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Internalized Homophobia, Coping, and Quality of Life Among Nigerian Gay and Bisexual Men

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ABSTRACT

Despite high levels of homophobia in Nigeria, no studies have investigated the quality of life (QOL) of Nigerian gay and bisexual (GB) men. The associations between QOL and minority stress may differ from those reported in developed countries and may indicate alternative interventions. This study investigated internalized homophobia (IH) and coping strategies among gay and bisexual men in Nigeria and the relationships with overall QOL. Eighty-nine GB men were recruited with a snowball sampling technique. QOL (outcome), IH (predictor) and coping strategies (covariates) were assessed using standardized questionnaires. Relationships were investigated using linear regression analyses. Participants used adaptive more frequently than maladaptive coping strategies. The relationship between IH and QOL was nonlinear ($\beta = -0.27$, 95% CI = −0.48, −0.06), and the positive component was attenuated by adaptive coping strategies. Adaptive strategies can be reinforced as a therapeutic intervention to improve wellbeing among gay and bisexual men in Nigeria.

KEYWORDS
Internalized homophobia; coping; quality of life; gay and bisexual men; Nigeria

The rates of psychiatric morbidity are significantly higher among gay and bisexual compared to heterosexual men (King et al., 2008; Marshal et al., 2011; Miranda-Mendizábal et al., 2017; Plöderl & Tremblay, 2015). This has been attributed to sexual minority stress, which is conceived of as comprising a spectrum of distal and proximal stressors (Meyer, 2003, 2013). Distal stressors consist of actual discrimination events, while proximal stressors include the expectation of stigma, concealment of sexual minority status (to minimize discrimination), and internalized homophobia—self-directed stigma (Meyer, 2003, 2013). Few studies have investigated minority stress factors in sub-Saharan Africa (Cook, Sandfort, Nel, & Rich, 2013; McAdams-Mahmoud et al., 2014; Oginni, Mosaku, Mapayi, Akinsulore, & Afolabi, 2018; Secor et al., 2015; Stahlman et al., 2016), and many of these

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have tended to focus on discrimination. Fewer have investigated the relationships between internalized homophobia and physical and mental health. Berg, Munthe-Kaas, and Ross (2016), in their systematic review of studies investigating internalized homophobia, identified only one African study (Ross, Kajubi, Mandel, McFarland, & Raymond, 2013). Subsequent studies investigating internalized homophobia in sub-Saharan Africa include two among South African men who have sex with men (MSM) (Chard, Finneran, Sullivan, & Stephenson, 2015; Sandfort, Bos, Knox, & Reddy, 2016) and two among Nigerian MSM (Adebajo, Eluwa, Ahonsi, Allman, & Myers, 2012; Oginni et al., 2018).

Similarly, few studies have investigated the quality of life among gay and bisexual men in these regions. Studies from high-income countries have indicated lower quality of life among them relative to heterosexual individuals (Cochran & Mays, 2007; Gil, 2007; King et al., 2003). High levels of homophobia in African countries are reflected in the predominantly discriminatory legislation and social attitudes in these countries (Carroll, 2016; Kohut, 2013). In Nigeria, same-sex activity defined as "indecent practices between males", "acts of gross indecency with other male persons," and having "carnal knowledge of any person against the order of nature" is punishable by a 14-year jail term in southern Nigeria (Criminal Code Act, 1990) or death by stoning in northern Nigeria (Penal Code (Northern States) Federal Provisions Act, 1990). Same-sex marriage is also punishable by a 14-year jail term (Same Sex Marriage Prohibition Act, 2013). Predominantly discriminatory attitudes have also been reported among the Nigerian general public (Kohut, 2013; Mapayi, Oginni, Akinsulore, & Aloba, 2016). It may therefore be expected that the quality of life of Nigerian gay and bisexual men would be lower than that of their heterosexual counterparts.

While this has been attributed to the direct and indirect effects of minority stress, stigma theories suggest that the effect of stigma may not be uniformly negative. Corrigan and Watson (2002), following a review of literature, suggested that individual responses to stigma may be either negative, indifferent, or positive. This non-uniform effect of stigma was demonstrated for the relationship between concealment (a minority stressor) and life satisfaction in a recent European cross-country study (Pachankis & Bränström, 2018). The authors showed that while concealment of sexual identity was associated with low life satisfaction in low-stigma countries, it protected sexual minority individuals in high-stigma countries from even lower levels of life satisfaction. This indicates a differential effect of concealment of sexual orientation depending on the contextual level of stigma. Given the established relationships between internalized homophobia and adverse physical and mental health outcomes in high-income countries with relatively lower structural stigma (Berg et al., 2016; Newcomb & Mustanski, 2010), the finding by Pachankis and Bränström

(2018) suggests that the relationship between minority stressors and quality of life among Nigerian gay and bisexual men may differ from what has been described in most high-income countries.

Consistent with this possibility, Oginni et al. (2018) found a small but significant negative relationship between internalized homophobia and depressive symptoms among Nigerian gay and bisexual male students. In contrast, Sandfort et al. (2016) found positive associations between internalized homophobia and depression and anxiety among South African MSM. Taken together, these conflicting findings highlight the need to further investigate these relationships in sub-Saharan Africa. These differential relationships between internalized homophobia and wellbeing indices are consistent with the formulation by Corrigan and Watson (2002), who focused on self-stigma and suggested that the differential consequences of self-stigma on wellbeing were due to cognitive (coping) strategies.

Coping strategies refer to the different mechanisms individuals use to enable them adapt to the demands made on them by stress—including minority stressors and their negative mental health consequences. Individuals experiencing stress often use various strategies that may reduce the negative emotions associated with the stressful experience (e.g., positive reframing, acceptance), help in solving difficulties associated with the stressful experience (e.g., planning, active coping), help in getting support (e.g., seeking emotional or instrumental support), or provide a means of escape from the stressful situation (e.g., substance use, behavioral disengagement; Bose, Bjorling, Elfstrom, Persson, & Saboonchi, 2015). Coping strategies have been further aggregated based on their overall positive or negative effects on wellbeing and functioning into adaptive (e.g., active coping, seeking support, positive reframing) and maladaptive strategies (e.g., substance use, behavioral disengagement; Kirby, Shakespeare-Finch, & Palk, 2011). Relative to heterosexual youth, lesbian, gay, and bisexual youth have been shown to be more likely to use maladaptive strategies (Sornberger, Smith, Toste, & Heath, 2013) with adverse consequences on their physical and mental wellbeing (Keogh et al., 2009; Pesola, Shelton, & Bree, 2014). Kaysen et al. (2014) further demonstrated a larger effect of maladaptive compared to adaptive coping strategies in mediating the risk for psychological distress among American lesbian and bisexual women. The authors are not aware of any studies that have investigated coping strategies among African gay and bisexual men; however, these findings indicate the importance of coping strategies in attenuating or exacerbating the effects of minority stress on overall quality of life. Drawing from resilience research (Zimmerman, 2013), the effects of coping strategies in gay and bisexual men may be through either compensatory or protective mechanisms (Kaysen et al., 2014). Compensatory effects refer to the direct or additive effects of the resilience factors, in addition to the stressor, on the outcome. Protective effects refer to a moderation or

interaction effect of the resilience factor on the relationship between the stressor and the outcome (Zimmerman, 2013).

Understanding the relationships between internalized homophobia and quality of life among gay and bisexual men in a high-stigma country such as Nigeria would provide a basis for targeting internalized homophobia as an intervention strategy to improve the overall wellbeing and quality of life of gay and bisexual men in Nigeria and other high-stigma settings. Targeting a more internal minority stress factor can potentially limit recourse to external social structures that risk exposing the gay or bisexual man in such settings to further discrimination. Furthermore, understanding the role of coping strategies in this relationship between internalized homophobia and quality of life can inform therapeutic strategies. For example, coping strategies that are adaptive for gay and bisexual men in high-stigma settings such as Nigeria can be identified and reinforced as a therapeutic intervention. The objectives of this study, therefore, were to determine the relationship between internalized homophobia and quality of life among Nigerian gay and bisexual men, to determine the coping strategies used by them, and to determine the impact of these strategies in the relationship between internalized homophobia and quality of life. The hypotheses were that internalized homophobia will have a significant relationship with quality of life and that coping strategies may moderate this relationship or exert direct effects on quality of life in addition to internalized homophobia.

Methods

Participants

This study was carried out among men who identify as gay or bisexual in southwestern Nigeria. The region comprises six states, including Ekiti, Ogun, Ondo, Osun, Oyo, and Lagos, which is the most urban region in Nigeria (Cox & Pavletich, 2018). This region is predominantly populated by the Yoruba with the major religions being Christianity and Islam. Sexual orientation in participants was ascertained by using a single question. None of the participants identified as exclusively heterosexual, three (3.4%) identified as predominantly heterosexual and incidentally bisexual, two (2.3%) identified as mostly bisexual and incidentally heterosexual, 42 (47.7%) identified as bisexual, 17 (19.3%) identified as mostly bisexual and incidentally homosexual, two (2.7%) identified as predominantly homosexual, and 22 (25.0%) identified as exclusively homosexual.

Procedure

Eighty-nine men who self-identified as gay and bisexual were recruited into the study between March 2013 and February 2014 using a snowball sampling technique. The first participant was recruited through an international online

dating site for gay and bisexual men (https://www.planetromeo.com). He then recruited the initial participants who served as seeds and further recruited other participants until the sample size was attained. The questionnaires were administered by the seeds to gain the trust of subsequent participants. The seeds were requested to reassure participants about the confidentiality of information provided, and no identifying information was collected. Interviews took place at venues agreed on by the recruiting seed and the participant. One questionnaire was excluded from analyses due to incomplete information, giving a response rate of 98.9%. Based on the 88 completed questionnaires included in this study, a statistical power of 0.89 was attained using the calculator designed by Soper (2018). Ethical approval for the study was granted by the Ethics and Review Committee, Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Nigeria.

Measures

Sociodemographic information

This inquired about the participants' ages, highest level of education, employment status, and marital status. Each variable was assessed using a single question.

Quality of life

This was assessed using the 26-item version of the World Health Organization Quality of Life assessment (WHOQOL-BREF) questionnaire (World Health Organization, 1996). It was developed as an abbreviated version of the original 100-item version, and it assesses four domains of wellbeing. The first domain focuses on aspects of physical health such as sleep, pain and discomfort, and fatigue, the second domain focuses on psychological factors such as body image and self-esteem, the third domain assesses aspects of social relationships such as social support and sexual activity, and the fourth domain focuses on aspects of the individual's environment such as financial resources and physical safety. Each item was rated on a 5-point Likert scale with higher scores indicating better quality of life. The scores in each domain were transformed as recommended by the manual into maximum scores of 20 (World Health Organization, 1996); these were summed into an overall quality of life score that was used in analyses. The WHOQOL-BREF has been standardized for use in multicultural settings including Nigeria (Skevington, Lotfy, & O'Connell, 2004).

Internalized homophobia

This was assessed using the 26-item Reactions to Homosexuality scale designed by Ross and Rosser (1996). It assesses different dimensions of internalized homophobia including concerns about public identification as being gay, perception of stigma associated with being gay, social discomfort with gay men, and

unacceptability of being gay due to moral and religious reasons. This scale was selected because it had previously been validated in Uganda—a sub-Saharan African country similar to Nigeria (Ross et al., 2010). In the validation study, it showed a similar factor structure to that obtained in Western countries, which indicated that the same construct was being measured and that it was culturally appropriate in a sub-Saharan setting. It was also expected that the assessment of multiple dimensions of internalized homophobia would ensure a robust assessment of the construct. Each item was scored on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), and higher scores indicated higher internalized homophobia. The mean scores for each dimension are reported, and the overall mean scores were used in the main analyses to facilitate interpretation. Normal distribution was ascertained using the Shapiro-Wilks test ($p > 0.05$ for all dimensions of internalized homophobia and the total score, and this indicated normal distribution). The internal consistency of the scale has been reported to be 0.84 (Smolenski, Diamond, Ross, & Rosser, 2010).

Coping strategies

These were assessed using the Brief COPE inventory. Participants were specifically asked to indicate their use of the listed strategies to cope with being gay in Nigeria. This 28-item scale was developed by Carver (1997) as a brief version of the 60-item scale, and it assesses the frequency of use of 14 coping strategies: acceptance, active coping, behavioral disengagement, denial, humor, planning, positive reframing, religion, self-blame, self-distraction, substance use, using emotional support, using instrumental support, and venting. Each of these strategies are assessed via two questions each rated on a 4-point Likert scale ranging from 1 (*I haven't been doing this at all*) to 4 (*I have been doing this a lot*). The score for each strategy is derived from the sum of the responses to the two questions assessing it. In line with the author's recommendation to determine the individual relationships between each strategy and other variables for classification (Carver, 1997), coping strategies in this study were categorized as positive and negative based on their respective positive and negative relationships with overall quality of life. The overall mean scores for positive and negative strategies were determined and used in analyses. It has been shown to have good psychometric properties (Cooper, Katona, & Livingston, 2008) and has been used in Nigeria (Yussuf, Issa, Ajiboye, & Buhari, 2013).

Analyses

The data were summarized using frequencies and proportions and means and standard deviations. Linear regression analyses were carried out to investigate unadjusted univariate relationships between overall quality of life scores as the outcome variable and sociodemographic variables, internalized homophobia dimensions, and the individual coping strategies as

the predictor variables. Subsequent analyses were adjusted for sociodemographic variables. Multivariate models were used to determine the compensatory/direct effects of positive and negative coping strategies in the relationship between quality of life and internalized homophobia by including each as a covariate in Models 1 and 2, respectively. Model 3 included internalized homophobia, positive coping strategies, and an interaction term between both variables, and Model 4 included internalized homophobia, negative coping strategies, and an interaction term between the two. Models 3 and 4 were used to test for protective/moderation effects of coping strategies. Similar analyses were carried out using each of the dimensions of internalized homophobia and are reported in the Appendix. The standardized coefficients and their 95% confidence intervals were reported, and statistical significance was taken as $p < 0.05$.

Sensitivity analyses

These were carried out to interrogate the nonlinear relationship between internalized homophobia and overall quality of life. Study participants who scored higher than a cumulative internalized homophobia mean score of 3.5 were categorized as having high internalized homophobia, while those who scored lower were categorized as having low internalized homophobia. The relationships between the cumulative mean internalized homophobia score and overall quality of life were tested in both groups, as well as the respective effects of including both positive and negative coping strategies as covariates.

Results

Characteristics of the participants

The mean age of the study participants was 26.2 (± 4.13) years, and the majority (83.0%) had tertiary education (Table 1). A little over half (55.1%) were unemployed (including students), and only six (6.8%) were married (in heterosexual marriages). The domains of quality of life with the highest scores were physical health and psychological health (15.8 in both domains), while the least score was in social relationships. The overall mean internalized homophobia score was 3.3 (± 0.41); the dimension with the highest mean score was perception of stigma (3.8 ± 0.49), while moral and religious acceptability was the dimension with the lowest score (2.8 ± 0.50). The most commonly used coping strategies were positive reframing, active coping, planning, and acceptance (Figure 1), while the least used strategies were humor, substance use, self-distraction, venting, and self-blame.

Table 1. Characteristics of the participants.

Variables	*n*/Mean	%/*SD*
Sociodemographic variables		
Age	26.2	4.13
Education		
Secondary	15	17.0
Tertiary	73	83.0
Employment status (n = 78)		
Unemployed	43	55.1
Employed	35	44.9
Marital status		
Single	82	93.2
Married	6	6.8
Quality of Life		
Physical health	15.8	1.87
Psychological	15.8	1.97
Social relationships	13.5	2.46
Environment	14.9	1.65
Overall score	60.0	6.30
Internalized homophobia		
Public identification	3.3	0.58
Perception of stigma	3.8	0.49
Social comfort with gay men	2.9	0.50
Moral and religious acceptability	2.8	0.50
Total	3.3	0.41
Coping strategies		
Positive coping	6.0	1.40
Negative coping	3.3	0.74

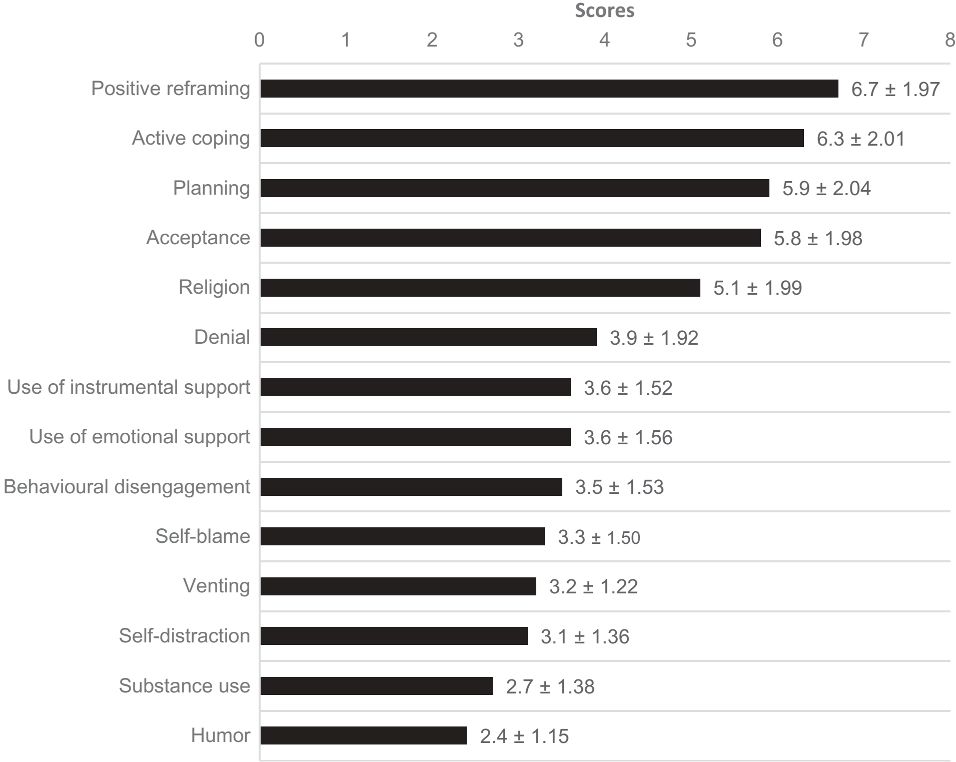

Figure 1. Coping strategies used by study participants.

Univariate associations with overall quality of life

None of the sociodemographic variables were significantly associated with overall quality of life, although increasing age was marginally associated with increasing quality of life (β = 0.19, 95% CI: −0.02–0.40) as shown in Table 2. Positive reframing, active coping, planning, acceptance, and religion were positively associated with overall quality of life and were classified as positive coping strategies. In contrast, denial, use of instrumental and emotional support, behavioral disengagement, self-blame, venting, self-distraction, substance use, and humor were negatively associated with quality of life and were classified as negative strategies (Table 2). The mean scores for positive and negative coping strategies were 6.0 (± 1.40) and 3.3 (± 0.74), respectively (Table 1). Quality of life had a significantly positive and linear association with positive coping strategies (β = 0.48, 95% CI: 0.29–0.67), while the relationship with negative strategies was significantly negative and linear (β = −0.32, 95% CI: −0.53–−0.11).

Internalized homophobia had a significantly negative nonlinear association with overall quality of life (β = −0.25, 95% CI: −0.46–−0.04) in which increasing internalized homophobia was initially associated with increasing quality of life, after which further increases in internalized homophobia were associated with diminishing quality of life (Figure A1, Appendix). Similar significant relationships were found between overall quality of life and each of the first three dimensions of internalized homophobia (public identification, perception of stigma, and social comfort with gay men). However, the relationship between overall quality of life and the fourth dimension (moral and religious acceptability) was positive, linear, and marginally significant (Table 2).

Multivariate associations with quality of life

Adjusting for positive and negative coping strategies in Models 1 and 2, respectively (Table 3), resulted in attenuations in the coefficient for the relationship between internalized homophobia and overall quality of life. The coefficient became less negative and marginally significant (β = −0.19, 95% CI: −0.38–0.00) when positive strategies were included in the model (Model 1), while the attenuation was less marked when negative strategies were included in the model (β = −0.22, 95% CI: −0.42–−0.02; Model 2). In both models, positive and negative coping strategies were independent predictors of overall quality of life. This was also demonstrated in analyses using the individual dimensions of internalized homophobia (Table A3, Appendix). In Models 3 and 4 (Table 3), there were no significant moderation effects for positive and negative coping strategies (β = 0.15, 95% CI: −0.47–−0.77 and β = 0.25, 95% CI: −1.02–1.52, respectively). Analyses using the individual dimensions of internalized homophobia (Table A3, Appendix) showed a significant positive interaction effect of negative strategies in the relationship between quality of life and the fourth

Table 2. Univariate associations with overall quality of life scores.

	Total (Unadjusted)			Total (Adjusted)[b]		
		95% CI			95% CI	
Variables	Beta	LCI	UCI	Beta	LCI	UCI
Sociodemographic variables						
Age	0.19†	−0.02	0.40			
Education (Ref = secondary)	0.04	−0.15	0.26			
Employment (Ref = unemployed)	0.09	−0.14	0.32			
Marital (Ref = single)	0.05	−0.16	0.26			
Coping strategies						
Positive reframing	0.51***	0.33	0.70			
Active coping	0.34**	0.14	0.54			
Planning	0.40***	0.20	0.60			
Acceptance	0.23*	0.02	0.44			
Religion	0.19†	−0.02	0.39			
Positive	0.48***	0.29	0.67	0.49***	0.30	0.68
Denial	−0.06	−0.26	0.14			
Use of instrumental support	−0.01	−0.46	0.44			
Use of emotional support	−0.11	−0.32	0.11			
Behavioral disengagement	−0.23*	−0.44	−0.02			
Self-blame	−0.21*	−0.42	0.00			
Venting	−0.10	−0.30	0.10			
Self-distraction	−0.26*	−0.47	−0.05			
Substance use	−0.07	−0.27	0.13			
Humor	−0.50***	−0.68	−0.32			
Negative	−0.32**	−0.53	−0.11	−0.30**	−0.51	−0.09
Internalized homophobia						
Public identification (IH-1)	−0.29**[a]	−0.49	−0.08			
Perception of stigma (IH-2)	−0.31**[a]	−0.51	−0.10			
Social comfort with gay men (IH-3)	−0.23*[a]	−0.44	−0.02			
Moral and religious acceptability (IH-4)	0.21†	0.00	0.42			
Total	−0.25*[a]	−0.46	−0.04	−0.27*[a]	−0.48	−0.06

Notes: IH-1 – First dimension of internalized homophobia, IH-2 – Second dimension of internalized homophobia, IH-3 – Third dimension of internalized homophobia, IH-4 – Fourth dimension of internalized homophobia.
[a]Coefficients for nonlinear relationships reported. [b]Adjusted for sociodemographic variables.
†$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

dimension of internalized homophobia (moral and religious acceptability, β = 2.03, 95% CI: 0.64–3.42). This was such that increasing use of negative strategies in the presence of high levels of moral and religious concerns about being gay was associated with higher quality of life compared to those who used these strategies minimally.

Sensitivity analyses

Among participants who were classified as having low internalized homophobia (n = 68, Table A4, Appendix), the relationship with overall quality of life was positive, linear, and marginally significant (β = 0.22, 95% CI: –0.02–0.46). This was almost completely attenuated when positive strategies were adjusted for (β = 0.01, 95% CI: –0.17–0.19), and largely unchanged when negative strategies

Table 3. Multivariate associations with quality of life.

	Model 1			Model 2			Model 3			Model 4		
		95% CI			95% CI			95% CI			95% CI	
Variables	Beta	LC	UCI	Beta	LCI	UCI	Beta	LCI	UCI	Beta	LCI	UCI
Internalized homophobia (IH)[a]	−0.19[†]	−0.38	0.00	−0.22*	−0.42	−0.02	−0.61	−1.41	0.19	−0.28	−1.53	0.97
Positive coping strategies	0.47***	0.26	0.69				0.44***	0.22	0.66			
Negative coping strategies				−0.30**	−0.50	−0.10				−0.31*	−0.54	−0.08
IH[a]*Positive coping strategies							0.43	−0.36	1.22			
IH[a]*Negative coping strategies										0.06	−1.18	1.30

Notes: Model 1: Internalized homophobia and positive coping strategies as predictors, Model 2: Internalized homophobia and negative coping strategies as predictors, Model 3: Internalized homophobia, positive coping, strategies and interaction term between internalized homophobia and positive coping strategies as predictors, Model 4: Internalized homophobia, negative coping strategies, and interaction term between internalized homophobia and negative coping strategies as predictors. All models were adjusted for age, marital status, and level of education.

[a]Standardized coefficients for nonlinear relationships reported.

[†]$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

were adjusted for (β = 0.23, 95% CI: 0.00–0.46). Among those classified as having high internalized homophobia (n = 20), internalized homophobia was negatively associated with overall quality of life (β = −0.21, 95% CI: −0.80–0.38), though this was not statistically significant. In contrast to the finding among those with low internalized homophobia, adjusting for positive and negative coping strategies did not substantially affect this relationship (β = −0.21, 95% CI: −0.78–0.36; and β = −0.24, 95% CI: −0.88–0.40, respectively).

Discussion

The relatively low scores in the social domain of quality of life are consistent with findings from studies investigating quality of life among stigmatized Nigerian subpopulations such as people living with HIV (Fatiregun, Mofolorunsho, & Osagbemi, 2009) and women with infertility (Aduloju et al., 2015) in which the lowest scores are in the social domain. This highlights a possible consequence of stigma (Doyle & Molix, 2014) and the legal and cultural restrictions faced by gay and bisexual men in Nigeria. Gay and bisexual men in Nigeria may deliberately restrict social interactions to minimize the risk for forced disclosure of their sexual orientation. Alternatively, social isolation may be a negative consequence of disclosure of sexual orientation (Makanjuola, Folayan, & Oginni, 2018).

The strategies most commonly used to cope with sexual minority status in this study include problem- and emotion-focused strategies that have been described as adaptive (Nipp et al., 2016). This is consistent with findings from other Nigerian studies using the same coping assessment questionnaire. In these studies, religion, planning, positive reframing, acceptance, and active coping were among the most commonly used strategies (Adole, Armiyau, Edet, Audu, & Obembe, 2015; Osundina et al., 2017). Planning and active coping strategies may be necessary for gay and bisexual men in Nigeria to cope successfully with life in a homophobic environment. These may involve active decisions about how best to conduct oneself to minimize the likelihood of discovery. While religion was among the most commonly used strategies among gay and bisexual men in this study, it was not as prominent as in other Nigerian studies in which it was the leading coping strategy (Adole et al., 2015; Osundina et al., 2017; Yussuf et al., 2013). This may reflect a lower tendency among Nigerian gay and bisexual relative to the general population to turn to religion for support with stress related to their sexuality. This is more so considering the negative connotations of same-sex relationships in Christianity and Islam—the dominant Nigerian religions (Adamczyk & Pitt, 2009). In contrast to the finding by Sornberger et al. (2013) in which young gay, bisexual, and questioning adults frequently used maladaptive coping strategies, Nigerian gay and bisexual men were less likely to use social support–related and avoidant strategies. This is similar to previous findings in Nigeria (Osundina et al., 2017; Yussuf et al., 2013). Yussuf et al. (2013) suggested that the low level of reported substance use may reflect cultural and religious biases, which can also

result in underreporting. The low frequency of use of socially oriented strategies by the gay and bisexual men in this study may further reflect the need to conceal their sexual identity and orientation, as seeking support may expose them to further discrimination. Avoidant strategies may also be difficult to use in coping with minority stress in Nigeria because protecting oneself and minimizing discrimination involve an active engagement with one's sexuality.

With respect to internalized homophobia, the relatively high scores in the dimensions related to concerns about public identification and perceived stigma may reflect, respectively, concerns about the adverse legal and social consequences of same-sex sexuality in Nigeria (Criminal Code Act, 1990; Okanlawon, 2017; Penal Code (Northern States) Federal Provisions Act, 1990; Same Sex Marriage Prohibition Act, 2013) and a heightened awareness of discriminatory attitudes. While other studies have reported positive relationships between religious attitudes and discrimination (Della, Wilson, & Miller, 2002; Kohut, 2013), the relatively low concerns about the moral and religious acceptability of same-sex sexuality may indicate the importance of religion to Nigerians including gay and bisexual men as has been described among African American gay and bisexual men (Della et al., 2002).

Associations with quality of life

While the coping strategies identified as positive in this study were consistent with what has been previously described (Nipp et al., 2016), humor and the use of emotional and instrumental support were negatively associated with overall quality of life among gay and bisexual men in this study. The social interactions involved in seeking emotional and instrumental support may expose gay and bisexual men in Nigeria to further discrimination, while humor may indicate the use of self-deprecating jokes, which is associated with maladaptive outcomes (Poncy, 2017). The other negative strategies were consistent with previous categorizations as maladaptive coping strategies (Nipp et al., 2016).

Consistent with other studies that found positive relationships between internalized homophobia and adverse physical and mental health (Berg et al., 2016), the relationship between internalized homophobia and quality of life among Nigerian gay and bisexual men was predominantly negative. However, in contrast to previous findings, the relationship in the current study was nonlinear such that at lower levels, internalized homophobia was positively associated with quality of life, while the negative relationship was more prominent at higher levels of internalized homophobia. This suggests that among Nigerian gay and bisexual men lower internalized homophobia may have a positive effect—for example, by triggering resilience factors such as the use of adaptive strategies. This was illustrated by the positive relationship between internalized homophobia and positive coping strategies (see Appendix) and the near-total attenuation of the positive linear relationship between internalized homophobia and quality

of life by positive coping strategies among participants with low internalized homophobia. This relationship is consistent with the challenge model of resilience in which exposure to moderate levels of a risk factor is associated with positive outcomes, whereas exposure to high levels is associated with negative outcomes (Fergus & Zimmerman, 2005). The negative component of this model was demonstrated among the study participants who had high levels of internalized homophobia, whereby adjusting for positive strategies did not affect the negative relationship between internalized homophobia and overall quality of life. The lack of statistical significance in the sensitivity analyses may reflect the small sample size used in this study and indicates the need for caution in interpreting these findings and for larger samples in future studies. The potentially protective effect of lower levels of internalized homophobia among Nigerian gay and bisexual men is also consistent with the finding by Pachankis and Bränström (2018) that a minority stress factor (concealment of sexual orientation) was protective against further lower levels of life satisfaction among sexual minorities living in countries with high structural stigma.

Compared to positive strategies, negative strategies had a relatively weaker attenuating effect on the relationship between internalized homophobia and overall quality of life. While larger studies are needed to verify this, this finding suggests that adaptive strategies have a stronger impact on the relationship between internalized homophobia and quality of life among gay and bisexual men in Nigeria. This contrasts with the finding by Kaysen et al. (2014) in which maladaptive strategies, compared to adaptive strategies, had a stronger mediating effect in the relationship between internalized homophobia and psychological distress in adult sexual minority women in the United States. The relatively smaller effect of negative strategies found in this study may be due to the low frequency of use of these strategies by the study participants.

The direct relationships between positive and negative coping strategies and quality of life are consistent with compensatory effects. In contrast, there was no evidence for a protective or moderation effect of coping strategies among the study participants. This is consistent with the negative finding by Mustanski, Newcomb, and Garofalo (2011), and it suggests stronger additive or compensatory effects for positive coping strategies among Nigerian gay and bisexual men. However, analyses of the individual dimensions showed that the use of negative strategies with higher levels of moral and religious concerns about being gay was associated with improved quality of life. While this appears counterintuitive, it is possible that negative avoidant strategies such as denial and self-distraction help gay and bisexual men in the highly religious Nigerian context cope with the intrapersonal conflicts involved in integrating religious and sexual identities (Subhi & Geelan, 2012). These specific relationships need to be further investigated using larger samples.

Conclusion

This is the first study to investigate the quality of life and coping strategies used by gay and bisexual men in Nigeria, a high-stigma country. Our findings extend current knowledge by demonstrating a nonlinear relationship between internalized homophobia and overall quality of life, with positive and negative relationships among participants with lower and higher internalized homophobia, respectively. Adaptive coping strategies attenuated the positive but not the negative relationships. Our findings suggest that therapeutic interventions may involve promoting adaptive strategies among gay and bisexual men in high-stigma environments such as Nigeria to improve their quality of life. More studies are, however, needed to confirm these findings in other high-stigma settings, to investigate other mechanisms by which lower levels of internalized homophobia may exert its protective effect and to identify determinants of high internalized homophobia among Nigerian gay and bisexual men.

Strength and limitations

In interpreting the findings from this study, the following limitations need to be considered. The sample was recruited using a non-random technique, which may mean that specific groups of gay and bisexual men were overrepresented in the study. This may in turn limit the generalizability of the study. Similarly, the findings from this study cannot be generalized to lesbian and bisexual women in Nigeria. However, considering the high levels of discrimination in the country, such non-random methods may be the best strategy for reaching this group for the time being. The sample size was small, as indicated by the large confidence intervals. While post hoc power analysis showed that the study was adequately powered to investigate the direct relationships in this study, the sample size was not large enough to permit the investigation of quality of life, internalized homophobia, and coping strategies among sexual minority subgroups. For example, bisexual youth have been shown to be more likely than exclusively gay or lesbian youth to use maladaptive coping strategies (Sornberger et al., 2013). They may also report even lower quality of life compared to more exclusively gay individuals due to the relatively higher rates of psychopathology reported among them (Salway et al., 2018). Following their validation of the internalized homonegativity scale among Ugandan gay and bisexual men, Ross et al. (2010) noted the need to qualitatively investigate the phenomenological constructs being measured by the questionnaire. This indicates the possibility that despite its adequate psychometric properties, the Reactions to Homosexuality questionnaire may be assessing phenomena other than internalized homophobia such as social problems related to the homophobic Nigerian contexts. Future studies may be improved by using larger sample sizes and including men and women to facilitate comparisons by sex. Qualitative studies also need to be carried out in Nigeria and African contexts to assess the adequacy

with which internalized homophobia is assessed by measures adapted from Western settings. The roles of other resilience factors such as self-esteem, social support, and other sexual minority–specific coping strategies that have been demonstrated in developed countries (Hall, 2018; Toomey, Ryan, Diaz, & Russell, 2018) should also be further investigated among lesbian, gay, and bisexual persons in high-stigma environments such as Nigeria.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

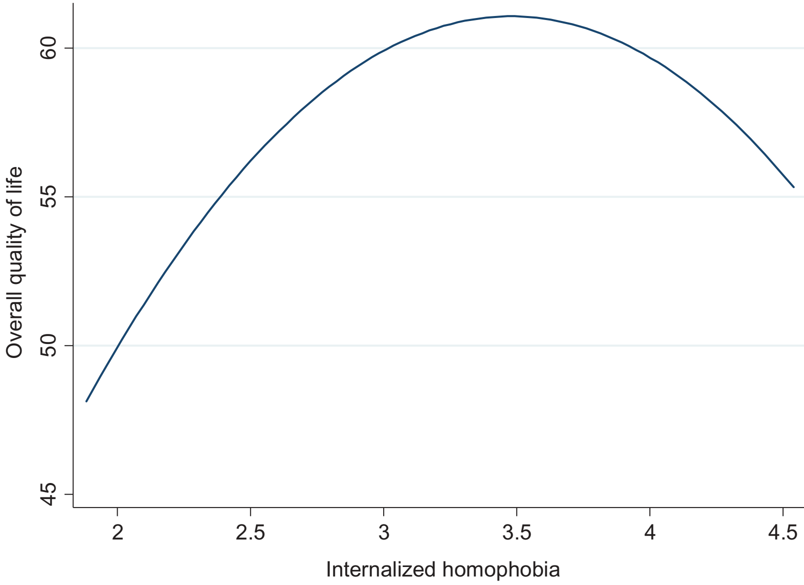

Figure A1. Nonlinear relationship between internalized homophobia and overall quality of life.

Table A1. Correlation between quality of life domains and internalized homophobia and coping strategies.

	WHO-1	WHO-2	WHO-3	WHO-4	WHO-Total
IH-1	0.30**	0.21†	−0.23*	0.24*	0.13
IH-2	0.39***	0.21*	−0.30**	0.07	0.08
IH-3	0.39***	0.20†	−0.16	0.32**	0.20†
IH-4	0.12	0.22*	0.13	0.20†	0.21†
IH-Total	0.41***	0.27**	−0.23*	0.28**	0.19†
IH-Total[a]	−0.25*	−0.30**	−0.15	−0.27*	−0.25*
Positive reframing	0.64***	0.58***	0.06	0.43***	0.51***
Active coping	0.55***	0.37***	−0.04	0.28**	0.34**
Acceptance	0.32**	0.19†	0.06	0.19†	0.23*
Religion	0.32**	0.23*	−0.07	0.20†	0.19†
Denial	0.08	−0.01	−0.23*	0.03	−0.06
Use of instrumental support	−0.05	−0.04	0.09	−0.06	−0.01
Use of emotional support	−0.07	−0.12	0.00	−0.19†	−0.11
Behavioral disengagement	−0.20†	−0.19†	−0.16	−0.16	−0.23*
Self-blame	−0.09	−0.17	−0.31**	−0.04	−0.21*
Venting	−0.03	−0.17	−0.09	−0.02	−0.10
Self-distraction	−0.15	−0.27*	−0.17	−0.24*	−0.26*
Substance use	−0.19†	−0.12	0.12	−0.11	−0.07
Humor	−0.48***	−0.53***	−0.18†	−0.47***	−0.50***
Positive coping	0.70***	0.53***	−0.01	0.42***	0.48***
Negative coping	−0.23*	−0.33**	−0.21†	−0.25*	−0.32**

WHO-1: WHO Domain 1 (Physical health), WHO-2: WHO Domain 2 (Psychological), WHO-3: Domain 3 (Social), WHO-4: WHO Domain 4 (Environment), WHO-Total: Overall WHO score, IH-1: Internalized homophobia – first dimension (Public identification), IH-2: Internalized homophobia-second dimension (Perceived stigma), IH-3: Internalized homophobia – third dimension (Social comfort with gay men), IH-4: Internalized homophobia – fourth dimension (moral and religious acceptability of being gay).
[a]Standardized regression coefficient for nonlinear relationship.
†$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table A2. Univariate regression of coping strategies on internalized homophobia.

	Positive Coping			Negative Coping		
		95% CI			95% CI	
	Beta	LCI	UCI	Beta	LCI	UCI
Internalized homophobia (overall mean score)	0.43[b]***	0.23	0.63	0.14[b]	−0.07	0.35
Public identification (IH-1)	0.34[b]**	0.14	0.54	0.12[b]	−0.08	0.34
Perception of stigma (IH-2)	−0.41[a]***	−0.59	−0.23	0.06[b]	−0.15	0.27
Social comfort with gay men (IH-3)	0.39[b]**	0.19	0.57	0.17[b]	−0.04	0.38
Moral and religious acceptability (IH-4)	−0.27[a]*	−0.49	−0.06	0.06[b]	0.13	0.41

IH-1 – First dimension of internalized homophobia, IH-2 – Second dimension of internalized homophobia, IH-3 – Third dimension of internalized homophobia, IH-4 – Fourth dimension of internalized homophobia.
[a]Standardized coefficients for nonlinear relationships, [b]Standardized coefficients for linear relationships.Add note for asterisks in Table A2.</AQ>

Table A3. Multivariate associations between internalized homophobia domains and quality of life.

	Model 1			Model 2			Model 3			Model 4		
		95% CI			95% CI			95% CI			95% CI	
Variables	Beta	LC	UCI	Beta	LCI	UCI	Beta	LCI	UCI	Beta	LCI	UCI
Public identification (IH-1)[a]	−0.26**	−0.44	−0.08	−0.26*	−0.47	−0.06	−0.67[b]	−1.94	0.09	−0.19	−1.81	1.43
Positive coping strategies	0.50***	0.30	0.70				0.44***	0.22	0.66			
Negative coping strategies				−0.28**	−0.49	−0.08				−0.27*	−0.52	−0.06
IH[a]*Positive coping strategies							0.42	−0.31	1.14			
IH[a]*Negative coping strategies										−0.07	−1.69	1.55
Perception of stigma (IH-2)[a]	−0.16	−0.37	0.06	−0.32**	−0.53	−.011	−0.81*	−1.50	0.12	−0.94*	−1.80	−0.08
Positive coping strategies	0.44***	0.21	0.67				0.33*	0.08	0.66			
Negative coping strategies				−0.26*	−0.46	−0.06				−0.37**	−0.62	−0.12
IH[a]*Positive coping strategies							0.64[b]	−0.01	1.31			
IH[a]*Negative coping strategies										0.66	−0.22	1.55
Social comfort with gay men (IH-3)[a]	−0.17[b]	−0.37	0.03	−0.19[b]	−0.40	0.02	−0.10	−0.84	0.64	−0.18	−1.21	0.85
Positive coping strategies	0.46***	0.25	0.67				0.47***	0.24	0.70			
Negative coping strategies				−0.31**	−0.52	−0.10				−0.31*	−0.55	−0.07
IH[a]*Positive coping strategies							−0.07	−0.70	0.56			
IH[a]*Negative coping strategies										−0.01	−1.09	1.06
Moral and religious acceptability (IH-4)[b]	0.15	−0.04	0.34	0.22*	0.01	0.43	0.69*	0.03	1.35	−0.97*	−1.80	−0.14
Positive coping strategies	0.48***	0.29	0.68				1.31*	0.32	2.30			
Negative coping strategies				−0.31**	−0.51	−0.11				−1.87**	−2.95	−0.79
IH[b]*Positive coping strategies							−1.05[b]	−2.28	0.17			
IH[b]*Negative coping strategies										2.03**	0.64	3.42

H-1 – First dimension of internalized homophobia, IH-2 – Second dimension of internalized homophobia, IH-3 – Third dimension of internalized homophobia, IH-4 – Fourth dimension of internalized homophobia. Model 1: Internalized homophobia and positive coping strategies as predictors, Model 2: Internalized homophobia and negative coping strategies as predictors, Model 3: Internalized homophobia, positive coping strategies, and interaction term between internalized homophobia and positive coping strategies as predictors, Model 4: Internalized homophobia, negative coping strategies, and interaction term between internalized homophobia and negative coping strategies as predictors. All models were adjusted for age, marital status, and level of education.

[a]Standardized coefficients for nonlinear relationships reported, [b]standardized coefficients for linear relationships reported.

[b]$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table A4. Sensitivity analyses.

	Low IH (n = 68)			High IH (n = 20)		
	Beta	LCI	UCI	Beta	LCI	UCI
Model 1						
Internalized homophobia	0.22[a]	−0.02	0.46	−0.21	−0.80	0.38
Model 2						
Internalized homophobia	0.01	−0.17	0.19	−0.21	−0.78	0.36
Positive strategies	0.53***	0.28	0.78	0.32	−0.24	0.88
Model 3						
Internalized homophobia	0.23*	0.00	0.46	−0.24	−0.88	0.40
Negative strategies	−0.34**	−0.57	−0.11	0.10	−0.57	0.77

Model 1 – adjusted for sociodemographic variables, Model 2 – adjusted for sociodemographic variables and positive strategies, Model 3 – adjusted for sociodemographic variables and negative strategies.
[a]$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.