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Homophobia and Communal Coping for HIV risk management among Gay Men in Relationships

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Abstract

Men who have sex with men (MSM) remain disproportionately affected by the HIV epidemic in the US and estimates suggest that one to two-thirds of new infections occur among main partners. Previous research has focused on individual MSM and their risk for HIV, yet couples' ability to manage risk has been largely understudied. In particular, the role that homophobia plays in shaping the ability of gay male couples to cope with HIV risk is currently under-studied. A sample of 447 gay/bisexual men with main partners was taken from a 2011 survey of gay and bisexual men in Atlanta. Linear regression models were fitted for three couples' coping outcome scales (outcome efficacy, couple efficacy, communal coping) and included indicators of homophobia (internalized homophobia and homophobic discrimination). Findings indicate that reporting of increased levels of internalized homophobia were consistently associated with decreased outcome measures of couples' coping ability regarding risk management. The results highlight the role that homophobia plays in gay male couples' relationships and HIV risk, extending the existing literature in the field of same-sex relationships as influenced by homophobia.

Keywords

United States; HIV; homophobia; relationship functioning; MSM; gay couples

Introduction

After more than three decades of the US HIV epidemic, men who have sex with men (MSM) remain disproportionately affected, representing approximately 63% of all new infections in 2010, yet accounting for only 2% of the US population (CDC, 2012). MSM are the only risk group that has experienced an increase in HIV incidence in the US. From 2008 to 2010, new HIV infections increased 22% among young MSM (aged 13-24), and increased 12% among MSM overall (CDC, 2012). Although research and programmatic efforts have largely focused on the individual risk factors associated with HIV acquisition among MSM, a growing body of research has shown the importance of examining HIV in the context of same-sex male relationships (Darbes, et al., 2012; Gomez, et al., 2012; Mitchell & Petroll, 2013; Sullivan, et al., 2009). Recent modeling work suggests that between one to two thirds

of new HIV infections among MSM occur among main partners in a relationship (Goodreau, et al., 2012; Sullivan, et al., 2009). As reported by Sullivan et al. (2009), high rates of HIV transmission between main partners are shaped by three synergistic processes: a higher number of sexual acts with main partners, a higher likelihood of receptive anal intercourse with main partners, and lower levels of condom use for anal intercourse with main partners, yet research and programs remain largely focused on individuals.

The role of the male dyad in shaping HIV risk has received considerable research attention recently. Previous studies have examined how relationship characteristics, including relationship duration, perception of commitment, communication style, and partner-provided support are associated with HIV risk among same-sex male couples (Darbes, et al., 2012; Darbes, Chakravarty, Neilands, Beougher, & Hoff, 2014; Gomez, et al., 2012; Hoff, Chakravarty, Beougher, Neilands, & Darbes, 2012; Mitchell, 2013, 2014; Mitchell & Petroll, 2013; Mustanski, Newcomb, & Clerkin, 2011). Some studies have shown that increased HIV-specific social support from main partners lessens the likelihood of engaging in unprotected anal intercourse (UAI) with outside partners, likely to be influenced by reduced stigma and increased comfort in discussing HIV with partners (Darbes, et al., 2012; Darbes, et al., 2014). In these studies HIV-specific social support was measured by a modified version of the Social Provisions Scale (SP), with scale items adapted to measure partner support for participation in HIV prevention behaviors (e.g. “my partner depends on me for help when it comes to practicing safer sex”) (Darbes, et al., 2012). However, this finding was not upheld for general social support (as measured by the Social Provisions Scale (SP) (Cutrona and Russell 1987)), possibly because increased emotional support includes a greater tolerance for risky behavior, suggesting that it is important to consider the *type* of support provided by main partners in relation to HIV risk (Darbes, et al., 2012).

Additionally, much attention has been paid to the role that sexual agreements have in shaping HIV risk among same-sex male couples (Gass, Hoff, Stephenson, & Sullivan, 2012; Gomez, et al., 2012; Hoff, et al., 2012; Mitchell, 2014; Mitchell & Petroll, 2013). Among a sample of 732 MSM in main partnerships, 91% of respondents reported having a sexual agreement with their main partner, while 16% of those with an agreement reported ever having broken it (Gass, et al., 2012). Additionally, Hoff et al., 2012 found that among broken sexual agreements leading to UAI with an outside partner, over half of outside partners’ HIV statuses were unknown or discordant (Hoff, et al., 2012). Recent work demonstrates that men with a main partner have significantly higher odds of perceiving themselves to be at low risk of HIV infection, higher odds of being very confident they will remain HIV-negative, and lower odds of testing for HIV in the past 6 months (Stephenson et al., 2014). However, the same study reported that partnered men who reported they were in an open relationship had higher odds of recent HIV testing, lower odds of perceiving low risk of HIV infection, and lower odds of being very confident in remaining HIV-negative, relative to those who reported monogamy (Stephenson et al., 2014). Collectively these results point to several elements of same-sex relationships that may influence HIV risk. Men in relationships may test less frequently for HIV and be more likely to have condomless sex with their main partner due to a perception that relationships are protective of HIV risk, due in some part to the historical messaging of HIV risk as linked to casual sex. Condomless sex

may be a way for couples to show greater intimacy and trust. Starks et al., (2014) report that for HIV-negative partners, levels of relationship commitment are positively associated with the odds of engaging in both risk taking and strategic positioning sexual behaviors. The HIV risk associated with these behaviors is mitigated by the context of the relationship sexual agreement, adherence to the agreement, and discussions around sero-status and HIV testing. If couples have not formed a sexual agreement, do not feel able to adhere to agreements or discuss their sero-status or HIV testing history and intentions, then these behaviors are operating in the context of unknown risk of HIV acquisition. Therefore, central to the ability of a couple to work together to manage the risk of HIV in their relationship is their ability to communicate on their attitudes and desires for HIV prevention strategies.

The inability to communicate around HIV within a relationship may be shaped by stress, and one potential source of stress for same-sex couples is homophobia. Homophobia can be experienced externally as discrimination from others based on perceived sexual orientation (homophobia discrimination), or internally as struggles with same sex attraction and sexual orientation (internalized homophobia (IH)). Meyer and Dean (1998) defined IH as a lesbian, gay or bisexual (LGB) individual's direction of societal anti-homosexual attitudes toward the self. High levels of internalized homophobia have been shown in the literature to have an adverse impact on health among MSM, with significant associations with depression, anxiety, fear, and nondisclosure of sexual orientation, all of which have the potential to increase HIV risk (Choi, et al., 2013; Jeffries, et al., 2013; Ross, Berg, et al., 2013; Ross, Kajubi, et al., 2013; Santos, et al., 2013; Shoptaw, et al., 2009; White & Stephenson, 2014). Similarly, in a study of MSM in 38 countries, higher levels of IH were found to be most strongly associated with increased sexual risk taking and decreased HIV testing, associated with fear, stigmatization, inability to access condoms, and a lack of sexual control (Ross, Berg, et al., 2013). The effects of the stress resulting from internalized homophobia can be mitigated or exacerbated, depending on the composition of MSM social networks. Research has shown HIV risk among MSM to be influenced by social networks through the provision of access to culturally appropriate services, role models, and social support in the community (Stephenson, et al., 2013).

Given recent findings of the high proportion of new HIV infections that are attributable to main partners in same-sex male couples, it is imperative to develop efficacious, dyadic focused interventions. Foundational to these interventions is the ability for same-sex male couples to communicate openly and act to manage the risk of HIV in their relationship. However, largely missing from the literature to date is an understanding of how the experience of homophobia (experienced either externally or internally) is associated with the ability of same-sex male couples to cope with HIV risk. The purpose of this study is to address this gap in the literature by examining how the experiences of internalized homophobia and homophobic discrimination are associated with relationship functioning and HIV risk among same-sex male couples in the US.

Methods

Participants and Procedure

Study participants were recruited in the Atlanta Metropolitan area from September – December 2011 using venue-based sampling. In venue-based sampling, sampling occurs within prescribed blocks of time at specific venues (Stephenson, et al., 2013). Venue-based sampling uses a sampling frame of venue-time units to target hard-to-reach populations. Venue-time units consist of locations and times where there is a higher prevalence of the target population as compared to the general community (Stephenson, et al., 2013). The venue sampling frame for this study consisted of over 160 venue-time units and included a variety of gay-friendly venues in the Atlanta area to target a diverse group of gay and bisexual men (Stephenson, et al., 2013). At least one recruitment event was selected per day using a randomized computer program that assigned venue-time units on a monthly basis.

Venues consisted of a variety of gay-friendly locations, including Gay Pride events, gay fundraising events, gay bars, bathhouses/sex clubs, and an AIDS service organization (the largest HIV testing center serving MSM in Atlanta). During recruitment, study recruiters approached every n th man (n varied between one and three) who crossed an imaginary line drawn by the recruiters at the venue (Stephenson, et al., 2013). The man was asked if he would be interested in finding out if he was eligible for a research study, and if so, a series of eight questions were asked to determine his eligibility, including his sexual orientation, recent sex (< six months) with a man, age, race, and place of residency (Stephenson, et al., 2013). Personal palm-held computers were used to record all responses for eligibility criteria. If determined eligible, a short script was read to explain how to complete the 20-minute self-administered, web-based survey (at home or on-site at specific venues) and a card was provided containing the web address and a unique identifier to link recruitment data to survey data. Compensation for survey completion was provided in the form of a \$30 gift card. The survey was completed by a total of 1,075 men. Approximately half (49.3%) of the 1,075 men who completed the survey reported having a main partner, 447 of which were included in the final analysis due to complete data on all covariates of interest (Table 1).

Measures

Demographic and Background Characteristics—The survey contained questions on demographic characteristics including age, race/ ethnicity, employment status, measures of current relationship status, recent occurrence of anal sex with a male partner (past six months), and recent (last 12 months) experience and perpetration of intimate partner violence (IPV).

Communal Coping—Three scales examining communal coping were considered in this analysis: decision-making around outcome efficacy to reduce HIV threat, decision-making around couple efficacy to reduce HIV threat, and decision-making around communal coping to reduce HIV threat (Salazar, Stephenson, Sullivan, & Tarver, 2011). Development and validation of the scales has been described previously (Salazar, Stephenson, Sullivan, & Tarver, 2011).

Outcome efficacy is defined as the belief of the couple about the effectiveness of communicating and making decisions together (communal coping) for healthy behavioral change (Salazar, et al., 2011). The stem question used for the decision-making around outcome efficacy scale was, “Making decisions together is an effective strategy for?” (Salazar, et al., 2011). Respondents were asked to respond to seven statements following the stem question (e.g., “...using condoms when we have sex with each other,” “...limiting the number of other sex partners,” and “...using condoms when either of us has sex outside our relationship.”) with response options ranging from “Strongly disagree” to “Strongly agree” on a five-point Likert scale, with a potential scale range of 7-35 (Salazar, et al., 2011). A higher score indicated higher levels of outcome efficacy to reduce HIV threat (Salazar, et al., 2011).

Couple efficacy is defined as the confidence a couple has in believing that they can communicate and make decisions together (communal coping) to reduce a health threat (Salazar, et al., 2011). The stem question used for the decision-making around couple efficacy scale was, “How confident are you that you and your partner can make decisions together to?” (Salazar, et al., 2011). Respondents were asked to respond to the same seven statements (referenced above), with response options ranging from “Not at all confident” to “Very confident” on a five-point Likert scale, with a potential range of 7-35. A higher score indicated higher levels of couple efficacy to reduce HIV threat (Salazar, et al., 2011).

Communal coping includes the constructs of outcome efficacy and couple efficacy, as described previously, to measure how couples engage in joint efforts to make decisions to reduce health threats (Salazar, et al., 2011). The stem question used for the decision-making around communal coping scale was, “To what extent do you and your partner make decisions about?” (Salazar, et al., 2011). Respondents were asked to respond to the same seven statements referenced above, with response options ranging from “Never” to “Always” on a five-point Likert scale, with a potential range of 7-35. A higher score indicated greater frequency in engaging in communal coping strategies (Salazar, et al., 2011).

Internalized Homophobia and Homophobia discrimination—*Internalized homophobia* was measured using the Gay Identity Questionnaire (Brady & Busse, 1994). Internalized homophobia was assessed using a five-point Likert scale (strongly disagree to strongly agree) for a series of 20 statements (e.g., “I am very proud to be gay/bisexual and make it known to everyone around me”). The theoretical range of the scale from -40 to +40 was adjusted to 0 to 80 for ease of conceptualization. A score of 0 on the scale was suggestive of homosexual openness and pride, a score of 40 suggested neutrality, and an increasing score from 40 to 80 suggested increased internalized homophobia and decreased homosexual pride (Stephenson, et al., 2013).

Homophobic discrimination was measured using a scale of 11 yes/no statements (e.g., “Due to your sexual orientation have you ever been made fun of as an adult?” and “Have you ever experienced job discrimination due to your sexual orientation?”) (Stephenson, et al., 2013). An increasing score was suggestive of increased experience of homophobic discrimination.

Statistical Analysis—Analysis considered the following control variables: age (categorical variable), race/ethnicity (white, black, other), education level (high school or less, some college/2 year degree, college degree or more), employment status, HIV status, any recent IPV (defined as physical or sexual violence in the last 12 months), same race as main partner, same sexual orientation as main partner, and main partner age difference (5+ years older, same age or 1-4 years older, 1-4 years younger, 5+ years younger). The data was analyzed using STATA 12. For each of the three outcomes of interest, a linear model was fitted.

Results

The final sample of 447 participants had a mean age of 35.7 years (18-71 years) and was 55% White, 31% Black/African-American, and 14% other (due to very small numbers, all other race/ ethnicities are categorized together under the heading “other”). Over half of the sample (55%) reported a college education or higher, while 29% reported some college or a two-year degree, and 16% reported a high school education or less. Twenty-eight percent of participants reported recent (< 12 months) IPV and the majority of participants reported homosexual/gay sexual orientation (93%), current employment (83%), and a negative HIV status (79%).

In reporting characteristics of participants’ main partners, 89% reported that they were the same sexual orientation as their main partner and 69% of participants reported that they were the same race. Of those reporting a different race to their partner, all were White / Black/ African-American couples. The mean age difference between partners was five years and the mean relationship duration was 35 months.

At the bivariate level (Table 2), those who were older (45+ years) reported higher mean scores on the communal coping scale (Mean: 32.0; SD: 4.8), compared to those who were younger (35-44 years) (Mean: 30.9; SD: 5.7). Also on the communal coping scale, Black/ African-American men reported lower mean scores (Mean: 29.7; SD: 6.5) compared to White men (Mean: 31.3; SD: 5.1). Those who reported gay sexual orientation also reported higher mean scores on the couple efficacy scale (Mean: 31.2; SD: 4.9) compared to bisexual men, while those who reported that they were bisexual reported lower mean scores on the same scale (Mean: 29.5; SD: 4.8) compared to gay men. Those who reported any recent IPV also reported lower mean scores on both the couple efficacy scale (Mean: 29.6; SD: 5.5) and the communal coping scale (Mean: 29.8; SD: 6.2) than those with no recently reported IPV. Those who reported that they were not the same sexual orientation as their main partner also reported lower mean scores on both the couple efficacy scale (Mean: 29.5; SD: 5.9) and the communal coping scale (Mean: 28.9; SD: 7.1) than those who reported being the same sexual orientation as their partner. Those who reported higher levels of IH also reported lower mean scores on all three scales: couple efficacy (Mean: 29.7; SD: 5.3), communal coping (Mean: 29.6; SD: 6.3), and outcome efficacy (Mean: 30.5; SD: 5.5) than those with lower levels of IH. Those who reported an increase in experience of homophobic discrimination also reported lower mean scores on the couple efficacy scale (Mean: 30.6; SD: 5.5) than those with lower levels of homophobic discrimination. No variation in

reporting was found by education level, employment status, HIV status, same race as main partner, social network composition, or main partner age difference.

Table 3 shows the results of the final adjusted models. After controlling for all factors, IH was consistently associated with measures of relationship quality: Participants who reported higher scores on the IH index (suggesting increased internalized homophobia) reported lower mean scores on all three outcome variables: outcome efficacy—3rd tertile (Beta: -1.84; SE: 0.67), couples efficacy—2nd tertile (Beta: -1.37; SE: 0.57) and 3rd tertile (Beta: -2.73; SE: 0.59), and communal coping—3rd tertile (Beta: -1.57; SE: 0.74). The experience of external homophobic discrimination was not significantly associated with any of the three measures of communal coping. Interaction terms were fitted to assess interactions between internalized homophobia and race and IH and homophobic discrimination, and neither were significant.

Discussion

Respondents who reported higher levels of IH reported significantly lower mean scores on all three outcome scales: outcome efficacy (the belief of the couple about the effectiveness of communicating and making decisions together), couple efficacy (the confidence a couple has in believing that they can communicate and make decisions together), and communal coping (how couples engage in joint efforts to make decisions). The results from this study are consistent with findings from prior studies that show internalized homophobia to be associated with HIV risk behavior among individuals, including depression/hopelessness, lower levels of HIV testing, and lower levels of perceived control over safe sex (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Jeffries, et al., 2013; Ross, Berg, et al., 2013; Santos, et al., 2013). However, the results presented here suggest for the first time that IH may also affect behaviors *within couples*, by reducing an individual's ability and or willingness to communicate and participate in HIV prevention strategies with his partner.

While previous research has illustrated that the experience of *external* homophobia is significantly associated with HIV risk behaviors among MSM (Choi, et al., 2013; Hatzenbuehler, et al., 2008; Ross, Berg, et al., 2013), the finding that IH is significantly associated with all three communal coping outcomes suggests that there may be an influence of both internal and external homophobia on relationship functioning regarding HIV prevention among same-sex male couples. However, in the current analysis, reports of homophobic discrimination were not associated with the communal coping outcomes.

Previous work examining the role of IH on individual HIV risk prevention behavior has shown that IH can be negatively related to men's awareness of the services offered by HIV prevention organizations (Huebner et al., 2002). In their analysis of 89 gay and bisexual men who participated for a single session in a group-structured community-based HIV preventive intervention, Huebner et al., (2002) showed that pre- to immediate post-intervention change in perceptions of condom use self-efficacy was inversely related to IH, but was unrelated to perceived efficacy in communicating about condoms. The authors suggest that high levels of IH may alter an individual's perception of their risk of acquiring HIV, the consequences of HIV infection or their perceived ability to enact HIV prevention efforts. We found here that

men reporting higher levels of IH also reported impaired communal coping around HIV prevention; the contrast of this finding to those of Huebner et al., is likely due to our use of more nuanced MSM-focused measures of communal coping. In their study of gay and bisexual male youth, Hart and Heimberg (2005) illustrate that social anxiety is a risk factor for unprotected anal intercourse, above and beyond the effects of communication about condom use and social support, and the results presented here point to the role of the stress created by feelings on internal homophobia in reducing the perceived ability to enact HIV prevention with a male partner.

The analysis did not consider the role of sexual agreements in shaping a couple's ability to work together on HIV prevention strategies. It is possible that couples who have communicated on and developed a sexual agreement may have increased likelihood of being able to communicate on and enact HIV prevention efforts in their relationship. In their longitudinal qualitative study of HIV-discordant same-sex male couples, Beougher et al., (2012) showed that nearly every couple interviewed reported a safety agreement and that negotiating them usually involved establishing a level of acceptable risk, determining condom use, and employing other risk-reduction techniques. Additionally, a study of condom decision-making process among gay male couples by Campbell et al., (2014) illustrated two types of decision-making processes: explicit processes in which discussions around sero-status and condom use were held and implicit processes in which condom use and sero-statuses were assumed. However, in their study of gay male couples in San Francisco, Hoff et al., (2010) report that the majority of couples across agreement type and serostatus groups were motivated to make their agreements by the desire to strengthen or improve their relationship and not to prevent HIV infection. Similarly, findings from an internet-based study of same-sex male couples by Mitchell (2014) revealed that couples discussed their HIV status before having UAI but established their agreement after having UAI, suggesting that agreement formation is not necessarily HIV prevention driven. If IH is associated with decreased communal coping around HIV prevention, it is possible that similar associations may be found with the formation, communication of and adherence to sexual agreements. Stress induced by internalized homophobia may affect attitudes towards relationships and relationship satisfaction in addition to attitudes towards participation in HIV prevention. Further analysis is needed to establish relationships between IH and sexual agreements and the extent to which agreements mediate the effect of IH on communal coping.

As previous work has shown that IH may be associated with poor mental health outcomes or the perceived self-efficacy of HIV participating in HIV prevention strategies, IH may lead to poor relationship functioning and difficulty communicating about HIV risk behavior by creating feelings of low self-esteem or self-efficacy among individuals, reducing their perceived ability to enact change, the perceived worth of protecting themselves or their partner from HIV, or creating problems in desire or ability to communicate with their partner around issues of HIV prevention.

Limitations

The results of the present study should be interpreted in the context of several limitations. The measure of IH used is taken from the Gay Identity Questionnaire (Brady & Busse, 1994), intended to measure an individual's comfort with their sexual orientation. There are more recent measures of IH that have been developed, namely Currie et al., (2004) Short Internalized Homonegativity Scale. The data presented represent only one member of the male dyad and include only the perspective of one partner in the relationship, which is a significant shortcoming when exploring couple' relationship-coping mechanisms. The study needs to be replicated with dyadic data to fully understand how the experiences of both members of the couple are associated with their coping strategies around HIV prevention. Additionally, the cross-sectional nature of the study design does not allow for the inference of causal relationships between homophobia and relationship functioning.

Conclusion

The current study results highlight the role that IH plays on same-sex male couples' relationships and HIV risk, extending the existing literature in the field of same-sex relationships as influenced by homophobia. The results show that men who experience IH have reduced belief in the efficacy of working with their partner on HIV prevention, reduced perceptions of confidence in working with their partner on HIV prevention, and reduced perceptions of ability to work with their partner on HIV prevention. The results illuminate the clear need for a greater focus in understanding how internal homophobia affects relationship functioning and health outcomes among same-sex male couples. In particular, HIV prevention efforts need to consider how feelings of internalized homophobia can be messaged and incorporated in prevention strategies. This information is critical to facilitate the development of effective interventions to reduce stress and improve health among same-sex male couples in the US.

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Table 1

Background characteristics of 447 gay and bisexual men who self-report having a main partner

Respondent Characteristics	% (n) N = 447	Mean/Range
Age		35.7(18-71)
18-24	18% (83)	
25-34	30% (132)	
35-44	30% (138)	
45+	22% (103)	
Race		
White	55% (246)	--
Black	31% (138)	--
Other	14% (63)	--
Education Level		
High School or Less	16% (69)	--
Some College or 2-year Degree	29% (131)	--
College or More	55% (247)	--
Employment Status		
Employed	83% (369)	--
Unemployed	17% (78)	--
Sexual Orientation		
Gay	93% (416)	--
Bisexual	7% (31)	--
HIV Status		
Negative/DK	79% (351)	--
Positive	21% (96)	--
Recent IPV (any)		
No	72% (323)	--
Yes	28% (124)	--
Same Race as Main Partner		
No	31% (138)	--

Table 2

Mean scores on scales measuring outcome efficacy, couple efficacy and communal coping by background characteristics among a sample of 447 gay and bisexual men who self-report having a main partner

Yes	69% (309)	--		
Same Sexual Orientation as Main Partner				
No	11% (51)	--		
Yes	89% (396)	--		
Main Partner Age Difference				
MP 5+ years older	25% (110)	--		
MP same age or 1-4 years older	28% (126)	--		
MP 1-4 years younger	22% (100)	--		
MP 5+ years younger	25% (111)	--		
Internalized Homophobia Index		16.3 (0-57)		
1 st Tertile (1%-33%)	29% (132)			
2 nd Tertile (34%-66%)	36% (160)			
3 rd Tertile (67%-100%)	35% (155)			
Homophobic Discrimination Index		5.8 (0-11)		
1 st Tertile (1%-33%)	32% (142)			
2 nd Tertile (34%-66%)	28% (127)			
3 rd Tertile (67%-100%)	40% (178)			
Couples Coping Scales:				
Couple Efficacy	--	31.1 (7-35)		
Communal Coping	--	30.7 (7-35)		
Outcome Efficacy	--	31.6 (7-35)		
	(n) N = 447	Outcome Efficacy Mean/SD	Couple Efficacy Mean/SD	Communal Coping Mean/SD
Age				
18-24	83	30.9 (5.3)	30.7 (4.6)	30.0 (6.4)
25-34	132	31.3 (6.2)	30.8 (5.6)	30.3 (6.4)
35-44	132	31.7 (5.0)	31.1 (4.7)	30.9 (5.7)
45+	100	32.3 (4.6)	32.0 (4.3)	32.0 (4.8)
Race				
White	246	32.0 (4.7)	31.4 (4.6)	31.3 (5.1)
Black	138	31.0 (6.2)	30.5 (5.0)	29.7 (6.5)
Other	63	31.4 (5.7)	31.3 (5.5)	30.6 (7.1)
Education Level				
High School or Less	69	31.3 (5.4)	31.1 (5.1)	30.6 (5.5)
Some College or 2-year Degree	131	31.6 (5.4)	30.4 (5.2)	29.9 (6.7)

	(n) N = 447	Outcome Efficacy Mean/SD	Couple Efficacy Mean/SD	Communal Coping Mean/SD
College or More	247	31.7 (5.4)	31.5 (4.6)	31.2 (5.6)
Employment Status				
Employed	369	31.6 (5.3)	31.3 (4.7)	30.9 (5.7)
Unemployed	78	31.5 (5.7)	30.3 (5.6)	29.9 (6.8)
Sexual Orientation				
Gay	416	31.7 (5.4)	31.2 (4.9)	30.9 (5.9)
Bisexual	31	30.3 (4.8)	29.5 (4.8)	28.7 (6.0)
HIV Status				
Negative/DK	351	31.6 (5.4)	31.3 (4.8)	30.8 (5.9)
Positive	96	31.6 (5.4)	30.4 (5.2)	30.4 (6.2)
Recent IPV (any)				
No	323	31.8 (5.1)	31.7 (4.5)	31.1 (5.8)
Yes	124	30.9 (5.9)	29.6 (5.5)	29.8 (6.2)
Same Race as Main Partner				
No	138	31.1 (5.6)	30.9 (5.1)	30.6 (6.4)
Yes	309	31.8 (5.2)	31.2 (4.8)	30.8 (5.7)
Same Sexual Orientation as Main Partner				
No	51	30.4 (5.9)	29.5 (5.9)	28.9 (7.1)
Yes	396	31.7 (5.3)	31.3 (4.7)	31.0 (5.7)
Main Partner Age Difference				
MP 5+ years older	110	31.0 (5.5)	30.5 (4.7)	30.7 (5.2)
MP same age or 1-4 years older	126	31.6 (5.4)	31.2 (4.9)	30.5 (6.3)
MP 1-4 years younger	100	31.5 (5.5)	31.0 (5.6)	30.0 (6.7)
MP 5+ years younger	111	32.2 (5.0)	31.7 (4.4)	31.6 (5.4)
Internalized Homophobia Index				
1 st Tertile (1%-33%)	132	32.7 (4.7)	32.6 (4.1)	31.6 (5.4)
2 nd Tertile (34%-66%)	160	31.8 (5.5)	31.3 (4.7)	31.1 (5.8)
3 rd Tertile (67%-100%)	155	30.5 (5.5)	29.7 (5.3)	29.6 (6.3)
Homophobic Discrimination Index				
1 st Tertile (1%-33%)	142	31.8 (5.2)	31.9 (4.4)	30.6 (6.3)
2 nd Tertile (34%-66%)	127	31.5 (5.1)	31 (4.3)	31.2 (5.1)
3 rd Tertile (67%-100%)	178	31.5 (5.7)	30.6 (5.5)	30.4 (6.2)

Table 3

Adjusted odds ratios for scales measuring outcome efficacy, couple efficacy and communal coping by background characteristics among a sample of 447 gay and bisexual men who self-report having a main partner

	Outcome Efficacy Beta/SE	Couple Efficacy Beta/SE	Communal Coping Beta/SE
Age			
18-24	Ref	Ref	Ref
25-34	0.218 (0.820)	-0.507 (0.716)	0.240 (0.905)
35-44	0.591 (0.866)	-0.121 (0.757)	0.811 (0.957)
45+	0.680 (0.949)	0.211 (0.830)	1.534 (1.048)
Race			
White	Ref	Ref	Ref
Black	-0.130 (0.774)	1.185 (0.676)	-0.109 (0.854)
Other	0.342 (0.937)	1.070 (0.819)	0.104 (1.034)
Education Level			
High School or Less	Ref	Ref	Ref
Some College or two-year Degree	0.401 (0.824)	-0.705 (0.720)	-0.838 (0.910)
College or More	0.051 (0.804)	0.099 (0.703)	-0.280 (0.888)
Employed	-0.005 (0.737)	-0.772 (0.644)	-0.742 (0.814)
Gay Sexual Orientation	-0.339 (1.221)	-0.447 (1.067)	-0.723 (1.348)
HIV Negative	0.044 (0.663)	-0.776 (0.580)	-0.254 (0.733)
Recent IPV	-0.463 (0.616)	-1.383 (0.538) **	-0.463 (0.680)
Different Race than Main Partner	0.956 (0.640)	0.412 (0.560)	0.331 (0.707)
Different Sexual Orientation than Main Partner	0.652 (0.982)	0.757 (0.858)	0.707 (1.084)
Main Partner Age Difference			
MP 5+ years older	Ref	Ref	Ref
MP same age or 1-4 years older	0.604 (0.723)	0.625 (0.632)	-0.144 (0.798)
MP 1-4 years younger	0.388 (0.757)	0.383 (0.661)	-0.915 (0.836)
MP 5+ years younger	1.022 (0.778)	1.143 (0.680)	0.314 (0.859)
Internalized Homophobia Index			
1 st Tertile (1%-33%)	Ref	Ref	Ref
2 nd Tertile (34%-66%)	-0.762 (0.647)	-1.367 (0.566) **	-0.487 (0.715)
3 rd Tertile (67%-100%)	-1.842 (0.669) **	-2.733 (0.585) **	-1.568 (0.739) **
Homophobic Discrimination Index			
1 st Tertile (1%-33%)	Ref	Ref	Ref

	Outcome Efficacy Beta/SE	Couple Efficacy Beta/SE	Communal Coping Beta/SE
2 nd Tertile (34%-66%)	-0.304 (0.683)	-0.658 (0.597)	0.522 (0.754)
3 rd Tertile (67%-100%)	-0.339 (0.687)	-0.786 (0.601)	-0.204 (0.759)

**
p <0.05