

PERPETUATED HIV MICROAGGRESSIONS: A NOVEL SCALE TO MEASURE SUBTLE DISCRIMINATION AGAINST PEOPLE LIVING WITH HIV

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HIV discrimination has served as a barrier to addressing the HIV epidemic and providing effective HIV treatment and care. Measuring HIV discrimination, particularly covert HIV discrimination, has proven to be complex. Adapted from a previous scale, we developed a perpetuated HIV microaggressions scale to assess covert forms of discriminatory beliefs among HIV-negative/unknown HIV status individuals. Factor analysis resulted in three subscales, explaining 73.58% of the scale's variance. The new scale demonstrated both convergent validity (HIV prejudice, HIV stereotypes) and discriminant validity (alcohol use, depressive symptomology). Perpetuated HIV microaggressions were significantly associated with HIV conspiracy beliefs, HIV prejudice, and HIV stereotypes. This new scale can serve as an important tool in evaluating perpetuated HIV microaggressions among HIV-negative individuals.

Keywords: HIV microaggressions, discrimination, stigma

HIV discrimination, or prejudicial treatment against a person or group based on their actual or perceived HIV status, has remained problematic since the beginning of the HIV pandemic (Parker & Aggleton, 2003). The occurrence of HIV discrimination against people living with HIV (PLWH) can lead to increased physical (e.g., lower CD4 counts) and mental (e.g., depression, anxiety) health issues (Bogart, Landrine, Galvan, Wagner, & Klein, 2013; Earnshaw, Smith, Chaudoir, Amico, & Copenhagen,

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This research involved human subjects and was conducted with the approval of the University of Connecticut Institutional Review Board and research was conducted in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The authors have no conflicts of interest to report.

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2013). HIV discrimination is often perpetuated by false beliefs and misconceptions about HIV, including: how HIV is transmitted, perceived negative beliefs regarding sexual and substance use behaviors of individuals living with HIV, and fear of HIV transmission (Genberg et al., 2008; Malcolm et al., 1998).

HIV discrimination has often been studied through macroaggressions, or overt manifestations of discriminatory behaviors; yet, an increasing body of literature has called attention to the importance of studying covert discriminatory acts, also known as microaggressions (Sue, 2010). Macroaggressions enacted toward PLWH include the denial of health care services, experiences of physical violence, and hate crimes due to HIV status (Bharat, Aggleton, & Tyrer, 2001; Maman, Campbell, Sweat, & Gielen, 2000). In contrast, HIV microaggressions may be intentionally or unintentionally directed toward members of PLWH. Microaggressions can occur through repeated verbal slights or covert behaviors, are often commonplace, and include passive behaviors designed to degrade an individual based on their actual or perceived HIV status (Sue et al., 2007). While individuals who commit microaggressions are often unaware of the impact of their degradations, those who experience repeated, daily microaggressions are negatively impacted by them (Nadal et al., 2011; Platt & Lenzen, 2013; Sue, 2010). Those who regularly experience microaggressions have reported negative health consequences, including increased internalized stigma, disturbed sleep patterns, and diminished physical health (Ong, Burrow, Fuller-Rowell, Ja, & Sue, 2013; Ong, Cerrada, Lee, & Williams, 2017).

Literature on microaggressions has posited that microaggressions occur through microassaults, microinsults, and microinvalidations (Sue et al., 2007). *Microassaults* are defined as overt and explicit name-calling or behaviors intended to degrade an individual based on their minority status. *Microinsults* are subtle put-downs that may be conducted by the microaggressor unknowingly, but serve as an insult with a clear discriminatory message to the recipient(s) (e.g., telling a woman of color that she is pretty for her race). *Microinvalidations* often appear harmless and may be conducted unknowingly, but serve to deny marginalized individuals' oppressive experiences (e.g., telling a person of color that they speak English very well).

PLWH, especially those of marginalized intersectional identities (e.g., same-gender loving African American men), experience both overt (macroaggressive) and covert (microaggressive) forms of discrimination. While microaggressions have been studied extensively when enacted against people of racial, gender, and sexual minority statuses, little is known regarding microaggressions against PLWH (Eaton et al., 2020). Much of the literature looks at HIV microaggressions experienced by or from the perspectives of PLWH. Less research looks at HIV microaggressions perpetrated by or from the perspectives of people not living with HIV.

A plethora of literature indicates that HIV discrimination is linked to negative emotional, psychological, and physical health behaviors. Much of this literature focuses on macroaggressions against PLWH, and has yet to measure perpetuated microaggressive HIV discrimination (Earnshaw et al., 2013; Eaton et al., 2020). Previous research shows that PLWH report experiencing HIV related microaggressions; however, the extent to which people who are HIV-negative report perpetuating HIV microaggressions is unknown and no scales exist to assess these behaviors (Dale & Safren, 2019; Eaton et al., 2020). Given the lack of available data on perpetuated HIV microaggressions, this study's objectives are threefold. First, we developed a novel scale of HIV-based microaggressions from a sample of Black men who have sex with men (BMSM) who are HIV-negative/unknown status. Second, we conducted a principal components analysis to determine factorability with the scale, including factor loadings. Last, to

contextualize the perpetuated HIV microaggressions measure designed specifically for HIV-negative/unknown individuals, we explored which variables were related to, and served as significant predictors of, perpetuated HIV microaggressions.

METHODS

SCALE DEVELOPMENT

This scale was developed based on an established scale focused on experiences of HIV microaggressions among PLWH (Eaton et al., 2020). This published scale is considered *internalized* HIV microaggressions, as it is focused on PLWH and their experiences with microaggressions. From this published scale, we altered the frame of reference (from experiences of microaggressions to perpetuating microaggressions) in order to create a scale for individuals who are HIV-negative. This adaptation resulted in a scale to assess HIV microaggressions toward PLWH, or *perpetuated* HIV microaggressions. Item adaptation was based on parameters outlined in research by Boateng, Neilands, Frongillo, Melgar-Quiñonez, and Young (2018) that provide a systematic process for developing items. This process, which incorporates a three-step procedure including item development, construction, and evaluation for generating items, was used to guide the adaptation of the scale.

SCALE TESTING

Participants included 148 BMSM from the greater Atlanta, Georgia, area. Participants were recruited from LGBTQ+ dating apps and websites, and participant referrals. Data were collected from July 2019 to March 2020. All participants were consented and the study was approved by the Institutional Review Board. Inclusion criteria included that all participants identified as at least 18 years old, Black/African American, assigned male at birth, and either HIV-negative or unknown HIV status. One participant was removed from analysis because he did not indicate his HIV status during baseline interview. Participants completed surveys as part of a baseline assessment of a larger study researching behavioral interventions to improve pre-exposure prophylaxis (PrEP) uptake among BMSM. All participants received \$30 for their participation.

SCALE FORMATION

Perpetuated HIV Microaggressions. Participants responded to 10 questions related to perpetuated HIV microaggressions. Items included “People living with HIV should limit their sex partners to other people living with HIV” and “I would have hesitations about dating someone who was living with HIV.” Possible scores ranged from *Strongly Disagree* to *Strongly Agree*, with higher scores indicating increased HIV microaggressions. Internal consistency was good (Cronbach’s $\alpha = .81$) and scores were transformed into means (see Tables 2 and 3).

CONVERGENT VALIDITY MEASURES

HIV Prejudice. Participants responded to three questions related to HIV prejudice against PLWH to assess convergent validity. Responses were scored on a six-point

Likert scale, ranging from *Strongly Disagree* to *Strongly Agree*. Items included “People who are living with HIV make me feel nervous” and “People who are living with HIV make me feel afraid.” Internal consistency indicated good reliability (Cronbach’s $\alpha = .93$). Responses were created into means, with higher scores indicating increased HIV prejudice.

HIV Stereotypes. Participants responded to three questions related to HIV stereotypes to assess convergent validity. Responses were scored on a six-point Likert scale, ranging from *Strongly Disagree* to *Strongly Agree*. Items included “Most people who are living with HIV sleep around a lot” and “Most people who are living with HIV use drugs.” Internal consistency indicated good reliability (Cronbach’s $\alpha = .84$). Scores were created into a mean score.

DISCRIMINANT VALIDITY MEASURES

Alcohol Use Disorders Identification Test Short Form (AUDIT-C). Participants completed the three-item AUDIT-C questionnaire designed to assess risky alcohol use within the past 12 months to help assess discriminant validity of the new scale (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). Items are scored from zero to 4, and included questions such as “How often do you have a drink containing alcohol,” with answers ranging from *Never* to *4 or more times a week*. Possible sum scores ranged from 0 to 12, with higher scores indicating increased problematic alcohol use. For men, scores of 4 or more indicated having screened positive for needing further assessment.

Depressive Symptoms. Participants answered the Center for Epidemiologic Studies Short Depression Scale (CES-D 10) to help assess discriminant validity (Björgvinsson, Kertz, Bigda-Peyton, McCoy, & Aderka, 2013). The CES-D 10 contains 10 items, including “I felt depressed” and “I felt lonely,” with responses on a four-point scale ranging from *Rarely or none of the time* to *All of the time*. Possible scores ranged from 0 to 30, with higher scores indicating increased depressive symptomology. Two items, “I was happy” and “I felt hopeful about the future,” were reverse coded. Responses demonstrated adequate reliability (Cronbach’s $\alpha = .85$) and data were created into a sum score.

ADDITIONAL MEASURES

Demographics. Participants were asked their age, gender identity, sexual orientation, highest level of education, income, and marital status; if they have been without health insurance in the past 2 years; their employment (unemployed, working part time, working full time, on disability, student); the last time they had a physical exam by a doctor or a nurse (past 6 months, past year, past 2 years, past 5 years, more than 5 years); and their level of sexual identity outness (definitely closeted/not open about sexual orientation, closeted some of the time and out some of the time, definitely out/open about sexual orientation all of the time).

HIV Testing. Participants were asked an open-ended question regarding number of times they have been tested for HIV in their lifetime.

Sexually Transmitted Infections History. Participants responded to questions regarding if they had ever been diagnosed or treated for chlamydia, gonorrhea, syphilis,

herpes, or genital warts (yes/no). The number of self-reported sexually transmitted infections (STIs) were summed for each participant.

HIV Conspiracy. Participants responded to four items regarding HIV conspiracy beliefs, including “HIV is a manmade virus” and “The government is misleading people about HIV.” Responses were on a six-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*. Internal consistency was deemed good (Cronbach’s $\alpha = .87$) and questions were created into a mean score.

Group-Based Medical Mistrust Scale (GBMMS). Participants responded to four items from the GBMMS suspicion subscale (Thompson, Valdimarsdottir, Winkel, Jandorf, & Redd, 2004). Questions included “People cannot trust doctors or health care workers” and “People should be suspicious of medicine.” Responses were on a six-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*, with higher scores indicating increased medical mistrust. Internal consistence was good (Cronbach’s $\alpha = .84$); therefore, the scale was created into a mean score.

PrEP Stereotypes. Participants responded to six questions related to PrEP stereotypes, including “People on PrEP sleep around” and “People on PrEP are irresponsible.” One question, “PrEP users are making a smart decision to protect their health,” was reverse coded. Items ranged from *Strongly Disagree* to *Strongly Agree*. Internal consistency was adequate (Cronbach’s $\alpha = .65$) and items were created into a mean score.

DATA ANALYSES

Frequencies were conducted to determine descriptive statistics of each variable. Bivariate correlations were conducted to determine relationships between the new scale and existing scales, including convergent and discriminate validity, and a principal components analysis was conducted for factorability. Factorability was analyzed using a direct oblimin rotation. A generalized linear model was fit to determine which variables were associated with perpetuated HIV microaggressions. Analyses were conducted using IBM SPSS v26.

RESULTS

PARTICIPANT CHARACTERISTICS

Participant ages ranged from 20 to 69 years old ($M = 35.61$, $SD = 11.3$). Most participants identified as same-gender loving or gay (71.7%), unmarried (93.2%), and had been without health care in the past 2 years (57.4%). Most had completed at least some college or higher (70.9%), and almost half reported working full time (41.9%). Most (64.2%) did not qualify for needing additional alcohol screenings according to the AUDIT-C, and many (42.6%) had seen a doctor or nurse for medical screenings in the past 6 months (see Table 1 for demographics).

PRELIMINARY TESTS TO DETERMINE FACTORABILITY

Pearson bivariate correlations were conducted with each of the 10 items to determine factorability. All 10 items significantly correlated with at least one other item

**TABLE 1. Sociodemographics, Psychosocial Characteristics, and Health Care Access
Among 147 Black Gay/Bisexual Men Living in the Atlanta, GA, Metro Area**

	<i>n</i>	%
Age	<i>M</i> = 35.61	<i>SD</i> = 11.3
Gender identity	143	96.6
Male	4	2.7
Nonbinary		
Sexual orientation		
Same-gender loving/gay	106	71.7
Bisexual	37	25.0
Heterosexual	2	1.4
Education		
≤ High school	42	28.3
> High school	105	70.9
Income		
\$0–\$10,000	47	31.8
\$11,000–\$20,000	21	14.2
\$21,000–\$30,000	22	14.9
\$31,000–\$40,000	24	16.2
\$41,000–\$50,000	12	8.1
\$51,000–\$60,000	9	6.1
\$61,000 or higher	9	6.1
Marriage status		
Not married	138	93.2
Yes, to a man	8	5.4
Yes, to a woman	1	0.7
Pay for health care		
Private insurance	51	34.5
Public insurance	27	18.2
Self-pay	46	31.1
Other	28	18.9
Without health care in past 2 years	85	57.4
Employment		
Unemployed	27	18.2
Part time	38	25.7
Full time	62	41.9
Disability	9	6.1
Student/other	16	10.8
Last time had a physical exam by a doctor or nurse?		
Past 6 months	63	42.6
Past year	40	27.0
Past 2 years	23	15.5
Past 5 years	12	8.1
More than 5 years	8	5.4
How out about sexual orientation		
Definitely closeted	9	6.1
Closeted some of the time	49	33.1
Definitely out		

(continued)

TABLE 1. (continued)

	<i>n</i>	%
Alcohol use (AUDIT-C score)		
< 4	95	64.2
>= 4	52	35.2
Number of HIV tests in lifetime	<i>M</i> = 3.10	<i>SD</i> = 1.1
Ever diagnosed with an STI	<i>M</i> = 0.72	<i>SD</i> = 1.0
Chlamydia	34	23.0
Gonorrhea	39	26.4
Syphilis	22	14.9
Herpes	7	4.7
HPV/genital warts	4	2.7
Depression (10 or higher)	47	32.1

>.3, indicating factorability (Tabachnick & Fidell, 2001) (see Table 2 for perpetuated HIV microaggression descriptions and Table 3 for item correlations). The Kaiser-Meyer-Olkin value was 0.76 and the Bartlett's test of sphericity was significant ($\chi^2(45) = 754.19, p < .001$), indicating that sampling was adequate and data were suitable for factor analysis. With these results, it was determined that the 10 items were adequate for factor analysis.

TABLE 2. Summary of Enacted HIV Microaggressions Scale

Microaggressions <i>n</i> (%)	Strongly disagree	Somewhat disagree	Slightly disagree	Slightly agree	Somewhat agree	Strongly agree
1. People living with HIV should always disclose their status to sex partners.	19 (12.8)	4 (2.7)	5 (3.4)	7 (4.7)	6 (4.1)	105 (70.9)
2. People living with HIV are responsible for preventing the further spread of HIV.	21 (14.2)	5 (3.4)	6 (4.1)	19 (12.8)	26 (17.6)	69 (46.6)
3. People living with HIV should limit their sex partners to other people living with HIV.	65 (43.9)	15 (10.1)	15 (10.1)	18 (12.2)	11 (7.4)	18 (12.2)
4. Without being told, I can usually tell if someone is living with HIV.	109 (73.6)	5 (3.4)	8 (5.4)	11 (7.4)	9 (6.1)	5 (3.4)
5. I can sense if I meet someone who is living with HIV.	105 (70.9)	8 (5.4)	9 (6.1)	15 (10.1)	4 (2.7)	6 (4.1)
6. I'm good at accurately guessing someone's HIV status.	108 (73.0)	9 (6.1)	6 (4.1)	11 (7.4)	7 (4.7)	6 (4.1)
7. Laws that require people who are living with HIV to disclose their HIV status are important to have.	19 (12.8)	7 (4.7)	9 (6.1)	20 (13.5)	20 (13.5)	71 (48.0)
8. I would have hesitations about having sex with someone who was living with HIV.	36 (24.3)	18 (12.2)	13 (8.8)	22 (14.9)	16 (10.8)	41 (27.7)
9. I would have hesitations about dating someone who was living with HIV.	54 (36.5)	17 (11.5)	15 (10.1)	21 (14.2)	12 (8.1)	28 (18.9)
10. I would have hesitations about being in a long-term relationship with someone who was living with HIV.	55 (37.2)	14 (9.5)	16 (10.8)	20 (13.5)	9 (6.1)	32 (21.6)

TABLE 3. Summary of Correlations, Means, and Standard Deviations for Microaggression Items

	1	2	3	4	5	6	7	8	9	10
People living with HIV should always disclose their status to sex partners.	—									
People living with HIV are responsible for preventing the further spread of HIV.	.47**	—								
People living with HIV should limit their sex partners to other people living with HIV.	.06	.27**	—							
Without being told, I can usually tell if someone is living with HIV.	-.06	.05	.27**	—						
I can sense if I meet someone who is living with HIV.	.05	.03	.28**	.75**	—					
I'm good at accurately guessing someone's HIV status.	.06	.14	.21*	.60**	.62**	—				
Laws that require people who are living with HIV to disclose their HIV status are important to have.	.40**	.38**	.25**	.11	.12	.10	—			
I would have hesitations about having sex with someone who was living with HIV.	.22**	.36**	.53**	.15	.11	.11	.34**	—		
I would have hesitations about dating someone who was living with HIV.	.18*	.26**	.51**	.17*	.14	.14	.26**	.81**	—	
I would have hesitations about being in a long term relationship with someone who was living with HIV.	.12	.27**	.53**	.28**	.19*	.12	.24**	.81**	.89**	—
Mean	5	4.58	2.64	1.78	1.8	1.76	4.56	3.6	3.03	3.07
Standard deviation	1.8	1.8	1.85	1.47	1.43	1.45	1.79	1.97	1.95	2

* $p < .05$. ** $p < .01$.

FACTOR ANALYSIS

Results from the principal components factor analysis with direct oblimin rotation indicated three factor loadings, explaining 73.58% of the total variance with an eigenvalue cutoff of 1. Each factor explained 38.03%, 20.38%, and 15.10% of variance, respectively. Three subscales emerged from the factor analysis; rejection (subscale 1), misconceptions (subscale 2), and judgements (subscale 3) (see Table 4).

RELIABILITY ANALYSIS FOR THE 10-ITEM SCALE

Cronbach's alpha was conducted to determine internal consistency among all 10 items together and the three factors. The total Cronbach's alpha indicated very good reliability ($\alpha = .81$). Factors one (rejection subscale) and two (misconceptions subscale) indicated high reliability ($\alpha = .90$ and $.85$, respectively), and factor three (judgement subscale) indicated fair reliability ($\alpha = .69$). Mean scores were created for each of the factor groups and correlations were conducted to determine direction and strength of relationships. The rejection subscale was significantly positively correlated with the misconceptions subscale ($r(145) = .229, p = .005$) and the judgement subscale ($r(145) = .351, p < .001$). The misconceptions and judgement subscales were not significantly correlated ($r(145) = .094, p = \text{NS}$).

COMPARISON TO OTHER SCALES

To further assess and contextualize the validity of this scale, the researchers conducted correlations with other scores to determine convergent validity and discriminant

TABLE 4. Items, Principal Component Direct Oblimin Rotation Loadings

Item	Factor loadings			Item parameters		
	1	2	3	Mean	Standard deviation	Communalities
1. People living with HIV should limit their sex partners to other people living with HIV.	.695	.334	.233	2.64	1.9	.510
2. I would have hesitations about having sex with someone who was living with HIV.	.905	.149	.368	3.55	2.0	.838
3. I would have hesitations about dating someone who was living with HIV.	.930	.170	.260	2.96	1.9	.869
4. I would have hesitations about being in a long term relationship with someone who was living with HIV.	.941	.244	.213	3.01	2.0	.889
5. Without being told, I can usually tell if someone is living with HIV.	.303	.902	—	1.79	1.5	.827
6. I can sense if I meet someone who is living with HIV.	.223	.899	—	1.78	1.4	.808
7. I'm good at accurately guessing someone's HIV status.	.157	.843	.159	1.78	1.5	.723
8. People living with HIV should always disclose their status to sex partners.	.138	—	.841	4.99	1.8	.725
9. People living with HIV are responsible for preventing the further spread of HIV.	.299	.119	.792	4.55	1.8	.633
10. Laws that require people who are living with HIV to disclose their HIV status are important to have.	.302	.164	.723	4.51	1.8	.536

Note. Bold values indicate factor loading.

validity. These scales included HIV prejudice, HIV stereotypes, depression, and alcohol use scores. HIV prejudice and stereotypes were analyzed to determine convergent validity, while depression and alcohol use were measured to determine discriminant validity. Findings revealed that the microaggressions scale was significantly positively correlated with the HIV prejudice ($r(145) = .383, p < .001$) and HIV stereotypes scores ($r(145) = .52, p < .001$) and was not significantly related to the depression ($r(140) = .138, p = \text{NS}$) or alcohol use ($r(145) = -.027, p = \text{NS}$) scales.

HIV RISK-RELATED ASSOCIATIONS

The perpetuated microaggressions scale was evaluated to determine its relationship to sociodemographic factors (i.e., age, education, how “out” a participant is), HIV conspiracy beliefs, group-based medical mistrust, and PrEP stereotypes. The scale was significantly correlated with education level completed ($r(145) = -.177, p = .03$), HIV conspiracy beliefs ($r(142) = .283, p = .001$), group-based medical mistrust ($r(145) = .223, p = .007$), and PrEP stereotypical beliefs ($r(144) = .296, p < .001$), respectively. The scale was not significantly related to age (see Table 5 for correlations).

HIV MICROAGGRESSION SUBSCALES

All subscales were significantly related to HIV stereotypes and PrEP stereotypes. The rejection subscale was uniquely correlated with age ($r(143) = -.192, p = .02$) and depression ($r(140) = .24, p = .004$) respectively. The misconceptions subscale was correlated with education ($r(145) = -.224, p = .006$), HIV prejudice ($r(145) = .302, p < .001$), HIV conspiracy ($r(142) = .211, p = .01$), and moderately correlated with group-based medical mistrust ($r(145) = .149, p = .07$). The judgement subscale was correlated with HIV conspiracy ($r(142) = .275, p < .001$), group-based medical mistrust ($r(145) = .208, p = .01$) and moderately positively correlated with how out the participant was ($r(144) = .147, p = .08$). No other significant correlations were found between microaggression subscales and other measures (see Table 5 for correlations).

VARIABLES ASSOCIATED WITH HIV MICROAGGRESSIONS IN REGRESSION ANALYSIS

An exploratory generalized linear model (GLM) linear regression analysis was conducted to determine which variables were associated with microaggressions. Predictor variables included variables that significantly correlated with the new perpetuated HIV microaggression scale. Significant predictor variables included HIV prejudice ($\beta = .166, \chi^2(1) = 4.823, p = .03$), HIV stereotypes ($\beta = .307, \chi^2(1) = 18.52, p < .001$), and HIV conspiracy beliefs ($\beta = .133, \chi^2(1) = 5.323, p = .02$) (see Table 6).

DISCUSSION

This study assessed a new 10-item measure to determine the extent to which HIV-negative individuals endorse HIV microaggressions toward PLWH. This scale allows researchers to measure microaggressive beliefs toward PLWH. Further, this new scale may be used to assist in studying and developing novel HIV discrimination reduction approaches, including addressing covert forms of discrimination that manifest

TABLE 5. Significant Correlations Matrix, Means, Standard Deviations

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Microaggressions	—											
Subscale 1	.858**	—										
Subscale 2	.545**	.229**	—									
Subscale 3	.650**	.351**	.094	—								
Age	-.121	-.192*	-.032	.033	—							
Depression	.138	.240**	-.006	-.033	-.140	—						
Education	-.177*	-.144	-.224**	-.010	.142	-.051	—					
Prejudice	.383**	.364**	.302**	.104	-.088	.189*	-.217**	—				
Stereotype	.520**	.452**	.318**	.293**	.041	.158	-.218**	.492**	—			
Conspiracy	.283**	.150	.211*	.275**	-.257**	.025	-.090	.065	.249**	—		
Medical mistrust	.223**	.135	.149	.208*	-.032	.046	-.095	.171*	.325**	.331**	—	
PrEP stereotype	.296**	.238**	.202*	.167*	-.043	.114	-.134	.324**	.483**	.354**	.306**	—
Mean	3.18	3.10	1.78	4.72	35.61	8.02	2.14	1.52	2.18	3.45	2.30	2.47
Standard deviation	1.1	1.7	1.3	1.4	11.3	6.3	1	1.1	1.3	1.7	1.2	1

* $p < .05$. ** $p < .01$.

differently than overt discriminatory behaviors (Eaton et al., 2020). Findings demonstrate three distinctive factors related to microaggressions: rejection (subscale 1), misconceptions (subscale 2), and judgement (subscale 3).

For convergent validity, this scale demonstrated significant positive correlations with questions related to HIV prejudice and stereotypes, similar to other scales measuring HIV stigma and discrimination (Berger, Ferrans, & Lashley, 2001). This finding is similar to other research, in that HIV prejudice (negative emotions related to HIV status) and HIV stereotypes (negative beliefs about PLWH as a group) are often related to HIV discrimination (Earnshaw et al., 2014). This finding is important, as it indicates that HIV prejudice and stereotypes are highly associated with HIV microaggressions. As microaggressions often occur unintentionally, it is important to recognize the interplay of prejudice and stereotypes as they relate to both overt and covert methods of discrimination.

HIV conspiracy beliefs were also significantly associated with perpetuated HIV microaggressions. Few studies have researched the relationship between HIV conspiracy and HIV discrimination, including through perpetuated HIV microaggressions (Bogart et al., 2011). More information regarding the relationship between these two variables is needed, and could be examined in future research.

TABLE 6. Microaggressions Model Predictors ($n = 144$)

Variable	<i>B</i>	<i>SE</i>	Wald	<i>df</i>	<i>p</i> -value
Intercept	2.016	.2993	45.400	1	< .001
HIV conspiracy	0.113	.0488	5.323	1	.020
HIV prejudice	0.166	.0755	4.823	1	.030
HIV stereotype	0.307	.0713	18.520	1	< .001
PrEP stereotype	-0.015	.0882	0.028	1	.870
Group-based medical mistrust	0.001	.066	0.000	1	.990
Education	-0.045	.0726	0.388	1	.530

PrEP stereotypes were significantly correlated with the HIV microaggressions scale as a whole and all three subscales, yet were not associated with HIV microaggressions in the linear regression model. This finding is interesting as it suggests those who are more likely to be microaggressive toward PLWH are also more likely to discriminate against people who are using PrEP. Negative beliefs regarding PrEP use have been well documented; however, their relationships to HIV microaggressions have not (Calabrese, Earnshaw, Underhill, Hansen, & Dovidio, 2014; Golub, Gamarel, & Surace, 2017). Stereotypes and discrimination are, indeed, interrelated; however, this particular relationship has been understudied. Research documenting HIV microaggressions against PLWH, as well as research studying HIV-negative individuals who are at elevated risk for HIV, could be a fruitful avenue of research to pursue.

Subscale findings indicated interesting relationships between various factors not significantly related with the microaggression scale as a whole. For instance, those of younger age and those who endorsed higher depressive symptomology were significantly more likely to reject PLWH based on their HIV status—relationships not found among the other two subscales. Age and depression have been found to be related to HIV discrimination in samples of PLWH; however, information regarding those who endorse discrimination, rejecting potential partners based on HIV status in particular, has been understudied (Boarts, Bogart, Tabak, Armelie, & Delahanty, 2008). Perhaps older participants, particularly those who had witnessed the emergence of the HIV pandemic in the 1980s, are less likely to reject a partner based on HIV status because they had known someone living with HIV. Consistent with the contact hypothesis, those who have met PLWH are less likely to endorse HIV discriminatory beliefs, which may be why older participants were more willing to have a romantic partner living with HIV (Chan & Tsai, 2017; Ibrahim, Kombong, & Sriati, 2019; Norman, 2015). Higher depressive scores were also related to increased rejection of PLWH. Although literature indicates that PLWH are highly susceptible to depression diagnoses, little is known regarding HIV-negative individuals and their depressive status as it relates to determining their romantic partners. Future research could assess the relationships between HIV-negative individuals and correlates to choosing partners based on HIV status.

The misconceptions subscale revealed that people with lower education levels were significantly more likely to believe that they were able to tell who was living with HIV by appearance. These findings are consistent with other research among diverse populations (Janahi, Mustafa, Alsari, Al-Mannai, & Farhat, 2016; Mondal, Hoque, Chowdhury, & Hossain, 2015; Ndibuagu, Okafor, & Omotowo, 2017). Lower education levels were also highly related to HIV conspiracy beliefs and medical mistrust, factors also associated with HIV misconceptions in previous research (Bogart, Wagner, Galvan, & Banks, 2010). Interestingly, the judgement subscale highlights that PLWH are perceived to be responsible for disclosing their status to sexual partners, and is also related to increased medical mistrust and being more “out.” Previous research shows that it is common for people who are not living with HIV to believe PLWH are to blame for contracting the virus (Beaulieu, Adrien, Potvin, & Dassa, 2014; Frieson Bonaparte et al., 2020). High levels of medical mistrust have been shown to be related to a decrease in HIV testing, HIV treatment, and HIV care once diagnosed (Quinn et al., 2018). Furthermore, participants who identified as more out about their sexual orientation were moderately more likely to hold judgmental microaggressions about PLWH. Previous research has shown that men who have sex with men who are more out are less likely to engage in sexual risk-taking (Pitpitan et al., 2016) and have higher autonomy than those who are more

closeted (Legate, Ryan, & Weinstein, 2012). Future studies could assess the existence of judgement and perceived responsibilities of PLWH as they relate to medical mistrust and levels of outness.

LIMITATIONS

This current study is cross-sectional, with analysis of only 147 participants, and is focused primarily on BSM, thereby limiting scale generalizability. A larger sample size would allow for a full, psychometric evaluation utilizing a confirmatory, rather than an exploratory, analysis. While these findings indicate three factors of microaggressions among individuals at elevated risk for HIV, additional studies are needed to evaluate reliability and validity across racial identities, sexual orientations, gender identities/expressions, and ethnicities. Participants were also from the greater Atlanta, Georgia, region; therefore, findings may not be generalizable to individuals from other regions of the United States.

CONCLUSIONS

Limitations notwithstanding, this research expands on the existing microaggressions literature. Firstly, it provides a measurement to assess discrimination from an HIV-negative/unknown standpoint. Additionally, microaggressions, much like other forms of stigma, are complex; increased HIV-discrimination based measurements are important for addressing stigmatizing beliefs and behaviors, however they may present.

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