Stigma and Health

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Gay men living with HIV (MLWH) are often adversely affected by stigma related to both their serostatus and their sexual orientation, and the experience of living with HIV appears to increase feelings of internalized homophobia (IH). Little research attention has focused, however, on factors that may buffer the impact of HIV-stigma and IH on well-being among men living with HIV. Self-compassion, which consists of self-kindness, common humanity, and mindfulness, has been associated with resilience against the negative effects of stigma on well-being. We hypothesized that HIV-stigma would be indirectly related to poorer psychological well-being through increased levels of IH. Moreover, we expected that self-compassion would attenuate the negative effects of HIV-stigma on well-being through IH. Our sample consisted of 90 ethnically diverse gay MLWH. Participants completed an online questionnaire that assessed levels of HIV-stigma, IH, self-compassion, depression, anxiety, and positive and negative affect. After controlling for a variety of sociodemographic, health, and social characteristics, results revealed that more HIV-stigma was indirectly related to more depressive symptoms and anxiety through higher IH. Moreover, self-compassion emerged as a moderator of the indirect association of HIV-stigma on higher negative affect through higher IH, such that this indirect effect was significant for those with low self-compassion, but not for those with high self-compassion. Compassion-focused practices should be explored as a means of increasing resilience among gay MLWH.

Keywords: HIV, stigma, self-compassion, internalized homophobia

The experience of living with a chronic illness is incredibly stressful, especially when diagnosed with an illness that is heavily stigmatized, such as HIV (Mahajan et al., 2008). Specifically, the contraction of HIV is often associated with an individual engaging in behaviors such as intravenous drug use or condomless sexual intercourse that are socially censured. Additionally, for men, a diagnosis of HIV is often inferred to suggest a disclosure of sex with men (Poindexter & Shippy, 2010). Within the context of North America, Europe, and Australia, gay and bisexual (i.e., sexual minority) men have historically borne the disproportionate brunt of the HIV pandemic (Mahajan et al., 2008). Rates of new HIV diagnoses have slowed overall in this population, primarily due to reductions in new incidence among white men and younger men (18–24 years old), whereas rates remain stable and high among black sexual minority men, and have risen 20% among Latino sexual minority men (Centers for Disease Control and Prevention, 2017). Despite these trends, sexual minority MLWH continue to be a highly stigmatized group (Mahajan et al., 2008). Perhaps for these reasons, MLWH report higher rates of IH as well as an stronger impact of IH on psychological well-being compared with seronegative sexual minority men (Cochran & Mays, 2009; Newcomb & Mustanski, 2010). Little research attention has explored factors, such as self-compassion, that may help sexual minority men be more resilient to the negative health effects of HIV-stigma and IH. Self-compassion has gained recent attention as an important protective factor against the stresses and insults of daily life (Neff, Rude, & Kirkpatrick, 2007). In this study, we explore the potential of self-compassion to affect the relationships between negative effects of HIV-stigma, IH, and psychological well-being.

HIV-Related Stigma

HIV-Related Stigma in Sexual Minority MLWH

Stigma refers to a trait or aspect of the self that is "deeply discrediting," or one in which the self is seen as tainted in some way (Goffman, 1963, p. 3). Not only are the methods of HIV transmission highly stigmatized, stigma associated with the virus reduces testing, medical care, and medication adherence among those most at risk (Sayles, Wong, Kinsler, Martins, & Cunningham, 2009). Rhetoric relating an individual's serostatus to their sexual orientation often leads to a conflation of these sources of

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stigma (Flowers & Davis, 2013; Skinta, Brandrett, Schenk, Wells, & Dilley, 2014). Further, recent explorations of the impact of sexual minority status from a public health perspective have highlighted the role that stigma plays in increasing negative affect and decreasing both physical and psychological overall health (Graham et al., 2011; Hatzenbuehler, Phelan, & Link, 2013; Lick, Durso, & Johnson, 2013). Research in population-based samples also suggests that identifying as a sexual minority, particularly a sexual minority living with HIV/AIDS, puts an individual at a higher risk for depression, anxiety, and substance use (Cochran & Mays, 2009).

Most people living with HIV (PLWH) report that they experience some degree of HIV-related stigma (Earnshaw & Chaudoir, 2009). HIV-stigma has been used as an omnibus term to refer to a range of experiences that PLWH have, including perceived stigma (i.e., perceptions or concerns about the attitudes that most people hold or the behaviors most people will engage in toward those with HIV), enacted or personalized stigma (i.e., the perceived consequences or discrimination one will face because of their HIV status), internalized stigma (i.e., having a negative self-image or feeling shameful because one has HIV), and disclosure concerns (i.e., the careful monitoring of and worrying about the disclosure or concealment of one's serostatus; Berger, Ferrans, & Lashley, 2001).

The experience of HIV-stigma is associated with a cascade of behaviors that increase both the spread of HIV and a reduced quality of life for persons living with HIV, including lower medication adherence and reduced contact with medical providers (Sayles et al., 2009), nondisclosure of HIV-status resulting in a greater likelihood of serodiscordant sexual partners (Poindexter & Shippy, 2010), and a restricted social support network of persons knowledgeable of their serostatus (Kalichman, DiMarco, Austin, Luke, & DiFonzo, 2003). HIV-stigma also affects psychological well-being. For example, PLWH who experience higher levels of internalized stigma report feeling more socially isolated, including having less supportive families, and a lack of supportive resources within the HIV community (Lee, Kochman, & Sikkema, 2002). Internalized stigma has also been associated with greater feelings of helplessness, more depression and anxiety, and poorer medication adherence (Earnshaw, Smith, Chaudoir, Amico, & Copenhaver, 2013; Lee et al., 2002). Further, just the anticipation that one will experience stigma because of their positive serostatus is related to psychological distress and shame among sexual minority men (Starks, Rendina, Breslow, Parsons, & Golub, 2013).

IH in Sexual Minority MLWH

IH, or the experience of internalized stigma or shame related to one's sexual orientation, is one of the most researched aspects of stigma experienced by sexual minorities. The stigmatizing thoughts resulting in IH are derived from broader social messages. That is, despite rapid recent changes in the legal protections offered to sexual minorities and same-sex relationships, pathologizing beliefs about sexual minorities are still held by a significant percentage of the heterosexual, majority population in developed nations (Haney, 2016). These beliefs include outdated psychopathological theories associating nonheterosexual orientations to maladaptive families or sexual abuse, religious perspectives asserting these orientations as a chosen form of deviance, or beliefs about the unstable nature of same-sex relationships (Bailey et al. 2016). When applied to the self, these beliefs can be particularly toxic.

IH is associated with a variety of adverse psychological outcomes, such as depression, loneliness, and impaired social relationships (Newcomb & Mustanski, 2010). Further, like all forms of societal bias, IH intersects with counternarratives across generations and racial minority groups. For instance, among white sexual minority men, IH bears a strong direct relationship with age, such that older men raised with more pathologizing perspectives struggle more with their sexuality, whereas younger men are more skeptical of those messages. Within racial and ethnic minority groups in the United States, the rate of change in these beliefs within groups has moved at a different pace than in the white majority, and so age is not a primary source of variance among most samples of sexual minority men of color (e.g., Mansergh et al., 2015). Relatedly, religion has also been associated with both greater and lesser amounts of IH, depending on denominations and cultural factors (Gibbs & Goldbach, 2015; Jeffries et al., 2014; Page, Lindahl, & Malik, 2013).

IH appears to exert a greater or lesser effect based upon an individual's serostatus. There are likely additive effects of self-stigma for men who possess both the identity of being a person living with HIV and also being a sexual minority. Little research attention, however, has focused on the links between HIV-stigma and IH. For example, messages about the inevitability of contracting HIV, the likelihood of challenges in forming relationships, and an awareness of stigma that exists toward HIV within communities of sexual minority men are already associated with the avoidance of HIV testing (Sayles et al., 2009). There are no longitudinal studies allowing for inference on how this relationship changes upon seroconversion, though what is well established is that among MLWH, IH is particularly pernicious. The way that the experience of living with HIV—a chronic, historically life-shortening disease associated with highly stigmatized behaviors—so closely adheres to stigmatizing, homophobic narratives that sexual minority men were likely exposed to prior to seroconversion, can pose particularly steep challenges. Though the specific mechanism is unclear, it may be that living with HIV and assumptions about one's sexual orientation may increase the frequency with which sexual minority men come in contact with homophobic messages.

Further evidence comes from epidemiological research on the impact of minority stress, a construct that measures the broad impact of societal bias toward sexual minorities that includes IH, the expectation of rejection, stress of concealment, and discrimination or violence (Meyer, 1995, 2003). In these studies, MLWH report incrementally greater psychological distress than sexual minority women and men who are not living with HIV, suggesting the context of living with HIV increases the impact of minority stress in some way (e.g., Cochran & Mays, 2009). Relatedly, while rejection sensitivity has become a stronger predictor of psychosocial functioning among HIV-negative sexual minority men than IH, IH still bears an important relationship with well-being among MLWH (e.g., Cohen, Feinstein, Rodriguez-Seijas, Taylor, & Newman, 2016; Rendina et al., 2017). Specific to HIV-related health behaviors, IH leads to reduced medication adherence, a lower frequency of disclosure of one's serostatus to sexual partners, and reduced condom use (Kalichman et al., 2003). Additionally, research primarily conducted with gay men of color further supports the greater burden of IH in the presence of HIV (Amola &

Grimmett, 2015). Finally, while all confounds could not be excluded, large statewide surveys have revealed a greater impact of minority stress on well-being among sexual minority men living with HIV compared against sexual minority men who report being HIV-negative (e.g., Cochran & Mays, 2009).

This relationship between HIV-stigma and IH suggests seroconversion may, in turn, vivify the experience of IH among MLWH, thereby resulting in poorer well-being. MLWH are aware and speak openly of the "felt" relationship between their experiences. In one qualitative study exploring this intersection, gay MLWH described their experience that painful messages associated with IH they had discounted after coming out, including fears that being gay was a disorder posing risks to health and relationships, returned with greater emotional salience after seroconverting (Skinta et al., 2014). In light of these findings, the experience of IH before and after seroconversion appear to differ dramatically, and our hypotheses treat IH among MLWH as following, not preceding, seroconversion. A paucity of research has examined factors that may mitigate the negative impact of HIV-stigma and IH on psychological well-being and foster resilience in sexual minority men.

Self-Compassion for Resilience

A paucity of research has examined factors that may mitigate the negative impact of HIV-stigma and IH on psychological well-being and foster resilience in sexual minority men. One factor that may help promote resilience in sexual minority MLWH is self-compassion. Self-compassion, or extending compassion to oneself during times of pain, perceived inadequacy, or failure (Neff, 2003a), is a relatively new construct in the realm of health psychology. Three components make up the construct of self-compassion, including mindfulness, common humanity, and self-kindness. Mindfulness, in this case, refers to the ability to distance one's self from personalizing the challenges of daily life, and recognize the context in which they occur (Neff, 2003a). For MLWH, this might include recognizing that some challenges to care may be the result of the structure of the local health care system, or that obstacles to disclosure of one's sexual orientation increase the difficulty of maintaining adherence. Common humanity is the awareness that negative aspects of our lives are not unique to us (Neff, 2003a), such that obstacles to serostatus disclosure are shared with everyone who is a sexual minority, and the challenges of adherence affect everyone with a chronic medical condition, regardless of the diagnosis. Finally, self-kindness refers to the ability to feel warmth toward one's self (Neff, 2003a), such as a newly seroconverted individual noting that he is doing the best that he can in pursuing treatment and is just as lovable living with HIV as he was before his seroconversion.

In combination, these factors of self-compassion heighten resilience and reduce negative affect in response to a variety of stressors, such as low self-esteem (Marshall et al., 2015), body dissatisfaction (Albertson, Neff, & Dill-Shackleford, 2015), and posttraumatic stress disorder symptoms (Seligowski, Miron, & Orcutt, 2015). Self-compassion has also been identified as a resilience factor for MLWH. For example, self-compassion was associated with increased HIV-disclosure, medical adherence, and improving overall negative affect in PLWH. In addition, those PLWH with high self-compassion were also more likely to disclose their serostatus to sex partners, and sexual practices and medical treatment were less associated with shame (Brion, Leary, & Drabkin, 2014). Further, in both observational studies and compassion meditation interventions, self-compassion has been associated with reductions in interleukin-6 (Breines et al., 2014; Pace et al., 2009), a marker of inflammation due to stress.

Based on theory and research suggesting that self-compassion serves as a resiliency factor during times of stress, it is plausible to assume that it may buffer the negative effects of HIV-stigma and IH on psychological well-being in men living with HIV. More specifically, HIV-stigma may elicit feelings of IH, which in turn may have deleterious psychological effects. Self-compassion, however, is likely to attenuate the relationship between the sequelae of self-stigmatizing variables on well-being. To date, however, little research has engaged in a systematic examination of self-compassion as a moderator of the links of HIV-stigma, IH, and psychological well-being.

The Present Study

The overarching goal of the present study was to examine self-compassion as a moderator of the links between HIV-stigma, IH, and psychological well-being in a sample of gay MLWH. Our first hypothesis predicted that IH would mediate the relationship between HIV-stigma and increased depressive symptoms, anxiety, negative affect, and decreased positive affect. Our second hypothesis (Figure 1) predicted that self-compassion would moderate the links between HIV-stigma, IH, and psychological well-being. Specifically, we expected that high levels of self-compassion would attenuate the relationship between HIV-stigma, IH, and well-being, whereas low levels of self-compassion would have no effect on this relationship.

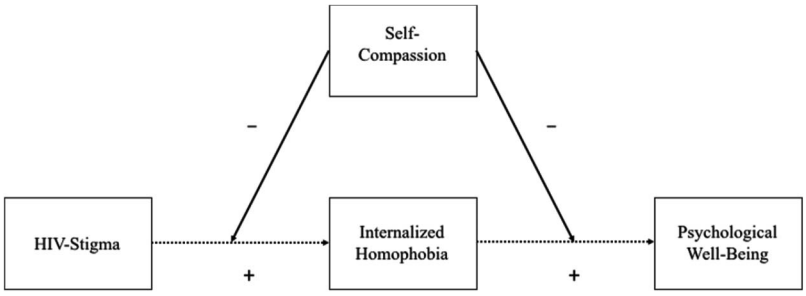

Figure 1. Proposed model.

Method

Participants and Procedures

This study utilized data from a larger study examining the relationships between HIV-stigma and health in men and women living with HIV. All study procedures were approved by the institutional review board at the university where the study was conducted. Participants were recruited through fliers posted in local HIV advocacy centers and social services agencies, through advertisements on public and social media websites, and finally through word of mouth. Recruitment materials directed individuals to call the project office and leave a message expressing their interest in the study. A trained graduate assistant then called interested individuals back and conducted a brief screening interview. To be eligible for the study, participants must have (a) been at least 18 years old; (b) diagnosed as being HIV positive or having AIDS by a health care professional, comfortable reading and responding to a questionnaire in English; (c) had a valid email address and been able to complete an online survey; and (d) had a valid United States. mailing address.

If participants were eligible and agreed to participate in the study, they were sent an email with a link to a survey. The survey took approximately one hour to complete and once a participant completed the survey, they were mailed a $20 gift card. A total of 281 individuals were screened for eligibility in the study. Of these, 245 were eligible to participate in the study and two individuals declined to participate. Thirty-six individuals were ineligible because they were either not diagnosed with HIV/AIDS by a doctor ($n = 27$) or they did not have a valid email address or the ability to complete an online survey ($n = 9$). Of the 243 eligible participants, 195 completed the survey, yielding a completion rate of 80.2%.

Fourteen of the 195 participants were excluded from the final data set due to invalid surveys. Invalid surveys were defined as any survey that was completed in a time period that was markedly shorter than the majority of participants. Given that the average time participants took to complete the survey was 59 min, it was determined that any individuals who completed the survey in less than 20 min ($n = 14$) would be deemed as invalid. Upon visual inspection of the data from these 14 participants, it appeared that after entering demographic information, participants completed the survey by responding with the same answer to all survey questions. We further restricted the sample for the present study to men who indicated that they were exclusively or predominantly gay, yielding a final sample size of 90. Complete sociodemographic characteristics of the participants are presented in Table 1.

Table 1
Participant Characteristics

Measure	Descriptive statistic
Mean age (*SD*)	43.5 (11.7)
Mean years with HIV (*SD*)	12.24 (8.7)
Self-rated health (%)	
Good/very good	62.2
Excellent	17.8
Race (%)	
White	54.4
Black	31.2
Hispanic	12.2
Asian	1.1
Native Hawaiian/Pacific Islander	1.1
Education (%)	
High school diploma	96.7
Some college	54.4
College or graduate degree	24.4
Not employed (%)	65.6
Median income	$15,000-$19,000
Sexual orientation (%)	
Exclusively gay	86.7
Predominantly gay	13.3
Live alone (%)	43.3
In a relationship (%)	47.8

Note. $N = 90$.

Measures

Sexual orientation. Sexual orientation was assessed with a single item that asked participants to place themselves on a continuum including exclusively heterosexual, predominantly heterosexual, bisexual, predominantly homosexual, and exclusively homosexual (gay/lesbian). Because this study was primarily interested in relationships between the HIV-stigma, IH, self-compassion, and psychological well-being, and the numbers of self-reported bisexual or mostly heterosexual men were insufficient for comparison, we restricted the sample to only men who identified that they were predominantly or exclusively homosexual/gay ($N = 90$; for further discussion on the importance of treating gay, bisexual, and mostly heterosexual men as distinct groups, see Vrangalova & Savin-Williams, 2014).

HIV-stigma. The HIV Stigma Scale (Berger et al., 2001), was used to assess participants' perceptions, experiences, and feelings of HIV-related stigma. The HIV Stigma Scale contains 40 items (e.g., "I am not as good a person as others because I have HIV," "Having HIV makes me feel unclean," "Some people who know I have HIV have grown more distant") that are rated on a scale of 1 (*strongly disagree*) to 4 (*strongly agree*). Positive items are reverse scored and scores are summed to create an overall measure of stigma ranging from 40–160 with higher scores indicating greater levels of HIV-related stigma. In the present study, the mean score for overall HIV-related stigma was 93.35 ($SD = 26.3$; range = 46–153; $\alpha = .97$).

IH. IH was assessed using the Internalized Homophobia Scale (HIS; Meyer, 1995). It is a nine-item questionnaire in which participants answer questions that ask them to describe how they feel about their same-sex attractions on a scale ranging from 1 (*never*) to 4 (*often*). Items are summed to create a total score of IH, and scores may range from 9 to 36, with higher scores indicating higher levels of IH. The mean amount of IH reported by MLWH was 14.93 ($SD = 6.9$, range = 9–36, $\alpha = .94$).

Self-compassion. Self-compassion was measured with the Self-Compassion Scale-Short Form (Neff, 2003b). Participants indicate the extent to which the 12 items of the scale are true to them on a scale between 1 (*almost never*) to 5 (*almost always*). This scale includes six subscales that measure the overarching construct of self-compassion: self-kindness, self-judgment, common humanity, isolation, mindfulness, and overidentification. Items from negative subscales are reverse scored. Mean scores are calculated to create an overall scale of self-compassion, with possible

scores ranging from 1 to 5. The average amount of self-compassion reported by MLWH was 3.16 (*SD* = .80, range = 1–5, α = .81).

Depression. Depressive symptoms were assessed using the Center for Epidemiologic Studies-Depression Index (CES-D; Radloff, 1977). The CES-D was designed to measure depressive symptoms among the general population and in chronically ill populations. Participants indicated how often they experienced 20 different symptoms over the past week on a scale ranging from 0 (*rarely or none of the time; less than 1 day*) to 3 (*most or all of the time; 5–7 days*). Positive items were reverse scored, and items were summed to create a total scale score of depressive symptomatology. Scores can range from 0 to 20 with higher scores indicating higher levels of depressive symptomatology. A score of 16 or higher on the CES-D has been identified as a cutoff for being at risk for clinical depression, but in chronically ill populations a cutoff of 19 has been identified as more appropriate (Turk & Okifuji, 1994). In the current sample, 46.7% of MLWH were at risk for clinical depression and the mean level of depression reported by MLWH was 20.19 (*SD* = 14.9, range = 0–59, α = .95).

Anxiety. State levels of anxiety were assessed using the State-Trait Inventory for Cognitive and Somatic Anxiety (STICSA; Grös, Antony, Simms, & McCabe, 2007). The state measure consists of 21 items and asks participants to indicate how they have felt over the past month on a scale ranging from 1 (*not at all*) to 4 (*very much so*). The STICSA includes items measuring both cognitive ("Feel agonized over problems") and somatic ("Feel dizzy") symptoms of anxiety. Total possible scores for the STICSA range from 21 to 84, with higher scores indicating greater anxiety. The mean level of anxiety in MLWH in the current study was 38.71 (*SD* = 15.7, range = 21–84, α = .96).

Positive and negative affect. Positive and negative affect were measured with the Positive and Negative Affect Scale (Watson, Clark, & Tellegen, 1988), which consists of 20 words describing emotions or feelings, including "interested" or "scared." Participants report how often they experienced these feelings during the past week on a scale from 1 (*very slightly or not at all*) to 5 (*extremely*). This scale consists of two subscales: Positive Affect and Negative Affect. Scores of each subscale may range from 10 to 50, with higher scores indicating higher levels of positive and negative affect respective to each subscale. In the present study, the mean amount of positive affect reported by MLWH was 29.92 (*SD* = 11.3, range = 10–50, α = .95) and the mean amount of negative affect was 20.54 (*SD* = 10.0, range = 10–49, α = .94).

Analysis Plan

Covariates were selected by examining bivariate correlations among sociodemographic, social, or health characteristics and the mediator and outcome variables (i.e., IH, depressive symptoms, anxiety, positive and negative affect). For our first hypothesis examining whether internalized stigma mediated the relationship between HIV-related stigma and poorer psychological well-being, we used the mediation model in PROCESS (Hayes, 2013). Bootstrapped confidence intervals were used to measure the significance of the indirect effects of stigma on psychological well-being through IH. Moreover, the completely standardized indirect effect was used to measure the effect size of the indirect effect, with .05 being a small effect, .09 being a medium effect, and .25 being a large effect (Kenny, 2017; Preacher & Kelley, 2011).

For our second hypothesis examining whether the indirect effect of HIV-related stigma on psychological well-being through IH was moderated by self-compassion, we used the moderated mediation model in PROCESS (Hayes, 2013). Interactions were examined between both the predictor and moderator in explaining the mediator, and between the mediator and moderator in explaining the outcome. We again used bootstrapped confidence intervals to examine the conditional indirect effects at 1 *SD* above and below the centered mean of the moderator. To aid in the interpretation of the conditional indirect effects, the predictor and moderator variables were centered prior to conducting the moderated mediation analysis.

Results

Covariates

For the purposes of interpretation, categorical sociodemographic characteristics were dichotomized for the main study analyses. As shown in Table 2, higher IH was associated with

Table 2
Correlation Matrix of Study Variables and Covariates

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. HIV-stigma																	
2. Internalized homophobia	.55***																
3. Self-compassion	−.51***	−.37***															
4. Depression	.56***	.58***	−.71***														
5. Anxiety	.51***	.61***	−.49***	.85***													
6. Positive affect	−.31**	−.39***	.61***	−.66***	−.41***												
7. Negative affect	.55***	.49***	−.63***	.84***	.75***	−.43***											
8. Age (in years)	−.20	−.21*	.36***	−.32**	−.15	.28**	−.32**										
9. Years since HIV diagnosis	−.14	−.12	.28**	−.22*	−.08	.24*	−.23*	.62***									
10. Minority race	−.08	.12	−.11	.04	.02	−.12	−.02	−.33***	−.25*								
11. Annual income	−.11	−.24*	.30**	−.43***	−.36***	.35***	−.28**	.15	.01	−.04							
12. Education	.08	.04	.08	−.09	−.003	.20	−.002	.16	−.01	−.15	.28**						
13. Employed full/part time	−.04	−.11	−.02	−.13	−.24*	−.04	−.13	−.38***	−.30**	.23*	.25*	−.02					
14. Live with someone	.03	−.05	−.06	.03	.02	−.07	.16	−.30**	−.17	.13	.22*	.01	.16				
15. In a relationship	−.18	−.21*	.15	−.16	−.08	.23*	−.11	−.08	−.02	.06	.14	.04	.01	.34***			
16. Self-rated health	−.27**	−.30**	.22*	−.38***	−.34***	.40***	−.32**	−.08	−.12	.02	.18	.03	.16	.08	.19		
17. HIV symptoms	.32**	.35***	−.28**	.49***	.60***	−.29**	.44***	.01	.04	−.08	−.15	−.14	−.29**	−.02	.04	−.44***	

* $p < .05$. ** $p < .01$. *** $p < .001$.

being younger, though this appeared as an artifact of higher IH among younger participants of color, and lower IH among older white participants. IH was also associated with having a lower income, not being in a relationship, having poorer self-rated health, and having more HIV-related symptoms. Depressive symptoms were associated with being younger, having been diagnosed with HIV for a shorter length of time, having a lower income, poorer self-rated health, and more HIV-related symptoms. Anxiety was associated with having a lower income, not being employed, poorer self-rated health, and more HIV-related symptoms. Positive affect was associated with being older, having been diagnosed with HIV for a longer length of time, having a higher income, being in a relationship, better self-rated health, and fewer HIV-related symptoms. Finally, negative affect was associated with being younger, being diagnosed with HIV for a shorter length of time, having a lower income, poorer self-rated health, and more HIV-related symptoms. Thus, these variables were controlled for in all analyses.

Links Between HIV-Stigma, IH, and Well-Being

The total effects of HIV-stigma on more depressive symptoms and greater anxiety were significant ($b = .20$, $SE = .05$, $p < .001$; $\Delta R^2_{adj} = .098$ for depressive symptoms; $b = .19$, $SE = .05$, $p < .001$, $\Delta R^2_{adj} = .083$ for anxiety). After accounting for the mediator, the direct effects of HIV-stigma on both depressive symptoms and anxiety remained significant, although they were reduced in magnitude ($b = .15$, $SE = .05$, $p = .003$; $\Delta R^2_{adj} = .023$ for depressive symptoms; $b = .11$, $SE = .05$, $p = .032$, $\Delta R^2_{adj} = .063$). The indirect effects (IE) of HIV-related stigma on more depressive symptoms and anxiety through increased IH were also significant (IE = .05, $SE = .02$, $CI_{bootstrap} = .01$ to .10 for depressive symptoms; IE = .08, $SE = .03$, $CI_{bootstrap} = .03$ to .15 for anxiety). As expected, HIV-related stigma was related to more IH ($b = .11$; $SE = .03$, $p < .001$) for both depressive symptoms and anxiety models. IH, in turn, was associated with increased depressive symptoms ($b = .44$; $SE = .19$, $p = .022$) and anxiety ($b = .72$; $SE = .20$, $p = .001$). Further, the completely standardized indirect effects indicated a medium effect size for both of the indirect effects ($IE_{conditional\ stimulus\ (CS)} = .11$ for depressive symptoms; $IE_{CS} = .16$ for anxiety).

The total effect of HIV-stigma on negative affect was also significant ($b = .14$, $SE = .03$, $p < .001$, $\Delta R^2_{adj} = .108$). However, the indirect effect of HIV-stigma on negative affect was not significant (IE = .02, $SE = .02$, $CI_{bootstrap} = -.02$ to .07). Although HIV-related stigma was associated with more IH ($b = .11$; $SE = .03$, $p < .001$), IH was not associated with negative affect ($b = .18$; $SE = .15$, $p = .222$). The total effect of HIV-stigma on positive affect was not significant ($b = -.04$; $SE = .04$, $p = .372$, $\Delta R^2_{adj} = .006$). In addition, the indirect effect of HIV-stigma on positive affect through IH was not significant (IE = −.02, $SE = .02$, $CI_{bootstrap} = -.07$ to .02). Similar to the model for negative affect, HIV-related stigma was associated with more IH ($b = .11$; $SE = .03$, $p < .001$), but IH was not associated with positive affect ($b = -.19$; $SE = .18$, $p = .306$). These results indicate that IH partially mediated the relationship between HIV-stigma and depressive symptoms and anxiety, but not positive and negative affect.

Self-Compassion as a Moderator of Stigma, IH, and Well-Being

Self-compassion emerged as a moderator of the links between HIV-related stigma, IH, and negative affect only. Whereas the interaction between the moderator (self-compassion) and the predictor (HIV-related stigma) in explaining the mediator (IH) was not significant ($b = -.03$, $SE = .03$, $p = .275$), the interaction between the moderator and mediator in explaining the outcome of negative affect was significant ($b = -.30$, $SE = .12$, $p = .019$). The conditional indirect effect of HIV-related stigma on negative affect through increased levels of IH was significant at low levels of self-compassion ($IE_{Conditional} = .04$, $SE = .02$, $CI_{bootstrap} = .004$ to .10) but not at average or high levels of self-compassion ($IE_{Conditional} = .009$, $SE = .02$, $CI_{bootstrap} = -.03$ to .05 for average. self-compassion; $IE_{Conditional} = -.01$, $SE = .02$, $CI_{bootstrap} = -.08$ to .02 for high self-compassion). Self-compassion did not emerge as a moderator between HIV-related stigma, IH, and depression, anxiety, or positive affect.

Discussion

Our results suggest that HIV-related stigma may be related to more depressive symptoms and anxiety through increased levels of IH. Further, these results suggested that self-compassion and IH interacted to explain men's negative affect, such that both high and average levels of self-compassion buffered the negative effects of HIV-stigma and IH on negative affect. In contrast, for men with low levels of self-compassion, these relationships remained significant. Overall, these results suggest the importance of self-compassion, even moderate levels of self-compassion, as a contributor to reduced negative affect for MLWH who experience high levels of HIV-related stigma and IH.

Self-compassion may exert its protective effects on MLWH in a number of ways. For example, one component of self-compassion is mindful self-awareness (Neff, 2003a). It is possible that MLWH who are more attuned to the present moment may be better able to acknowledge moments of respite from the expectation of rejection or homophobic messages, and may also be more likely to notice contexts that offer support. Mindfulness may also increase the ability of an individual to depersonalize the cognitive elements of IH (Lyons, 2016).

A sense of common humanity, or the awareness of connection with others, may serve to remind MLWH that there is a broader community of MLWH who share similar experiences, fears, and dreams. This may require opportunities for contact, community support, and social spaces that allow for sharing one's personal experience, and may even increase as a result of some community-based clinics choosing to hire openly HIV-positive outreach staff or promote peer support or buddy systems (e.g., Deering et al., 2009). While there were a variety of sexual minority MLWH in lesbian, gay, bisexual, and transgender TV shows and films from the 1990s through the early 2000s, including the vulnerable transparency of living with HIV shared on reality TV by Pedro Zamora, public models that normalize the experience of living with HIV have become increasingly rare.

Finally, a stance of self-kindness may further buffer the effect of negative affective experiences, as it would allow MLWH to generate warmth toward the self when dealing with stigmatizing

situations regarding their sexual orientation or HIV status. Despite a rapidly changing sociopolitical climate, it remains unlikely that a sexual minority MLWH will have had a parent or caretaker model warm words of encouragement specific to or inclusive of their sexual minority or serological status. A recent study of women living with HIV, for instance, highlights the role of feeling loved in physical and psychological well-being (Cederbaum, Rice, Craddock, Pimentel, & Beaver, 2017).

It is noteworthy that self-compassion served as a buffer not only at high levels, but also at average levels within this sample. For this reason, it may be better to consider a deficit in self-compassion as a specific vulnerability, though currently there is little data upon which to base a determination of how much self-compassion is sufficient for psychological well-being, and goes beyond this limited data set to determine if those with an average level possessed self-compassion at an average akin to other persons living with HIV. In expanded versions of the self-compassion scale used here, those traits opposite to self-compassion are operationalized as overidentification, isolation, and self-judgment (Neff, 2003b). Overidentification refers to the process of both conflating one's external experience with reality, as well as an exaggerated sense of the degree to which noxious thoughts might reflect true aspects of personal experience, much like Beck's cognitive triad of depression (Beck, Rush, Shaw, & Emery, 1987). Isolation considers the extent that one is moving through life alone, with experiences unrelated to others, resulting in subsequent alienation. Finally, self-judgment is not a reference merely to discernment, rather a harsh and judgmental stance toward one's worth and experiences. These traits undermine the experience of self-compassion, and though the current analyses suggest that moderate amounts of these aversive traits are not harmful, excessive amounts may lead to vulnerability. Given the central role of individuation and alienation underlying these factors, measures that increase the visibility and normalization of the experiences common to sexual minority MLWH may powerfully affect the well-being of sexual minority MLWH struggling with their experiences. Similarly, peer-support groups or self-compassion supportive clinical interventions could similarly serve this role.

Aligned with our hypothesis, HIV-stigma was indirectly related to increased levels of depression and anxiety through increased IH. Studies on the experiences of sexual minority men, specifically, affirms a link between IH and both a fourfold increase in the rate of depression, as well as a greater rate of panic disorders (Cochran & Mays, 2009; Graham et al., 2011). Among sexual minority MLWH, population samples suggest all of these findings are more marked (Cochran & Mays, 2009). For these reasons, it is difficult to be certain why self-compassion mitigated the impact of negative affect but not related factors such as depressive symptoms or anxiety. It may be that our measures of depressive symptoms and anxiety contain a number of somatic items that could be elevated due to reasons unrelated to affect, such as medication side effects of illness.

Another possibility is that self-compassion could impact affective experiences associated with IH differently than more global negative appraisals related to depression or anxiety (Newcomb & Mustanski, 2010). In fact, the IHS, inversely related to self-compassion, consists entirely of negative cognitions regarding one's sexual orientation, so it is the affective impact of those cognitions that is being altered, not the thoughts themselves. This is consistent with some contemporary perspectives in psychotherapy, such as acceptance and commitment therapy's emphasis on changing how one relates to their thoughts, and not the thoughts themselves (ACT; Hayes, Strohsal, & Wilson, 1999). ACT-derived measures of experiential avoidance—thoughts about one's ability to experience or handle strong negative emotions—were observed to change in advance of shifts in HIV-related stigma among a small sample of sexual minority MLWH who participated in a stigma-reduction pilot study (Skinta, Lezama, Wells, & Dilley, 2015). Finally, research into self-compassion among sexual minorities has rarely been examined and it is not clear whether the pattern in this sample is representative of all sexual minorities, or if it is specific to the experience of sexual minority MLWH.

Limitations

The present study has several limitations that should be noted. First, our study used a convenience sample of gay MLWH who completed an online survey. Individuals who participated may reflect a subset of MLWH that had greater access to material resources (i.e., owned a computer, had Internet access), or that had a positive impression or past experience participating in research. However, efforts were made to recruit participants from a wide variety of sociodemographic and ethnic backgrounds. Finally, our study was cross-sectional self-report data, so we cannot establish causal relationships or temporal ordering between our predictor, mediator, moderator, and outcome variables (Fiedler, Schott, & Meiser, 2011). However, research does suggest that for MLWH, the experience of IH may have a more adverse effect on psychosocial well-being (e.g., Cochran & Mays, 2009; Wagner, Brondolo, & Rabkin, 1996). Moreover, the combination of HIV-stigma and IH has been related to poorer psychological well-being among men of color, and among older samples (e.g., Amola & Grimmett, 2015; Newcomb & Mustanski, 2010). Additionally, a number of recent pilot studies suggest that self-compassion can be increased through existing manualized interventions, which subsequently are associated with improvements in markers of psychological and physiological health (Cosley, McCoy, Saslow, & Epel, 2010; Dodds et al., 2015; Jazaieri et al., 2014; Neff & Germer, 2013; Stellar, Cohen, Oveis, & Keltner, 2015). Future research should aim to examine longitudinal designs that can assess the longer-term impact of HIV-stigma on internalized feelings of shame and well-being. Moreover, future research should examine how self-compassion interventions may affect this relationship.

Conclusions

Despite the well-researched sources of stigma and stress that affect sexual minorities, identifying resilience factors is a relatively new area. In recent years, self-compassion has gained attention as a source of resilience and well-being. The results of this study have important implications for helping MLWH who struggle with IH. The findings suggest that one effective strategy of improving the negative affect of MLWH would be a greater dissemination of interventions known to increase self-compassion, such as compassion-focused therapy (Gilbert, 2009), mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2013), or ACT (Hayes, Strosahl, & Wilson, 2012). While one might indirectly infer that an increase in self-compassion and subsequent

decrease in the impact of IH on one's health behaviors would lead to beneficial health outcomes, prospective tests of compassion interventions have been limited. Future studies that might link compassion interventions to reductions in viral load would strengthen the arsenal of existing behavioral health interventions to improve the wellness of MLWH.

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