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## Lifetime Prevalence and Sociodemographic Correlates of Multifactorial Discrimination Among Middle-Aged and Older Adult Men Who Have Sex with Men

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### Abstract

This study describes multifactorial discrimination (discrimination attributed to multiple social identities) among middle-aged and older adult MSM. MSM aged 40+ years (N=1,193) enrolled in the Multicenter AIDS Cohort Study completed behavioral surveys ascertaining experiences of discrimination and their social identity attributions. Non-proportional odds regressions assessed multifactorial discrimination by age, race/ethnicity, HIV status, and covariates. Twenty-seven percent of participants reported multifactorial discrimination. Adjusted models indicated that middle-aged men were more likely to report multifactorial discrimination compared to older adult men. Racial/ethnic minorities were more likely to report multifactorial discrimination compared to non-Hispanic white participants. These same patterns emerged among the sub-sample of participants living with HIV. To our knowledge, this is the first assessment of multifactorial

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discrimination in middle-aged and older MSM. Our findings support the deleterious association between multiple-marginalization and multifactorial discrimination. Multilevel interventions targeting interconnected experiences of stigma may improve the health of MSM in transition to older age.

### Keywords

MSM; Aging; Stigma; Discrimination; HIV; Multiple Marginalization; Health Disparities

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## INTRODUCTION

Attitudes toward sexual minorities in the United States (U.S.) have vastly progressed in the past few decades, exhibiting trends of increased acceptance across a diversity of communities (Becker, 2012; Glick & Golden, 2010; Morrow, 2001; Pew Research Center, 2017; Halkitis et al., 2012). Middle-aged and older men who have sex with men (MSM; aged 40 years) are of interest to social scientists because they came of age during a time marked by rigid heteronormativity and pervasive, politically conservative attitudes on sexuality (Haider-Markel, Schnabel, 2016). While these issues remain, albeit to a lesser extent today, older sexual minorities bore witness to an era of institutionalized antigay stigma through anti-sodomy laws, forced psychiatric treatment, being fired by employers, religious persecution, and pervasive public expressions of homophobia Altman et al., 2012; Yarns et al., 2016). Since the mid-20th century, legislative efforts to protect sexual minorities have encountered successes and challenges across different sectors (e.g., employment and housing) at multiple levels of society (local, state, and federal) (Cravens III, 2015; Taylor et al., 2012).

As middle-aged and older MSM sought to increase community visibility throughout their lifetime, the lack of protections in public and private sectors increased their risk for discrimination (Stuber, Meyer, & Link, 2008; Schmitt et al., 2014). *Discrimination* is defined as the exclusion and unfair treatment of persons who belong to disadvantaged social groups by members of advantaged groups (Stuber, Meyer, & Link, 2008). These experiences reflect events in which the needs of disadvantaged individuals for inclusion and social acceptance are threatened (Schmitt et al., 2014). Prior experiences of discrimination have limited the capacities of middle-aged and older MSM to live full, productive lives (Batchelder et al., 2017; Orel, 2017). Addressing discrimination is critical to the study of aging given that it is a fundamental predictor of health inequality and mortality among marginalized communities, including MSM (Barnes et al., 2008; Hatzenbuehler, Phelan, & Link, 2013). Assessing lifetime discrimination may inform how these experiences are associated with poor health and well-being of MSM as they transition to and live in older age.

Middle-aged and older MSM came of age during the height of the human immunodeficiency virus (HIV) epidemic, which disproportionately affected their community (Halkitis et al., 2012). Stigmatizing misinformation and stereotypes attributing HIV transmission to MSM instilled a societal-level fear that these men were dangerous vectors for disease, thereby

exacerbating homophobic stigma across the U.S. (Pantalone, Puckett, & Gunn, 2016). Many of these men experienced discrimination in housing, employment, and health care because of this stigma. Furthermore, many of the families, friends, and larger communities of MSM rejected them due to actual or suspected sexual identities and HIV serostatuses (Chenard, 2007; Kaiser Family Foundation, 2012).

Multifactorial discrimination has received recent attention in exploring the health of multiple-marginalized communities (e.g., people of color who are sexual minorities) (Khan, Ilcisin, & Saxton, 2017). This construct assumes that individuals can experience discrimination attributed to more than one social identity, sometimes simultaneously, and in various capacities including in the contexts of employment, healthcare, and public accommodations (Khan, Ilcisin, & Saxton, 2017). *Social identities* refer to self-defining associations based on an individual's shared characteristics with specific, corresponding communities (e.g., racial/ethnic or sexual identity) (Chen & Chen, 2011). Multifactorial discrimination reflects the composite number of social identities an individual attributes to their experiences of discrimination is greater than two (e.g., discrimination attributed to race/ethnicity and sexuality as opposed to race or sexuality on their own).

While prior research has found respective associations that discrimination attributed to homophobia, racism, sexism, and HIV status, have on the well-being of MSM populations, these analyses assume that experiences of social stressors are non-holistic (Bauermeister et al., 2014; Hightow-Weidman et al., 2011). Assessments of multifactorial discrimination acknowledges that experiences of oppression, such as discrimination, are intrinsically linked and therefore should be assessed as a whole rather than separately (Bostwick et al., 2014; Khan, Ilcisin, & Saxton, 2017). A recent study demonstrated multifactorial discrimination as a fundamental cause of mental health inequities among sexual minorities (Khan, Ilcisin, & Saxton, 2017). Specifically, experiences of multifactorial discrimination were associated with an increase in depression and greater risk of substance use disorder diagnoses among sexual minorities compared with heterosexuals. In this study, multifactorial discrimination predicted greater levels of anxiety in sexual minorities who reported low depression (Khan, Ilcisin, & Saxton, 2017). In addition to poor mental health, another recent study observed multifactorial discrimination to be associated with poor indicators of quality of life among unemployed individuals with mental health problems, including low job search self-efficacy and help-seeking behaviors (Staiger et al., 2018). The capacity for multifactorial discrimination to debilitate the health and well-being of individuals from multiple marginalized backgrounds warrants ongoing surveillance to inform effective, multilevel health interventions. This is especially true for MSM in midlife and older age, given the historical social contexts (e.g., stigmatized sexualities and HIV) that increased these men's risk for discrimination (Halkitis et al., 2012).

Taken together, we seek to contribute to the body of knowledge on aging MSM, elucidating the extent to which middle-aged and older MSM experience discrimination attributed to their social identities across their life course. From a sample of middle-aged and older MSM, the objectives of this study were to:

1. Describe the prevalence of multifactorial discrimination;

2. Identify sociodemographic correlates associated with multifactorial discrimination; and
3. Identify sociodemographic correlates associated with multifactorial discrimination in a subsample of participants who identify as a person living with HIV (PLWH).

Although all MSM are vulnerable to discrimination given their sexual minority status, we hypothesized that older adults (> 65 years), racial/ethnic minorities, and PLWH would report greater multifactorial discrimination compared with their counterparts. Similarly, we hypothesized that older adults and racial/ethnic minorities would report greater multifactorial discrimination compared with their counterparts in the subsample of PLWH.

## METHODS

### Study Description of the Multicenter AIDS Cohort Study

The Multicenter AIDS Cohort Study (MACS) is a 33-year ongoing prospective study that examines the natural trajectories of the HIV epidemic among MSM in the U.S. The study design has been described in prior studies (Dudley et al., 1995; Kaslow et al., 1987). A total of 7,357 men were recruited at MACS clinics in Los Angeles, California, Chicago, Illinois, Pittsburgh, Pennsylvania, Baltimore, Maryland, and Washington, District of Columbia. Participants return to their MACS centers every 6 months for a battery of assessments including detailed interviews, physical examinations, and collection of blood samples for laboratory testing, which is stored in a central repository. At each visit, participants self-report their medical conditions, treatments, and behavioral risks (e.g., sexual risk and substance use). Study instruments for the MACS can be obtained at <http://www.aidscohortstudy.org>.

For this analysis, we recruited participants from the MACS as part of a healthy aging sub-study. To be eligible, participants had to be present at two consecutive MACS visits, be 40 years of age or older, and report sexual intercourse with a man at least once since enrolling into the MACS. Participants provided data at two site visits at their respective MACS clinics. We assessed baseline data that were collected as part of an earlier sub-study of the MACS (Methamphetamine Sub-Study) among participants who were present at visit number 49 or 50 (April 2008 to March 2009). We offered the baseline survey to men who were not present at visits 49 or 50 at the first wave of data collection for the current sub-study (visit number 65, April through October, 2016). Our baseline sample included 1,193 middle-aged and older MSM.

### Measures

#### Outcome

**Lifetime Multifactorial Discrimination.**—We used seven items from the validated, Major Experiences of Discrimination Scale ascertaining the different sectors in which participants may have experienced discrimination (e.g., employment, law enforcement, public accommodations) (Morrison et al., 2016; Peek et al., 2011; Williams et al., 2008). These items were scaled as (0=0 times, 1=1 to 5 times, 2=6 to 10 times, and 3=More than 10

times). These seven items were dichotomized (0=None, 1=Any), summed, and dichotomized again to reflect any lifetime discrimination experience (0=No lifetime discrimination, 1=Any lifetime discrimination). If participants reported discrimination in any of these sectors, they were subsequently asked the following item, “Please indicate which of the following best represents the top 3 reasons you were discriminated against: your age, your gender, your race, your ethnicity or nationality, your religion, your height, your weight, your physical disability, your sexuality, and your HIV status.” We created dummy variables to indicate whether participants had experienced discrimination based on any of these characteristics (*Any Age-Related Discrimination*; 0=no, 1=yes). We summed the number of discrimination types reported by participants to develop the *multifactorial discrimination* variable. Given low variation of participants who reported 4 or more social identities of which they attributed their discrimination experiences, we combined these participants with those who attributed their discrimination experiences to 3 or more social identities. The final scaling was 0 representing no discrimination, 1=lifetime discrimination attributed to one social identity, 1-discrimination type, 2=lifetime discrimination attributed to two social identities, and 3=lifetime discrimination attributed to three or more social identities. For brevity, we refer to codes one, two, and three, as 1-type, 2-types, and 3-types, respectively in the Results section. Lastly, while we assess differences between those who reported 2- and 3-types of discrimination, both refer to multifactorial discrimination.

### Predictors and Covariates

**Demographic Characteristics.**—Participants self-reported their birthdate, which was recoded for age categories (Middle-aged [40–64 years], Older adult [65+ years]) based on standard age cohort definitions [Ishii-Kuntz, 1990]). To assess race/ethnicity, participants were classified into three categories (non-Hispanic white, non-Hispanic black, all other races/ethnicities [combined Asian, Alaskan Native, Pacific Islander, and Hispanic men of all races due to low statistical power]). Sexual identity was inclusive of those who identified as gay, bisexual, or Other MSM sexual identity. HIV status distinguished participants as either negative or positive and in the sub-sample analysis, PLWH were assessed based on viral load status (undetectable and detectable). For education level participants were assessed as either having completed high school or less or more than high school/GED. We recoded participants’ unique study identifiers to indicate their wave of MACS enrollment (pre-1987 and post-2001).

### Data Analytic Strategies

We generated descriptive statistics (first aim) to describe sociodemographic characteristics and multifactorial discrimination using IBM SPSS Statistics for Windows, Version 24.0 (IBM Corporation, 2016). Given the ordinal nature of multifactorial discrimination, we examined its unadjusted relationships (univariate models) to demographic variables using proportional odds models. To assess our second and third aims, we developed a partial proportional odds model, a regression technique used with ordinal outcomes and independent variables that violate the assumption of proportional odds (Mayer & Foster, 2015). Adherence to this assumption implies that the associations of independent variables are equal at different thresholds of the dependent variable. We developed our multivariable (adjusted) partial proportional odds regression model in Statistical Analysis Software (SAS)

Version 9.4 (Cary, NC) to assess differences in the number of social identities attributed to lifetime discrimination experiences by age, race/ethnicity, and HIV status, adjusted for sexual identity, education level, and enrollment (Bender & Grouven, 1998; SAS Institute Inc., 2004). Covariates were included based on prior literature examining the associations between social disadvantaged status and exposure to discrimination as well as to align with prior analyses from the MACS (Friedman et al., 2015; Stevens et al., 2017; Swank, Fahs, & Frost, 2013). We ran a second model to examine multifactorial discrimination among the sample of PLWH only, with viral load as an additional covariate. In our results, we report findings that are statistically significant at  $p < .05$ .

## RESULTS

### Participants

Our sample had an average age of 60.25 years (*standard deviation (SD)*=8.68; range=40–92 years), with 31.8% reporting an age of 65 years and older. The sample was predominantly non-Hispanic white, identified as gay, and attained an education above a high school level. Half of the sample reported an HIV-positive serostatus. Two-thirds enrolled in the MACS prior to 1987 and the other third enrolled after 2001. Descriptive characteristics are also provided in Table 1.

### Prevalence of Lifetime Discrimination

Forty-seven percent of participants reported any lifetime discrimination – that is, at least one incident of discrimination. The most commonly reported experiences were discrimination attributed to participants' sexuality (31.6%), race/ethnicity (17.4%), and appearance (height, weight, and other aspect of physical appearance; 11.2%). Of those who reported discrimination, 19.4% reported discrimination attributed to one, 15.3% to two, and 12.1% to 3 or more social identities across their lifetime, indicating that 27.4% reported multifactorial discrimination (two or more types). Furthermore, the most commonly identified sectors in which discrimination occurred included law enforcement (28.8%) and employment (hiring: 19.2%; fired from job: 1.2%).

### Correlates of Multifactorial Discrimination

In univariate non-proportional models (Table 2), older adult men (≥ 65 years) were less likely to report 3 or more experiences of discrimination compared with midlife men (40–64 years) (*odds ratio [OR]*=0.55; 95% CI: 0.36–0.84). Compared with non-Hispanic white men, non-Hispanic blacks (*OR*=3.65; 95% CI: 2.47–5.34) and those in the other race/ethnicity category (*OR*=2.59; 95% CI: 1.53–4.38) were more likely to report 3 discrimination types. Bisexuals were more likely to report 3 or more discrimination types compared with gay-identified men (*OR*=1.94; 95% CI: 1.17–3.22). PLWH were more likely to report 3 or more types compared with HIV-negative men (*OR*=2.13; 95% CI: 1.48–3.07). Those enrolled in the MACS after the year 2000 were more likely to report 3 or more discrimination types compared with those who enrolled before the year 1987 (*OR*=1.93; 95% CI: 1.36–2.74). Compared with midlife men, older adults were less likely to report 2-discrimination types (*OR*=0.60; 95% CI: 0.45–0.81). Non-Hispanic blacks were more likely to report 2-types compared with non-Hispanic whites (*OR*=2.39; 95% CI: 1.76–3.24), and MSM of other



race/ethnicities were more likely to report 2-types compared with non-Hispanic whites ( $OR=1.90$ ; 95% CI: 1.27–2.85). Bisexual men were more likely to report 2-types compared with gay-identified men ( $OR=1.94$ , 95% CI: 1.17–3.22). PLWH were more likely to report 2-types compared with HIV-negative men ( $OR=2.07$ ; 95% CI: 1.60–2.69). Lastly, middle-aged and older MSM who reported 1-type of discrimination were more likely to report an education level greater than high school ( $OR=1.44$ ; 95% CI: 1.02–2.05) than those with a high school education or less.

In the multivariable model (adjusted for sexual identity, education level, and MACS wave enrollment), older adults were less likely to report 2-discrimination types compared to middle-aged men (*adjusted OR* [*AOR*]=0.70, 95% CI: 0.51, 0.95). Non-Hispanic blacks reported increased odds of 3 or more discrimination types ( $AOR=3.16$ ; 95% CI: 2.04–4.91), 2-types ( $AOR=2.37$ ; 95% CI: 1.66–3.38), and 1-type ( $AOR=2.22$ ; 95% CI: 1.57–3.14) compared with non-Hispanic whites. MSM in the other race/ethnicity category were more likely to report 3 or more ( $AOR=2.24$ ; 95% CI: 1.28–3.93) and 2-types ( $AOR=1.83$ ; 95% CI: 1.18–2.82) of discrimination compared with non-Hispanic whites. PLWH reported increased odds of reporting 3 or more ( $AOR=1.66$ ; 95% CI: 1.14–2.43) and 2-discrimination types ( $AOR=1.84$ ; 95% CI: 1.40–2.41) compared with HIV-negatives.

In the multivariable model (adjusted for sexual identity, education level, enrollment wave, and viral load) of PLWH only, older adults were less likely to report 2-discrimination types compared with midlife men ( $AOR=0.56$ ; 95% CI: 0.35–0.88). Non-Hispanic blacks reported increased odds of reporting 3 or more discrimination types ( $AOR=2.42$ ; 95% CI: 1.32–3.79), 2-types ( $AOR=1.90$ ; 95% CI: 1.24–2.90), and 1-type ( $AOR=1.78$ ; 95% CI: 1.17–2.72) compared with non-Hispanic whites. MSM of other race/ethnicity were more likely to report 3 or more discrimination types compared with non-Hispanic whites ( $AOR=1.98$ ; 95% CI: 1.02–3.87).

## DISCUSSION

To our knowledge, this is the first study to examine the prevalence of multifactorial discrimination across the life course in a sample of middle-aged and older MSM. We built on prior research efforts that urged examination of multifactorial discrimination, recognizing the complexities of identifying with multiple, stigmatized, social identities (Cronin & King, 2010; Khan, Ilcisin, & Saxton, 2017). Our findings reflect the persisting concern of discrimination reported by community samples of MSM. Nearly half of our sample reported any lifetime discrimination and greater than one in four indicated multifactorial discrimination. Our findings exhibited a prevalence of multifactorial discrimination similar to prior analyses (Bostwick et al., 2014; McCabe et al., 2010). While these studies observed lifetime multifactorial discrimination in roughly 25–30% of sexual minority participants, they only accounted for discrimination attributed to sexual orientation, race, and gender, ignoring other important forms of social adversity (i.e., socioeconomic and HIV statuses). Our study also exhibited high prevalence of workplace discrimination (e.g., firing and hiring) as well as discrimination perpetrated by law enforcement. Although unfortunate, it is unsurprising that law enforcement–related discrimination and employment sector discrimination were most common given evidence from prior studies that supports



historically widespread antigay discrimination perpetrated by the justice system (Bernstein & Kostelac, 2002; The Williams Institute, n.d.).

Our multivariable models support the body of literature that suggests those who identify with marginalized communities report greater multifactorial discrimination (Kertzner et al., 2009). Racial/ethnic minority MSM, particularly non-Hispanic black MSM, in midlife and older age reported greater multifactorial discrimination compared with their non-Hispanic white counterparts. Beyond pervasive racism that has burdened non-Hispanic black men across modern U.S. history, black communities generally have lagged with respect to positive attitudinal trends toward sexual minorities. Additionally, black MSM are disproportionately affected by HIV, which remains a highly stigmatized disease (Herek, Saha, & Burack, 2013; Maulsby et al., 2014).

Our findings lend support to the potential interconnectedness of oppressive experiences reported by multiple-marginalized populations. Compared with HIV-negative participants, PLWH were twice as likely to report 3 or more discrimination types. Similarly, compared with non-Hispanic white participants, non-Hispanic black participants were twice as likely to report 3 or more discrimination types. However, as multiple-marginalized men, these results may be an artifact of non-Hispanic black men and PLWH having greater awareness or being more attuned to experiences of discrimination compared with men who identify with fewer marginalized groups (Pachankis, Goldfried, & Ramrattan, 2008; Richman & Leary, 2009; Seng et al., 2012).

We found no support for our hypothesis that older adult participants would report greater multifactorial discrimination compared with those in midlife. Our contrary findings may reflect an assumption that MSM in older adulthood and midlife perceive or conceptualize experiences of or have differing sensitivities to discrimination differently from one another. Prior research has demonstrated that advantaged and disadvantaged individuals perceive and experience discrimination distinctly (Schmitt et al., 2014). Understanding how discrimination is conceptualized across age cohorts may provide more accurate age-related reports of discrimination (Schmitt et al., 2014). We hypothesized that the findings of discrimination experienced by age cohort may also be a reflection of stigma management strategies enacted by older adult MSM (Poindexter & Shippy, 2010; Lelutiu-Weinberger et al., 2013). Over time, older adult MSM, including long-time survivors of HIV/AIDS, may have reconciled experiences of stigma and/or developed resiliency (Arnold et al., 2008). As a sample in urban metropolitan areas, participants may live in areas with increased access to positive, affirming neighborhood characteristics (e.g., thriving MSM networks) (Egan et al., 2011). These factors may have mitigated against the salience of stress from experiences of discrimination. Future research should aim to explore and identify factors linked to psychological salience of discriminatory incidences experienced by midlife and older adult MSM.

### Limitations

We acknowledge study limitations that warrant consideration for future studies. Our measurement for discrimination may be limited because it does not comprehensively capture important facets of discrimination beyond incident exposure (Meyer, Schwartz, & Frost,

2008). The mechanism by which these experiences shape health in midlife and older adulthood may depend on how these experiences manifest as acute or persist as chronic stressors across the life course (Blashill, Perry, & Safren, 2011; Halkitis, Krause, & Viera, 2017). Those who currently report being affected negatively by discrimination may report worse health outcomes than those who have reconciled these experiences. Additionally, persistent everyday stressors may be more salient to participants compared with a few largely isolated discriminatory events (Williams, Neighbors & Jackson, 2003). Our discrimination measures are also limited because of their inability to ascertain whether perpetrators of discrimination are members of outgroup or in-group communities (Dasgupta, 2004). Future studies should aim to address these differences.

The validity of our discrimination measures, like in many prior studies, is challenged by the subjectivity of self-report instruments (Chenard, 2007; Halkitis et al., 2015; Herek, 2009; Kaiser Family Foundation, 2012; Meyer, 2003). Prior literature suggests that experiences of discrimination are largely underreported (Huebner, Rebchook, & Kegeles, 2004; Ruggiero & Taylor, 1997). The reliance of individuals' perceptions threatens the precision of discrimination prevalence estimates simply because many experiences of discrimination likely go undetected by the victim (Meyer, 2003). Members of disadvantaged groups tend to minimize discrimination experiences to better achieve a sense of control (Siegel, Lune, & Meyer, 1998). Given potential daily or frequent stressors attributed to marginalization, some participants may also have accepted these experiences as a mainstreamed part of daily life (inurement hypothesis; Poindexter & Shippy, 2010; Emlet, 2006). One additional potential reason for underestimations in perceived experiences of discrimination in addition to being able to detect any associations is that those with the highest or most severe exposures may have experienced premature mortality (Barnes et al., 2008).

Prior reports suggest that self-reports of discrimination are also vulnerable to confounding, particularly with respect to an individual's current psychological state (Major, Mendes, & Dovidio, 2013; Potter et al., 2015). Those who are identified as healthier react to social adversity in ways that elevate one's sense of control and reject the occurrence of the event (Conrada et al., 2000; Major, Mendes, & Dovidio, 2013; Meyer, 2003). The potentially confounding relationship between psychological distress and reporting discrimination warrants further methodological scrutiny in assessing samples of middle-aged and older MSM.

Lastly, our findings are not generalizable beyond our idiosyncratic sample. Our study consists of a sample that is linked to health care in urban centers of the U.S. These men may have increased access to resources (e.g., affirming community groups and health organizations) that support individual-level resiliencies that counteract experiences of stigma and discrimination. Replication of our analyses with additional community samples of MSM are warranted.

### **Directions for Future Research**

These limitations warrant additional research that further aims to explore the discrimination experiences of middle-aged and older MSM and their associated healthy aging-related concerns. Future research should seek to address facets beyond exposure such as chronicity

(recent/acute vs chronic) and salience. Other covariates that may elucidate vulnerability to lifetime experiences of discrimination may also include disclosure age of same-sex attractions and geographic characteristics (e.g., living in urban versus rural setting). Additionally, qualitative methods may provide insight into the formation of social identities of middle-aged and older MSM, their perceived interconnectedness, and how they are relevant to discrimination. Qualitative methods may also provide a deeper understanding as to why middle-aged MSM report greater discrimination compared to older MSM. Together, this may elucidate how middle-aged and older MSM assimilate these negative experiences across the life course. Continued exploration of discrimination sources, including sector and outgroup vs in-group, may inform strategies to scale up community-level anti-stigma efforts. Last, resiliency-focused efforts to identify factors that mitigate discrimination's impact on the health of middle-aged and older MSM may inform strengths-based interventions (Herrick et al., 2011).

### **Directions for Public Health Policy and Practice**

Our study implicates a great need for multilevel strategies to prevent and reduce the types and frequency of discrimination experienced by middle-aged and older MSM (Cook et al., 2014). Academic research institutions, health organizations/systems, and grassroots organizations are important catalyzers to support positive sociopolitical change. Support for these institutions to continue advocating for comprehensive, anti-discriminatory legislation, as well as programs that engage community stakeholders, is critical. At the federal level, sexual and gender minorities are not protected from discrimination (Movement Advancement Project, 2019). These protections are especially important in sectors in which middle-aged and older MSM reported a high prevalence of discrimination (e.g., law enforcement and employment) (Hebl, Barron, & Cox, 2016; Pizer et al., 2012).

Efforts are necessary to target community-level anti-stigma attitudes and beliefs as well as discriminatory practices. Interventions should engage communities in dialogues regarding sexuality-related issues, especially in communities that continue to lag in positive attitudes toward homosexuality (e.g., racial/ethnic minority communities, older adult communities) (Dessel & Rogge, 2008; Porter, 2014). Group dialogues may benefit from discussions on the importance of diversity in communities. These discussions may elicit individuals to reflect on how their social identities are interconnected and shape their social advantages and disadvantages in society.

## **CONCLUSIONS**

The increasing successes of sexual minority civil rights in the U.S. are in large part a reflection of positively shifting attitudes toward lesbian, gay, and bisexual communities (Gwartney & Schwartz, 2016; Jones, Cox, & Navarro-Rivera, 2014). Across the life course, MSM who are now in midlife and older adulthood have contributed to paving the path to these successes in enduring multiple forms of social adversity and fighting through social climates in various sectors to change hearts, minds, and attitudes (Brown, 2009). As research efforts seek to better understand social determinants of healthy aging, exploring social adversity is critical and provides a pragmatic direction to identify ways for improving the

social and psychological needs of middle-aged and older MSM. Given prior research that has observed robust associations between experiences of stigma and health disparities that burden disadvantaged populations (Hatzenbuehler, Phelan, & Link, 2013), our findings provide a foundation to address the role of multifactorial discrimination as it pertains to the health and well-being of MSM in midlife and older age.

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**Table 1.**

Sample Characteristics (*N* = 1,192)

Characteristic	0 Discrimination Types, <i>n</i> (%)	1 Discrimination Type, <i>n</i> (%)	2 Discrimination Types, <i>n</i> (%)	3 Discrimination Types, <i>n</i> (%)	Total, <i>n</i> (%)
Age cohort, years					
40–64	428 (52.6)	138 (17.0)	134 (16.5)	113 (13.9)	813 (88.2)
65+	207 (54.6)	93 (24.5)	48 (12.7)	31 (8.2)	379 (31.8)
Race/ethnicity					
Non-Hispanic white	470 (56.7)	174 (21.0)	120 (14.5)	65 (7.8)	829 (69.5)
Non-Hispanic black	99 (41.1)	44 (18.3)	41 (17.0)	57 (23.7)	241 (20.2)
All Other races/ethnicities	66 (54.1)	13 (10.7)	21 (17.0)	22 (18.0)	122 (10.2)
Sexual orientation					
Gay	568 (54.1)	207 (19.7)	158 (15.1)	116 (11.1)	1,049 (88.0)
Bisexual	22 (42.3)	8 (15.4)	9 (17.3)	13 (25.0)	52 (4.4)
Other MSM sexual identity	45 (49.5)	16 (17.6)	15 (16.5)	15 (16.5)	91 (7.6)
HIV status					
Negative	335 (56.1)	141 (23.6)	72 (12.1)	49 (8.2)	597 (50.1)
Person Living with HIV	300 (50.4)	90 (15.1)	110 (18.5)	95 (16.0)	595 (49.9)
Education level					
HS or less	91 (61.1)	23 (15.4)	15 (10.1)	20 (13.4)	149 (12.5)
More than HS/GED	544 (52.2)	208 (19.9)	167 (16.0)	124 (11.9)	1,043 (87.5)
Wave of MACS enrollment					
Pre-1987	396 (53.0)	161 (21.6)	120 (16.1)	70 (9.4)	747 (62.7)
Post-2001	239 (53.7)	70 (15.7)	62 (13.9)	74 (16.6)	445 (37.3)
<b>Total, <i>n</i> (%)</b>	<b>635 (53.3)</b>	<b>231 (19.4)</b>	<b>182 (15.3)</b>	<b>144 (12.1)</b>	<b>1,192 (100.0)</b>

HS, high school; GED, general equivalency diploma; MACS, Multicenter AIDS Cohort Study; MSM, men who have sex with men.

**Table 2.** Non-proportional Odds Regression Models Examining Multifactorial Discrimination by Sociodemographic Characteristics (N= 1,192)

	Unadjusted Models		Adjusted Model		PLWH Only Adjusted	
	OR	95% CI	OR	95% CI	OR	95% CI
<i>Age category</i>						
65 years vs 40–64 years						
3 Discrimination types	0.55*	0.36, 0.84	0.78	0.49, 1.22	0.73	0.39, 1.35
2 Discrimination types	0.60*	0.45, 0.81	0.70*	0.51, 0.95	0.56*	0.35, 0.88
1 Discrimination type	0.92	0.72, 1.18	0.94	0.72, 1.23	0.90	0.59, 1.37
<i>Race category</i>						
Black vs white						
3 Discrimination types	3.65*	2.47, 5.34	3.16*	2.04, 4.91	2.42*	1.32, 3.79
2 Discrimination types	2.39*	1.76, 3.24	2.37*	1.66, 3.38	1.90*	1.24, 2.90
1 Discrimination type	1.87*	1.40, 2.50	2.22*	1.57, 3.14	1.78*	1.17, 2.72
<i>Other vs white</i>						
3 Discrimination types	2.59*	1.53, 4.38	2.24*	1.28, 3.93	1.98*	1.02, 3.87
2 Discrimination types	1.90*	1.27, 2.85	1.83*	1.18, 2.82	1.48	0.86, 2.55
1 Discrimination type	1.11	0.76, 1.62	1.33	0.88, 2.00	1.22	0.72, 2.06
<i>Sexual identity</i>						
Bisexual vs gay	1.94*	1.17, 3.22	1.43	0.83, 2.48	1.51	0.76, 3.00
Other MSM vs gay	1.30	0.87, 1.94	1.12	0.73, 1.73	1.26	0.73, 2.18
<i>HIV status</i>						
PLWH vs negative						
3 Discrimination types	2.13*	1.48, 3.07	1.66*	1.14, 2.43	-	-
2 Discrimination types	2.07*	1.60, 2.69	1.84*	1.40, 2.41	-	-
1 Discrimination type	1.25	1.00, 1.57	1.18	0.93, 1.50	-	-
<i>Education</i>						
More than HS/GED vs less than HS						
3 Discrimination types	0.87	0.52, 1.44	1.63	0.95, 2.80	2.10*	1.02, 4.31

	Unadjusted Models		Adjusted Model		PLWH Only Adjusted	
	OR	95% CI	OR	95% CI	OR	95% CI
2 Discrimination types	1.26	0.84, 1.88	2.10*	1.37, 3.23	1.99*	1.17, 3.39
1 Discrimination type	1.44*	1.02, 2.05	1.86*	1.27, 2.73	1.58	0.98, 2.55
Enrollment wave						
Post-2000 vs Pre-1987						
3 Discrimination types	1.93*	1.36, 2.74	1.11	0.74, 1.66	1.24	0.76, 2.02
2 Discrimination types	1.29	1.00, 1.68	0.81	0.60, 1.11	0.74	0.50, 1.10
1 Discrimination type	0.97	0.77, 1.23	0.73	0.55, 0.98	0.57*	0.39, 0.83
Viral load						
Detectable vs undetectable						
3 Discrimination types	-	-	-	-	0.78	0.42, 1.45
2 Discrimination types	-	-	-	-	0.74	0.47, 1.19
1 Discrimination type	-	-	-	-	0.69	0.45, 1.07

\*  $p < 0.05$ .

HS, high school; GED, general equivalency diploma; HS, high school; MSM, men who have sex with men; PLWH, person living with HIV; OR, odds ratio.