 203$) reported perceived discrimination by health care providers due to criminal record with a higher proportion of individuals with fair or poor health reporting discrimination compared to those in good or excellent health (33% vs. 23%; $p = .002$). After adjusting for age and reported chronic conditions, participants reporting discrimination due to criminal record had 43% increased odds of reporting fair/poor health (AOR 1.43, 95% CI 1.01–2.03). Race and ethnicity did not modify this relationship.

Participants reporting discrimination due to criminal record had increased odds of reporting fair/poor health. The association between perceived discrimination by health care providers due to criminal record and health should be explored in future longitudinal studies among individuals at high risk of incarceration.

Clinical Trial Registration: NCT01863290

Keywords Discrimination · Incarceration · Prison · General health status · Primary care

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Introduction

Discrimination based on a criminal record is well documented. In a seminal study conducted in Milwaukee in 2003, trained black and white research assistants were deployed to apply for the same jobs, with the only difference being their incarceration history on their resumes. Individuals with criminal records had a two times increased odds of not receiving a call back for a job application compared with those without a criminal record. Moreover, white applicants with a criminal record were more likely to get a job compared to blacks without a criminal record, highlighting how race modifies this relationship [1]. This study has since been repeated in other communities and also with receipt of other social services, including housing and public education [2–5]. The effects documented are profound and persistent, such that local, state, and federal policies have been enacted to mitigate employer discrimination against those individuals with a criminal record.

In spite of the general acknowledgment of discrimination based on criminal record, much less research has studied discrimination based on criminal record in the health care setting. In one cross-sectional study, 42% of individuals who were recently released from California state prison reported feeling discriminated against based on their criminal record, and perceived discrimination was associated with higher psychological distress and higher utilization of the emergency department (ED) compared with those who did not perceive discrimination [5, 6]. A recent study in the Canadian primary care system found that trained research assistants calling for appointments who did not report being recently incarcerated had twice the odds of getting a new appointment for primary care in their universal healthcare system compared with those who reported recent incarceration [7]. In the context of the larger literature on discrimination and health [8–13], these data raise concern that a history of incarceration may contribute to suboptimal engagement in the healthcare system which may contribute to poorer health outcomes following release.

Using data from a multisite cohort study, we describe the prevalence of perceived discrimination based on criminal record in healthcare settings among individuals recently released from prison and study the association between discrimination and self-reported physical health. Because racial/ethnic minorities are disproportionately incarcerated [14], and because race modifies discrimination for criminal records in employment [1], we also examined how race and ethnicity modifies the relationship between perceived discrimination and self-reported health.

Methods

Setting and Participants The Transitions Clinic Network (TCN) is a national consortium of 29 primary care centers that serves the health needs of individuals returning from incarceration [15]. Interdisciplinary teams are the crux of each TCN program, where community health workers (CHWs) with personal histories of incarceration are embedded within primary care teams to identify and support patients returning home from incarceration who are at risk for poor health outcomes. Details about the development and organization of TCN are described elsewhere [15–17].

For this study, we utilized baseline data from 751 participants who were recruited from 11 TCN sites that were part of a study funded by the Center of Medicare & Medicaid Innovation from May 2013–February 2015. Participants were eligible if they were released from prison within the prior 6 months and were age 50 or older or had a chronic health condition (including physical health conditions, such as asthma or hypertension; mental health conditions, such as depression or bipolar disorder; or substance use disorders, such as opioid or alcohol use disorders. Criminal justice partners (e.g., staff from prisons or probation or parole programs) and/or community partners (e.g., transitional housing, shelters, and social service organizations) referred potential patients to TCN programs. During the first visit to the TCN program, new TCN patients who met inclusion criteria were consented for participation in this study. The institutional review boards of Yale University School of Medicine and each participating TCN site approved this study. A certificate of confidentiality was obtained from the Office of Human Research Protection.

Study Design and Measures After consenting to participation, individuals completed a baseline questionnaire upon TCN program enrollment, which measured demographics, medical history, general health status, and past health care utilization. The independent variable for this study was perceived discrimination due to criminal history by healthcare providers as measured by the question: "Have you ever felt that you were treated unfairly by healthcare providers (doctors, nurses, etc.) because of your criminal record?" (dichotomized as yes/no) [5].

The dependent variable was self-reported general health status as measured by the question "In general, would you say your health is: Excellent, Very Good, Good, Fair, Poor" (dichotomized as Excellent/Very Good/Good vs. Fair/Poor). Additional covariates included demographic variables [age (years); gender (male/female/other); race/ethnicity (non-Hispanic Black, non-Hispanic White, Hispanic, other); marital status (married/partner, single/never married, separated/divorced/widowed); sexual orientation (heterosexual, LGBTQ, unknown)]; socioeconomic variables [employment (yes, no, retired/disabled); education (less than high school, high school or greater); housing (homeless, transitional, family/friends, rent/own)]; self-reported number of chronic medical conditions (none, 1 to 2, 3, or more); self-reported presence of mental health condition (yes/no to one or more of the following: depression, bipolar disorder, post-traumatic stress disorder, and schizophrenia); and presence of a substance use disorder (SUD; yes/no to alcohol dependence/addiction and/or drug dependence/addiction), median incarceration time, regular source of care pre-incarceration (yes, no); and having a health care provider visit during incarceration (yes, no).

Data Analysis We used univariate and bivariate analyses to determine the prevalence of perceived discrimination and other covariates for the entire analytic sample. We then used logistic regression to explore the association of perceived discrimination in healthcare due to criminal record with self-reported health status overall. An interaction term for race/ethnicity*perceived discrimination was added to explore potential effect modification by race/ethnicity given past studies which have shown that race/ethnicity moderates the relationship between discrimination based on criminal record and employment [1]. Bivariate analyses were used to determine the association of covariates of interest with perceived discrimination, and regression models were then adjusted for the following covariates where $p < 0.2$ in bivariate analyses: age, marital status, employment, presence of mental health disorder, presence of an SUD, and number of chronic medical conditions.

Results

Of the 751 participants completing the baseline survey, 743 had complete information on discrimination status and self-reported health status. Only one respondent reported "other" for gender, so that person was excluded to preserve confidentiality. Descriptive statistics of the analytic cohort are presented in Table 1. The median incarceration time was 39 months (interquartile ratio-IQR 80). The cohort was 85% male ($N = 634$) with a mean age of 46 years (SD = 11.2). An overwhelming majority (90%) were unemployed or unable to work (i.e., disabled). Almost a quarter of the participants were homeless, with only 10% renting or owning their own home, and the remaining participants living in transitional housing or with friends or family. There was a high prevalence of self-reported chronic health conditions with 44% reporting having three or more chronic medical conditions.

Over a quarter (27%, $n = 203$) reported perceived discrimination due to criminal record by health care providers (Table 2). Participants who reported discrimination were slightly older (47.9 vs. 45.6 years), with a statistically significantly higher proportion reporting a mental health (60% vs. 50%, $p = 0.01$) or SUD (57% vs. 47%, $p = 0.02$) compared to participants who did not perceive discrimination. A higher proportion of Hispanic participants and those who were unable to work reported discrimination, whereas a lower proportion of married participants reported discrimination; however, these differences were not statistically significant but they did meet the $p < 0.2$ threshold for inclusion in adjusted logistic regression analyses.

Almost half of the participants (46%) reported fair or poor general health status overall, with a higher proportion of fair/poor general health status among those also reporting discrimination compared to those not reporting discrimination (33% vs. 23%; $p = .002$). When stratified by presence of mental health disorder, among those without mental health disorders, a statistically significantly higher proportion of those who reported discrimination due to incarceration history reported fair/poor health status (29% vs. 19%, $p = 0.03$). Among those with a mental health disorder, a higher proportion of those who reported discrimination due to incarceration history reported fair/poor health status (35% vs 27%), but this difference was not statistically significant ($p = 0.07$). A similar pattern was found in analyses stratified by SUD (data not shown). In logistic regression analyses, participants reporting discrimination due to criminal record had 50% higher odds of reporting fair/poor health status (AOR 1.43, 95% CI 1.01–2.03; Table 3). We did not find an effect modification by race/ethnicity ($p = 0.58$).

Table 1 Baseline characteristics of TCN analytic cohort overall ($n = 743$)

Age, yrs	46 (SD = 11.2)	
	N	%
Gender		
Female	109	15%
Male	634	85%
Race/ethnicity		
White	134	18%
Black	345	46%
Hispanic	226	30%
Other	38	5%
Education		
Less than HS	433	58%
HS or greater	304	41%
Unknown	6	1%
Marital status		
Single/never married	489	66%
Married/partner	64	9%
Separated	184	25%
Unknown	6	1%
Sexual orientation		
Heterosexual	683	92%
LGBTQ	50	7%
Unknown	10	1%
Residence		
Homeless	182	24%
Transitional	282	38%
Family/friends	204	27%
Rent/own	75	10%
Employment		
Yes	76	10%
No	584	78%
Unable (retired/disabled)	81	11%
Missing	2	0%
Health insurance		
Yes	445	60%
No	297	40%
General health		
Fair to poor	346	46%
Good to excellent	403	54%
Chronic medical conditions		
None	108	15%
1 to 2	306	41%
3 or more	329	44%
Substance use disorder		
Yes	375	50%
No	376	50%
Mental health disorder		
Yes	396	53%
No	355	47%

Percentages may not equal to 100% due to rounding

DOC = Department of Correction

Table 2 Baseline characteristics of TCN analytic cohort by discrimination status ($n = 743$)

		Perceived discrimination due to criminal history		
		Yes	No	X^2 *p* value
		$n = 203$	$n = 540$	
Age, yrs				
	Mean (range)	47.89 (10.64)	45.57 (11.35)	**0.01**
Gender				0.61
	Female	16%	14%	
	Male	84%	86%	
Race/ethnicity				*0.14*
	Non-Hispanic White	18%	18%	
	Non-Hispanic Black	41%	49%	
	Hispanic	37%	28%	
	Other	4%	5%	
Education				0.78
	Less than HS	58%	59%	
	HS or greater	42%	41%	
Marital status				*0.08*
	Single/never married	66%	67%	
	Married/partner	6%	10%	
	Separated/divorced/widow	29%	24%	
Sexual orientation				0.27
	Heterosexual	92%	94%	
	LGBTQ	8%	6%	
	Unknown	1%	2%	
Housing				0.51
	Homeless	28%	23%	
	Transitional	36%	39%	
	Family/friends	26%	28%	
	Rent/own	11%	10%	
Employment				*0.16*
	Yes	8%	11%	
	No	78%	79%	
	Unable to work	14%	10%	
Insurance				
	Yes	60%	60%	0.9
	No	40%	40%	
Mental health disorder				**0.01**
	Yes	60%	50%	
	No	40%	50%	
Substance use disorder				**0.02**
	Yes	57%	47%	
	No	43%	43%	
Incarceration time, months				
	Median (IQR)	41 (97.-5)	39 (71.-25)	0.75

Percentages may not equal to 100% due to rounding

Any p<0.05 is in bold

Any p<0.20 is italicized, and represents variables included in the logistic regression

Table 3 Adjusted logistic regression model of association of perceived discrimination due to criminal history with fair/poor self-reported general health status

Participant Characteristics		AOR	95% CI	*p* value
	No	Ref		
Perceived discrimination due to criminal history	Yes	**1.43**	**(1.01–2.03)**	**0.05**
Age		1.01	(1.00–1.03)	0.11
Marital status	Single	Ref		
	Married	1.06	(0.60–1.85)	0.85
	Separated/divorced/widowed	0.87	(0.60–1.26)	0.45
Employed	Yes	Ref		
	No	1.39	(0.82–2.37)	0.22
	Unable to work	1.90	(0.94–3.84)	0.07
Number of chronic medical conditions	None	Ref		
	1 to 2	0.88	(0.54–1.41)	0.59
	3 or more	**2.64**	**(1.61–4.33)**	**< 0.001**
Mental health condition	No	Ref		
	Yes	**1.50**	**(1.08–2.09)**	**0.02**
Substance misuse	No	Ref		
	Yes	0.81	(0.58–1.11)	0.19

(reference = Good to excellent)

Any p<0.05 is in bold

Discussion

Perceived discrimination by health care providers due to criminal record was associated with significantly higher odds of fair to poor self-reported general health status. This finding in a large multi-state cohort adds to the scant literature on the association of perceived discrimination due to criminal record on health outcomes, particularly with regard to perceived discrimination by health care providers. Furthermore, in our study, we did not find that racial and ethnic identity, education status, nor low socioeconomic status was associated with perceived discrimination by health care providers based on criminal record, as it had been by Frank, et al. [5]. However, having a mental health condition or SUD was associated with perceived discrimination due to incarceration history by health care providers.

Possible mechanisms for the association of perceived discrimination due to criminal record includes delays in seeking care, poor adherence to recommended care, and decreased use of preventive services, as these have been shown to be associated with perceived discrimination in health care settings based on patient's racial or ethnic background [18–23]. Medical mistrust, poor patient-provider communication, and decreased satisfaction with care may be driving these relations [24, 25], though further research is needed, especially in the realm of how discrimination specifically based on criminal record may impact health care utilization and its associated outcomes.

In addition, it is possible that the perceived discrimination by health care providers due criminal record was influenced by participants' recent experiences with health care providers within correctional facilities. In addition, the perceived discrimination may have been influenced by participant experiences with healthcare providers outside of correctional facilities when they became aware of their criminal record. Prior to engagement with the TCN program, 52% of participants reported having a regular source of medical care prior to being incarcerated, while 86% of participants reported seeing a health care provider during incarceration. Given the significant prevalence of chronic medical conditions, mental health conditions, and SUD, it is not clear if these conditions were newly diagnosed during incarceration. Future studies should also clarify how these different systems of care impact perceived discrimination based on criminal record in this population. In order

to distinguish between internalized stigma from the patient and the presence of stigmatizing comments by providers, it could be helpful to record or observe provider-patient interactions.

Several limitations should be noted. The cross-sectional study analysis limits the ability to make causal inferences. In addition, we used a single-item measure for perceived discrimination based on criminal record, which may not be sufficiently sensitive to the experience of discrimination or stigma. This study did not include a measure of household income because it may not be as salient a measure of material hardship in low-income populations [26]. Consistent with national data [27], study participants had little or no income; therefore, other salient measures of socioeconomic status that impact health status were included (i.e., housing, insurance status, and education). Participants were not asked about perceived discrimination due to other attributes such as race/ethnicity, sexual orientation, or socioeconomic status. Qualitative work among formerly incarcerated HIV-positive African American men suggests that intersecting forms of stigma may have a severe impact on health status [28]. Future work should explore the potential intersectional and/or synergistic impact of perceived discrimination across multiple attributes on health outcomes. Lastly, perceived discrimination based on incarceration history by health care providers was assessed only upon enrollment in the TCN program and not after enrollment during follow-up assessments. Therefore, we are not able to assess the association of perceived discrimination due to criminal history with post-TCN enrollment health care utilization (e.g., ED visits or hospitalizations). Furthermore, we are unable to assess the impact of TCN enrollment on changes in perceived discrimination due to criminal record.

Understanding the factors that contribute to perceived discrimination by this population is important, especially given the health insurance expansions resulting in Medicaid eligibility for nearly 250,000 individuals leaving correctional facilities each year [29]. More than a quarter of individuals in this study reported a history of healthcare discrimination based on criminal record, and self-reported health varied based on participants' experiences with discrimination with healthcare settings. For healthcare providers and other stakeholders, attention to this issue may be necessary to ensure quality healthcare for this vulnerable population. Further, screening for criminal record, while important clinically, has the potential to contribute to patients' perceived discrimination. Providers and systems asking about incarceration history should pose the question carefully and recognize the potentially stigmatizing nature of this question. Future studies could examine how to promote non-stigmatizing patient care strategies for the one in four potential patients who are US adults with criminal records.

Acknowledgments The Transitions Clinic Network Team: TCN Liaisons, community health workers, and panel managers; TCN patients and Community Partners; TCN National Advisory Board is acknowledged. Grant Number 1CMS331071-01-00 and 1C1CMS331300–01-00 from the Department of Health and Human Services, Centers for Medicare & Medicaid Services supported this research. Jenerius Aminawung and Emily Wang received salary support from the Bureau of Justice Assistance (Grant No. 2015-RY-BX-K002).

Compliance with Ethical Standards

Disclaimers Dr. Redmond contributed to this research as an employee of the University of Alabama at Birmingham. The contents of this manuscript are solely the responsibility of the authors and do not necessarily represent the official views of the National Heart, Lung, and Blood Institute; the National Institutes of Health; or the U.S. Department of Health and Human Services or any of its agencies. The research presented here was conducted by the Centers for Medicare & Medicaid Services awardee. Findings might or might not be consistent with or confirmed by the findings of the independent evaluation contractor.

Conflict of Interest Dr. Emily Wang was a consultant for CVS Caremark October 2017 and July 2018.

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