The Quest for Queer Authenticity: The Roles of Spirituality, Self-Compassion, and Psychological Flexibility

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Abstract

Recent research has identified authenticity as an aspect of lesbian, gay, and bisexual (LGB+) positive identity that is distinct from coming out. Authenticity refers to an inner sense of peace and comfort with one's LGB+ identity and is consistently linked to positive psychological outcomes in this population. However, there is limited research on how authenticity can be facilitated among LGB+ adults. Spirituality may be a potential source of support for LGB+ individuals that can reduce the negative effects of minority stress and promote authenticity by facilitating greater self-compassion and psychological flexibility. The present study aimed to examine the relationship between spirituality and authenticity, as mediated by self-compassion, psychological inflexibility, and internalized heterosexism, in a sample of LGB+ adults. Participants (n = 577) completed an online survey with self-report measures on spirituality, self-compassion, psychological inflexibility, internalized heterosexism, and authenticity. Results from a structural equation modeling analysis indicated that spirituality was indirectly linked to authenticity through serial meditation, such that self-compassion mediated the relationship between spirituality and psychological inflexibility, which in turn mediated the relationship between self-compassion and internalized heterosexism, which in turn mediated the relationship between psychological inflexibility and authenticity. These findings have important implications for interventions designed to support the well-being and identity development of LGB+ individuals.

Keywords: LGB+, positive psychology, authenticity, spirituality

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Section 1: Introduction

Over the past decade, there has been a call for more strengths-based research with lesbian, gay, bisexual, transgender, queer, and other gender and sexuality diverse (LGBTQ+) populations (Vaughan et al., 2014). Vaughan and colleagues found that in 2014, out of the 5,045 LGBTQ+ articles identified, only 17.52% were strengths-based, and out of the 210,476 positive psychology articles identified, only 0.42% were with LGBTQ+ samples. While these statistics may have changed over the last 10 years, they highlight the emphasis that has historically been placed on the deficits, rather than the strengths, of the LGBTQ+ community within the field of psychology. A notable example of this is the well-established literature on minority stress theory (Brooks, 1981; Meyer, 2003) and the lack of a strengths-based counterpart. More recently, frameworks have started to emerge that aim to understand the positive aspects of being LGBTQ+ (Perrin et al., 2020; Riggle et al., 2014). One construct that has emerged from the literature on lesbian, gay, and bisexual (LGB+) positive identity (Riggle et al., 2014) is authenticity.

LGB+ scholars have distinguished between the constructs of authenticity and coming out, stating that coming out refers to disclosing one's LGB+ identity to others, whereas authenticity refers to an inner peace about one's LGB+ identity that facilitates honesty with oneself and others (Riggle et al., 2017). Research suggests that authenticity may be more strongly linked to well-being among LGB+ adults than coming out (Brownfield & Brown, 2022; Riggle et al., 2017). This emerging field of study poses a challenge to traditional sexual identity development models (Cass, 1979) that focus on identity disclosure rather than authenticity as an integral component to developing a sexual identity. While studies have consistently shown that authenticity is protective against minority stress and linked to greater well-being among LGB+ individuals (see Roberts et al., 2024 for a review), limited research exists on how to cultivate greater authenticity in this population (Jain, 2023). The aim of the

current study was to address this gap in the literature and examine the relationship between spirituality, an understudied source of support for many LGB+ adults, and authenticity.

LGB+ Authenticity

Authenticity is an important value for the LGBTQ+ community and research shows that it can be a lens through which LGB+ wellness is understood. In a qualitative study conducted by Riggle and colleagues (2008), authenticity was the most commonly endorsed theme when participants were asked about the positive aspects of being LGB+. Participants expressed that self-acceptance and their ability to be honest with themselves and others contributed to their joy, confidence, and the quality of their relationships. Quantitative studies have also supported this link between authenticity and increased LGB+ wellness. In a scoping review, Roberts et al. (2024) found that authenticity was consistently positively associated with both hedonic well-being, as measured by greater positive affect and life satisfaction and lower negative affect, depression, and stress, as well as eudemonic well-being, as measured by autonomy, environmental mastery, personal growth, supportive social relationships, purpose in life, and self-acceptance. Overall, these findings support the use of authenticity as an indicator of LGB+ wellness.

Studies have distinguished between authenticity and coming out, indicating that the two variables have differing relationships with psychological well-being among LGB+ individuals (Brownfield & Brown, 2022; Riggle et al., 2017). For instance, Riggle and colleagues (2017) examined how psychological well-being and distress uniquely relate to outness, or disclosure of one's LGB+ identity, and LGB+ authenticity. Results from hierarchical regressions indicated that higher levels of authenticity predicted greater psychological well-being, fewer depressive symptoms, and lower stress levels, whereas higher levels of outness significantly predicted greater depressive symptoms. Another study, conducted by Brownfield and Brown (2022), examined the relationship between outness,

authenticity, and psychological well-being specifically among bisexual adults. Results indicated that authenticity mediated the relationship between outness and well-being, such that disclosing and not concealing one's bisexual identity was associated with greater authenticity, which in turn was associated with greater well-being. Taken together, these findings indicate that while "coming out" is linked to the well-being of LGB+ individuals in complex ways, one aspect of "coming out" that is consistently, positively associated with well-being is authenticity. Thus, identifying factors that contribute to greater authenticity in LGB+ individuals may be an effective way to support their well-being.

Spirituality and LGB+ Well-Being

One source of support that may contribute to greater authenticity among LGB+ individuals is spirituality. Across different populations, spirituality has been identified as a positive resource that supports both physical and psychological well-being (Bożek et al., 2020; Smith-MacDonald et al., 2017; Visser et al., 2010). For LGBTQ+ individuals, however, the relationship between spirituality and well-being is more complicated. Historically, mainstream organized religions have condemned LGBTQ+ identities, causing considerable harm to these communities. While this has led to many LGB+ individuals leaving faith traditions, it has also led them to seek spirituality outside of institutionalized religion (Beagan & Hattie, 2015). A longitudinal study examining spiritual development among adolescents found that across 5 years, while religiosity decreased for both LGB+ and heterosexual individuals, spirituality increased for LGB+, but not heterosexual, individuals (Lamb et al., 2021). Reports have also indicated that while LGB+ adults in the United States are less religious than heterosexual adults, they are just as spiritual (Murphy, 2015; Schwadel & Sandstrom, 2019). These findings suggest that despite the conflictual relationship that LGBTQ+ communities have had with religious institutions, many LGB+ adults continue to retain their sense of spirituality.

To clarify the distinction between religion and spirituality, Halkitis and colleagues (2009) asked LGBTQ+ adults how they define these terms. Participants defined spirituality primarily in relational terms, such as one's relationship with a higher power, with oneself, with others, and with the Universe. While similar relational themes emerged when asked about religion, participants defined it more in terms of organized worship as well as a means of control. Thus, spirituality primarily had positive connotations with the sample, whereas connotations around religion were mixed. This mirrors the research on the relationship between religion, spirituality, and well-being for LGB+ adults, in that spirituality is consistently linked with positive well-being outcomes, whereas religion is not (Meanley et al., 2016; Rosenkrantz et al., 2016; Tan, 2005). Quantitative studies have supported the association between spirituality and higher psychological well-being, self-esteem, connectedness, and greater acceptance of one's LGB+ identity (Meanley et al., 2016; Tan, 2005). Qualitatively, LGBTQ+ participants report spirituality contributing to their sense of self-love, meaning and purpose, empathy and compassion, positive relationships with others, coping with minority stress, and authenticity (Rosenkrantz et al., 2016). Although these findings support the positive association between spirituality and well-being for LGB+ adults, there is limited quantitative research examining the ways in which spirituality is beneficial for this population. To address this gap, we aimed to test a model examining factors, such as self-compassion and psychological flexibility, that might mediate the relationship between spirituality and authenticity.

Self-Compassion

One way in which spirituality may support greater authenticity in LGB+ individuals is through self-compassion. Self-compassion is a self-directed attitude that consists of three components: mindfulness, which refers to being in touch with and non-judgmental toward one's suffering; common humanity, which refers to feeling connected to others during

difficult times; and self-kindness, which refers to directing kindness toward oneself during moments of suffering (Neff, 2003). Studies show that when LGB+ participants are asked about the positive aspects of spirituality, they shared that it allows them to sit with and recognize difficult emotional experiences (Lassiter & Mims, 2022), experience greater connectedness to family, romantic partners, and their communities, and feel a sense of unconditional acceptance and love toward their sexuality (Rosenkrantz et al., 2016). Another study also found that self-compassion mediated the relationship between spirituality and anxiety in a sample of sexual minority men (Lassiter et al., 2023). These findings suggest that spirituality may promote self-compassion in LGB+ individuals.

Self-compassion, in turn, may support greater authenticity in LGB+ individuals by being protective against minority stress. More specifically, self-compassionate individuals might be less likely to internalize stigmatizing heterosexist experiences by not allowing external experiences of discrimination and prejudice to define their sense of self-worth. For instance, self-compassion weakens the relationship between stigma-related stress and internalized heterosexism among LGB+ adults (Chan et al., 2020). Self-compassion also predicts lower internalized heterosexism, which in turn predicts lower depressive symptoms in this population (Brown-Beresford & McLaren, 2022). These findings suggest that self-compassion is a protective factor against internalized heterosexism and may, thus, promote authenticity in LGB+ adults.

Psychological Flexibility

Another way in which spirituality may support greater authenticity in LGB+ individuals is through psychological flexibility. Psychological flexibility is a concept from Acceptance and Commitment Therapy (ACT; Hayes et al., 2012) that refers to being present and in touch with one's experiences and acting in accordance with one's values. Given the emphasis placed on openness to experience and value-driven action, there appears to be

significant overlap between the concepts of spirituality and psychological flexibility (Santiago & Gall, 2016). When a sample of Black sexual minority men were asked about the role of spirituality in their lives, the themes that emerged included emotion revelation and emancipation, in which participants shared that their spirituality allowed them to recognize and fully embrace emotions that they otherwise would not have been able to acknowledge (Lassiter & Mims, 2022). In another study, LGB+ participants expressed how their spirituality motivated them to engage in compassionate action and advocacy in a way that aligned with their spirituality-based values of love, compassion, and acceptance (Rosenkrantz et al., 2016). These findings suggest that spirituality may promote greater psychological flexibility among LGB+ adults.

Like self-compassion, greater psychological flexibility may in turn promote authenticity in LGB+ individuals by being protective against minority stress. Research on the efficacy of ACT for LGBTQ+ populations suggests that increasing psychological flexibility in LGBTQ+ individuals can lead to improvements in internalized heterosexism, depression, and quality of life (see Fowler et al., 2022 for a review). Furthermore, psychological flexibility has been linked to greater well-being in LGB+ adults indirectly via greater levels of engaged living and, consequently, lower identity-based stress (Chan et al., 2020). These findings suggest that psychological flexibility may allow LGB+ individuals to be more accepting toward their sexual identity, which may in turn support their authenticity.

The Current Study

Studies suggests that authenticity is an indicator of wellness for LGB+ individuals (Riggle et al., 2008), yet there is limited research examining ways to promote greater authenticity in this population beyond the framework of coming out. Unlike coming out, authenticity is consistently linked to greater well-being among LGB+ adults (Riggle et al., 2017; Roberts et al., 2024), and thus, there is a need for more research to identify factors that

contribute to greater authenticity in this population. Spirituality may be one such resource that can support LGB+ authenticity. Although statistics show that LGB+ adults are just as spiritual as heterosexual adults (Murphy, 2015; Schwadel & Sandstrom, 2019), research examining the role of spirituality as a psychological resource for LGB+ individuals is limited. Furthermore, while findings from qualitative studies have suggested that spirituality may promote LGB+ authenticity (Beagan & Hattie, 2015; Rosenkrantz et al., 2016), there is no study to date that has examined the relationship between these two variables using quantitative methods. Thus, the present study aimed to address these gaps in the literature by using structural equation modeling to test whether self-compassion and psychological flexibility mediated the relationship between spirituality and internalized heterosexism, and in turn, authenticity, in a sample of LGB+ adults.

The hypothesized model is shown in Figure 1 (all tables and figures are located in Appendix A). First, we hypothesized that higher levels of spirituality would be associated with greater self-compassion and lower psychological inflexibility (H1). Second, we hypothesized that greater self-compassion and lower psychological inflexibility would be associated with lower levels of internalized heterosexism (H2). Lastly, we hypothesized that lower internalized heterosexism would be associated with greater levels of authenticity (H3).

Section 2: Method

Procedure

Following approval from the authors' institutional review board (IRB), participants were recruited through announcements made on LGBTQ+ social media groups, such as Facebook and Reddit, and through emails sent on community-based listservs. Inclusion criteria included being at least 18 years of age and self-identifying with a sexual minority identity (i.e., lesbian, gay, bisexual, pansexual, demisexual, asexual, fluid, and/or queer). Participants completed an online Qualtrics survey which included demographic questions and self-report measures assessing spirituality, self-compassion, psychological inflexibility, internalized heterosexism, and authenticity. The survey also consisted of several bot detectors and attention checks. Upon completion of the survey, participants were eligible to enter a raffle for one of five $50 Amazon gift cards.

Participants

A total of 662 individuals accessed the survey. One participant was under the age of 18 years and was directed to the end of the survey. Participants who labelled their sexual orientation as questioning were removed (n = 8). Data from participants who did not complete any of the measures, including the demographics questions, were deleted (n = 72). Lastly, participants who were identified as outliers were removed from the final sample (n = 4). This resulted in a sample of 577 participants, who had an age range from 18 to 71 years (M = 32.15; SD = 9.62). Most of the sample was White (70.7%) and from the United States (85.1%). Additional demographic information is provided in Table 1.

Measures

Spirituality

Spirituality was measured using the Spirituality Scale (SS; Delaney, 2005), which is a 23-item scale assessing spirituality across three dimensions: self-discovery (e.g., "I find

meaning in my life experiences"), relationships (e.g., "I value maintaining and nurturing my relationships with others"), and eco-awareness (e.g., "I believe there is a connection between all things that I cannot see but can sense"). Items are rated on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), with higher mean scores indicating higher levels of spirituality. Psychometric testing conducted by Delaney (2005) indicated that the scale had high internal consistency (α =.94) and test-retest reliability (*r* =.84) in an adult sample. Furthermore, structural validity of the scale was supported by principal factor analysis and content validity was supported by a panel of raters with expertise in spirituality. Although previous research has not evaluated the psychometric properties of the scale in an LGB+ sample, the scale showed good internal consistency in the current sample for the full scale (α =.90) as well as the subscales (ranging from α =.76 to α =.91).

Self-Compassion

Self-compassion was measured using the Self-Compassion Scale (SCS; Neff, 2003), which is a 26-item scale comprised of six subscales, namely self-kindness, self-judgment, common humanity, isolation, mindfulness, over-identification. The items (e.g., "I'm tolerant of my own flaws and inadequacies" and "When I'm feeling down, I tend to feel like most other people are probably happier than I am") are rated on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). The scores on the negative subscale items, namely self-judgment, isolation, and over-identification were reverse-coded to calculate the total self-compassion score, with higher mean scores indicating higher self-compassion. Neff (2003) showed the scale to have high internal consistency (α =.92) and test-retest reliability (*r* =.93) in samples of undergraduate students. The scale was also reported to have high construct validity as it related positively to social connectedness, emotional intelligence, and life satisfaction, and negatively to self-criticism, neurotic perfectionism, depression, and anxiety. Furthermore, Neff's study supported structural validity of the scale using confirmatory factor

analysis (CFA). The scale has demonstrated good internal consistency in past research with LGB+ samples (e.g., α =.95; Beard et al., 2017) as well as in the current sample (α =.94 for full scale; ranging from α =.76 to α =.86 for subscales).

Psychological Flexibility

Psychological flexibility was measured using the Acceptance and Action Questionnaire–II (AAQ-II; Bond et al., 2011), an updated version of the AAQ-I with stronger psychometric properties. The AAQ-II is a unidimensional 7-item measure assessing psychological inflexibility and experiential avoidance. The items (e.g., "I'm afraid of my feelings" and "It seems like most people are handling their lives better than I am") are rated on a 7-point scale ranging from 1 (*never true*) to 7 (*always true*), with lower summed scores indicating higher psychological flexibility. Psychometric testing conducted by Bond et al. (2011) indicated that the scale had a mean alpha coefficient of .84 across six samples, including undergraduate students and adult employees. The test-retest reliability of the scale was .81 and .79 across 3- and 12-months, respectively. Bond's study also supported the structural validity of the scale using both exploratory factor analysis and CFA. Furthermore, concurrent and predictive validity was supported by positive correlations between the AAQ-II and depressive symptoms, anxiety-related symptoms, stress, and psychological ill health. The scale has demonstrated good internal consistency in past research with LGB+ samples (e.g., α =.91; Petersen & Twohig, 2023) as well as in the current sample (α =.91).

Internalized Heterosexism

Internalized heterosexism was measured using the Internalized Homophobia Scale–Revised (IHP-R; Herek et al., 2009), a shortened and revised version of the IHP (Herek et al., 1998) designed to assess sexual self-stigma among gay, lesbian, and bisexual individuals. The IHP-R is a 5-item unidimensional scale, with items such as "If someone offered me the chance to be completely heterosexual, I would accept the chance" and "I wish I weren't

gay/lesbian/bisexual." Items are rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher mean scores indicating greater internalized heterosexism. In order to make the scale more inclusive of different sexual minority identities, we modified the items to include the term "queer" in addition to the other identity labels. We also added an additional item to make the scale more applicable to experiences of non-monosexual individuals (i.e., "I find myself trying to be attracted to one specific gender"). The addition of the sixth item did not negatively impact the internal consistency of the scale in the current sample, which was $\alpha = .74$ for both the 5-item and 6-item scales, and thus, was retained in the final analysis. Previous research has supported the use of the IHP-R with LGB+ samples with alphas ranging from .75 to .82 (Herek et al., 2009; Meyer et al., 2021).

Authenticity

Authenticity was measured using the 5-item Authenticity subscale from the Lesbian, Gay, and Bisexual Positive Identity Measure (LGB-PIM; Riggle et al., 2014). The items (e.g., "I have a sense of inner peace about my LGBT identity" and "I am honest with myself about my LGBT identity") are rated on a 7-point scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*), with higher mean scores indicating greater levels of authenticity. In order to make the items more inclusive of different sexual and gender minority identities, we added the following statement in the instructions, "Please note that we use the term LGBT in the following questions to refer to the broader LGBTQ+ identity/community." Psychometric testing conducted by Riggle et al. (2014) supported the convergent validity of the Authenticity subscale, which positively correlated with living authentically and negatively correlated with internalized heterosexism in a sample of LGB+ adults. Furthermore, they reported that the internal consistency of the subscale was .82 and .88 across two samples of LGB+ adults. The subscale's alpha in the current sample was .86.

Data Analysis Plan

Structural equation modeling (SEM) analysis was conducted using the Lavaan package on R to evaluate the fit of the hypothesized model (see Figure 1). In addition, descriptive analyses and assumption checks were conducted on SPSS. First, the data was cleaned using a bot removal protocol to delete bot responses from the data. The bot removal protocol consisted of indicators from multiple sources, including Qualtrics bot detectors, consistency and coherence of responses to two open-ended questions about sexual orientation and gender identity, and bot checks created by the authors of the paper (see Appendix B for details). Out of the 1130 survey responses, 468 were determined to be bots and were deleted from the dataset. Following data cleaning, preliminary descriptive analyses were conducted to test the assumptions of SEM, including normality, univariate and multivariate outliers, linearity, and multicollinearity. West et al.'s (1995) criteria was used to assess univariate normality assumptions, with absolute values below 2 and 7 for skewness and kurtosis, respectively, indicating normally distributed data.

Prior to conducting the SEM analysis, Little's (1988) test was used to test the likelihood of whether or not the data in our sample were missing completely at random (MCAR). The result of the test ($p < .01$) suggested that the data were not MCAR, and thus, we proceeded with the weaker assumption that the data are missing at random (MAR). Based on this assumed pattern of missingness, we imputed the missing data using random forest imputation (Tang & Ishwaran, 2017). Then, in order to conduct the SEM analysis, we first tested the measurement model using confirmatory factor analysis (CFA), following which we tested the full structural model. Model fit was determined using the follow metrics: nonsignificant χ^2, Comparative Fit Index (CFI) $\geq .95$, Tucker Lewis Index (TLI) $\geq .90$, and root mean square error of approximation (RMSEA) $\leq .08$ (Kline, 2016). Furthermore, modification indices were used to identify potential parameters that may be freed to improve

model fit, while maintaining theoretical considerations. Lastly, bootstrapping was used to examine indirect effects.

Section 3: Results

Preliminary analyses indicated that univariate normality, linearity, and multicollinearity assumptions were met. However, significant outliers (Z scores > 3.29) were identified in the responses to the following measures: Relationships subscale of SS, Authenticity subscale of LGB-PIM, and IHP-R. The outliers were individually examined and respondents that missed any attention checks in the survey were removed from the analysis. In addition to the univariate outliers, three multivariate outliers were identified using the Mahalanobis distance measure. SEM analysis was conducted both with and without the outliers. The fit statistics and the significance of the regression coefficients did not differ between the two analyses. Thus, the outliers were retained in the final sample. Lastly, results from the Henze-Zirkler test (HZ = 2.16, $p < .001$) indicated that the data did not meet the multivariate normality assumption, and thus, maximum likelihood with the Huber-White robust standard error estimator was used and the scaled test statistics have been reported (Lai, 2018).

Preliminary analyses indicated that study constructs were significantly correlated with each other in the hypothesized directions (see Table 1). One-way analysis of variance (ANOVA) indicated that authenticity significantly differed between participants of different sexual orientations. Post-hoc *t* tests with Bonferroni corrections indicated that bi+ (bisexual, pansexual, and fluid) and demi-ace (demisexual and asexual) participants reported significantly lower levels of authenticity as compared to lesbian, gay, and queer participants. Given that factors contributing to authenticity may vary for individuals of different sexual orientations, we decided to control for sexual orientation in the final SEM analysis. Thus, the different sexual orientation categories were transformed into dummy coded variables and added as covariates for all the endogenous variables in the model.

To conduct the initial CFA, the six subscales of the SCS (self-kindness, self-judgment, common humanity, isolation, mindfulness, over-identification) were loaded on to the Self-Compassion factor and the three subscales of the SS (self-discovery, relationships, and eco-awareness) were loaded on the to the Spirituality factor. Furthermore, as recommended by Weston and Gore (2006), item parcelling was used for the remaining unidimensional variables. To create the item parcels, we first loaded the items from the AAQ-II, IHP-R, and LGB-PIM (Authenticity subscale) on to their respective latent factors, i.e., Psychological Inflexibility, Internalized Heterosexism, and Authenticity. The items were then rank-ordered according to the size of their factor loadings, and subsequently assigned to one of three item parcels for each scale. The items in each parcel were then summed to create the observed variables for the latent factors. All latent factors were allowed to correlate and the loadings of the first indicator of each factor were constrained to 1.

The results from the CFA for the original measurement model were uninterpretable as the variance of one of the SS subscales was negative, a phenomenon termed the Heywood case. Given that one common cause of Heywood cases is model misspecification, this result may have been indicative of poor factor structure of the SS (Farooq, 2022). Thus, we substituted the subscale factor loadings of the SS with three rank-ordered item parcels to match the other unidimensional variables. The model was no longer misspecified after this modification, however, fit statistics of this measurement model indicated inadequate fit of the data (CFI = .92, TLI = .90, RMSEA = .08). Modification indices suggested covariance among the SCS subscales, and thus, we decided to test whether the 3-factor model of self-compassion fit the data better than the 6-factor model (Neff, 2003). To test the 3-factor model, the positive and negative items of each of the three components of self-compassion were combined, i.e., self-kindness and self-judgment, common humanity and isolation, and mindfulness and over-identification. The three resulting measured variables were then loaded

on to the Self-Compassion latent factor. The fit statistics of the model with the modified Self-Compassion factor indicated good fit of the data (CFI = .97, TLI = .97, RMSEA = .06).

Given the good fit statistics and significant factor loadings of the modified measurement model, we proceeded to examine the fit of the structural model to the data. The hypothesized model predicted that greater spirituality would lead to greater self-compassion and lower psychological inflexibility, which in turn would lead to lower internalized heterosexism, which in turn would lead to greater authenticity. Fit statistics for this model indicated a poor fitting model (CFI = .91, TLI = .88, RMSEA = .08). Modification indices suggested that freeing the parameter for the path between self-compassion and psychological inflexibility would improve model fit. Upon making this modification, the final model met the criteria for a good fitting model (CFI = .96, TLI = .95, RMSEA = .05). All paths, except for the one between self-compassion and internalized heterosexism, were significant and the regressions coefficients were in the hypothesized directions. Furthermore, the modified model indicated that greater self-compassion significantly predicted lower psychological inflexibility (see Figure 2).

Direct and indirect effects were calculated using bootstrapping with 1,000 replications. In the final model, spirituality explained 9.4% of the variance in self-compassion, spirituality and self-compassion explained 54.5% of the variance in psychological inflexibility, psychological inflexibility explained 10% of the variance in internalized heterosexism, and internalized heterosexism explained 46.7% of the variance in authenticity. Self-compassion significantly mediated the relationship between spirituality and psychological inflexibility ($\beta = -.20$, $p < .01$). Psychological inflexibility significantly mediated the relationship between self-compassion and internalized heterosexism ($\beta = -.21$, $p < .01$), but not the relationship between spirituality and internalized heterosexism ($\beta = -.02$, p

= .07). Lastly, internalized heterosexism significantly mediated the relationship between psychological inflexibility and authenticity ($\beta = -.19$, $p < .01$).

Section 4: Discussion

LGB+ authenticity, which refers to feeling comfort and peace with claiming one's LGB+ identity, has been consistently linked to positive psychological outcomes (Roberts et al., 2024), but research on ways to facilitate greater authenticity in LGB+ adults is limited. The current study was the first to examine the association between spirituality and authenticity and identify factors that mediate this relationship in a sample of LGB+ adults. As hypothesized, our findings indicated that self-compassion, psychological inflexibility, and internalized heterosexism significantly mediated the relationship between spirituality and authenticity in our sample. More specifically, greater spirituality indirectly predicted greater authenticity, by predicting greater self-compassion, lower psychological inflexibility, and lower internalized heterosexism. Understanding these underlying processes can provide potential targets for interventions that can support the well-being and identity development of LGB+ individuals.

Pathway Between Spirituality and Authenticity

We hypothesized that spirituality would be linked to authenticity via two separate pathways, namely self-compassion and psychological inflexibility. Contrary to our hypotheses, the results indicated that these two pathways were connected, such that self-compassion partially mediated the relationship between spirituality and psychological inflexibility. Furthermore, self-compassion did not have a direct relationship with internalized heterosexism as predicted. Rather, the relationship between self-compassion and internalized heterosexism was mediated by psychological inflexibility, further supporting the interconnectedness of these constructs. Internalized heterosexism, in turn, accounted for 46.7% of the variance in authenticity, suggesting that the pathway identified in this model explained nearly half of the variability in authenticity in our sample of LGB+ adults.

Self-compassion was one of the predicted pathways though which spirituality would be linked to authenticity among LGB+ individuals. Results indicated that spirituality was indeed associated with greater self-compassion in our sample. This corroborates findings from prior qualitative research, which suggest that spirituality can facilitate all three aspects of self-compassion by supporting greater self-acceptance, connectedness to others, and recognition of difficult emotions (Lassiter & Mims, 2022.; Rosenkrantz et al., 2016). Prior studies also suggest that self-compassion can be a protective factor against minority stress and can predict better mental health outcomes among LGB+ individuals by predicting lower internalized heterosexism (Brown-Beresford & McLaren, 2022; Chan et al., 2020). The findings from the present study, however, suggest that the relationship between self-compassion and internalized heterosexism may be more complex than hypothesized.

Our findings indicated that the association between self-compassion and internalized heterosexism was fully mediated by psychological inflexibility, such that greater self-compassion was associated with lower psychological inflexibility, which in turn was associated with lower internalized heterosexism. Self-compassion and psychological flexibility are both mindfulness-related constructs with an overlapping emphasis on non-judgmental acceptance. Unsurprisingly, studies have shown that the two variables are positively correlated in samples of psychology undergraduate students as well as gay and heterosexual men (Marshall & Brockman, 2016; Matos et al., 2017). The path between self-compassion and psychological flexibility in the present study may suggest that being kind and non-judgmental toward oneself during moments of suffering may allow LGB+ individuals to detach from one's thoughts, stay in the present moment, and engage in value-driven action. Furthermore, the mediated relationship between self-compassion and internalized heterosexism suggests that it may be these aspects of psychological flexibility, that are in part facilitated by self-compassion, that protect LGB+ individuals from

internalizing negative heterosexist views of oneself as a sexual minority individual. Overall, these findings suggest that there may be unique aspects of psychological flexibility, that go beyond self-compassion, that are protective against minority stress for LGB+ individuals.

Lastly, we found that internalized heterosexism mediated the relationship between psychological inflexibility and authenticity, as hypothesized. This result corroborates findings from previous studies which show that authenticity is negatively linked to proximal minority stressors, including internalized heterosexism (Roberts et al., 2024). Taken together, these findings suggest that spirituality, through self-compassion and psychological flexibility, is linked to lower levels of internalizing negative attitudes toward oneself as a sexual minority person, which ultimately is linked to greater comfort with claiming one's LGB+ identity.

Implications for Research, Practice, Advocacy, and Counseling Psychology

Research Implications

The findings from this study have important implications for research with LGB+ populations. At present, only a few studies have examined the role of spirituality as a positive resource for LGB+ individuals. Our findings suggest that spirituality may be an important source of resilience for LGB+ individuals, which highlights the need to examine how spirituality can be nurtured in this population. Religious persecution faced by the LGBTQ+ community can negatively impact spiritual development in LGB+ adults, and thus it is important for research to examine ways in which to integrate spiritual development with LGB+ identity development. Qualitative studies have shown that although individuals may experience conflict between their LGBTQ+ and spiritual identities (Beagen & Hattie, 2015), they may also experience synergy between these two identities in mutually enhancing ways (Rosenkratz et al., 2016). Our study supports the finding that LGBTQ+ and spiritual identities can be synergistic by showing that personal spirituality, as it relates to one's relationship with a higher power, is indirectly linked to greater comfort with one's LGB+

identity. Based on these findings, future studies should consider developing LGB-affirmative spiritual interventions that integrate the positive aspects of intersecting spiritual and LGBTQ+ identities.

Another important finding from the present study was that that spirituality was linked to LGB+ authenticity through mindfulness-based constructs such as self-compassion and psychological flexibility. Understanding this pathway provides an avenue to support positive identity development for LGB+ individuals regardless of their spiritual identity. The mediating roles of self-compassion and psychological flexibility suggest that supporting these strengths may help lower internalized heterosexism and facilitate greater LGB+ authenticity even for individuals who may not identify as spiritual. Thus, future studies may also consider examining how secular mindfulness-based interventions can be utilized to reduce the negative effects of minority stress and increasing aspects of positive LGB+ identity in this population.

Practice Implications

Our findings also have implications for the use of strengths-based approaches in clinical practice with LGB+ clients. When working with individuals who have intersecting religious/spiritual and LGB+ identities, it is just as important to explore the strengths of these intersecting identities as it is to understand the conflicts between them. The positive indirect association between spirituality and LGB+ authenticity in our study highlights the importance of exploring how a client's personal relationship with their higher power can strengthen their sense of self as an LGB+ person. This implies that clinicians may need to work with clients to identify aspects of their spiritual identity that feel congruent with their LGB+ identity, helping them understand that these two parts of themselves are not necessarily incompatible.

The results from this study also provide support for certain interventions that may be particularly effective in supporting positive identity development in LGB+ individuals. The

mediating roles of self-compassion and psychological flexibility in our model suggests that interventions that help LGB+ individuals become more compassionate toward themselves, increase their ability to stay connected with the present moment, and be committed to their values may be particularly beneficial in facilitating greater authenticity in this population. This provides support for the utility of third wave therapeutic approaches with this population such as ACT (Hayes, 2011) and compassion-focused therapy (CFT; Gilbert, 2014) that target psychological flexibility and self-compassion. Recently, studies have explored ways in which ACT and CFT can be tailored to support the specific needs of LGB+ clients, and thus, clinicians may consider utilizing these interventions when working with sexual minority clients with the goal of reducing minority stress and increasing positive LGB+ identity (Pepping et al., 2017; Stitt, 2022).

Advocacy Implications

It is also important to consider the implications of the results from this study on advocacy and policy decisions. Although the United States has made progress in supporting certain LGBTQ+ rights, such as marriage equality, these rights continue to be under threat within the country. In 2023, a record number of over 520 anti-LGBTQ+ bills were introduced in state legislatures in the United States (Peele, 2023). Justification for anti-LGBTQ legislation is often shrouded under the guise of religious freedom, creating the perception that laws that protect LGBTQ+ rights are at odds with laws that protect religious freedom (Kazyak et al., 2018). This tension further drives LGBTQ+ individuals away from religious and spiritual spaces, which constitutes a threat to their religious freedom. As suggested by our findings, spirituality is an important psychological resource for LGB+ in spite of the discrimination they face from religious institutions. This highlights the need to advocate for anti-discrimination laws for LGBTQ+ individuals within religious institutions and the

creation of more LGBTQ-affirming religious and spiritual spaces that can allow LGB+ individuals to nurture their spirituality without sacrificing their sense of self.

Implications for the Field of Counseling Psychology

Historically, the core training values of counseling psychology have included attending to strengths and positive assets of individuals, focusing on diversity, and striving for social justice to promote well-being of others (Lichtenberg et al., 2018). Our study provides an example of how these values can be put into practice through the development of a wellness model for LGB+ individuals. Development of models that go beyond counteracting the negative effects of minority stress and toward nurturing strengths is an important step toward depathologizing and empowering LGBTQ+ individuals. Focusing on the strengths of this community provides the necessary shift in the narrative that focuses on the high levels of distress faced by LGBTQ+ individuals to placing value on fostering greater joy and holistic wellness in this community. Similar to the wellness model developed in our study, future studies that aim to espouse counseling psychology values may also consider examining how LGBTQ+ strengths can be nurtured by including them as outcome variables in their model rather than solely conceptualizing them as protective factors for negative mental health outcomes.

Limitations and Future Directions

There are certain limitations to this study that are important to note. First, the data collection in this study was cross-sectional and, thus, the results cannot imply causality. Future studies should consider utilizing longitudinal and experimental research designs to examine the relationship between spirituality and authenticity. Another limitation of the study is the sampling method and the resulting lack of racial, ethnic, and educational diversity in our sample. Participants in our sample were predominantly White, college-educated, and living in the United States. Although convenience and snowball sampling allowed us to

access a hard-to-reach population and ensure a well-powered study, the generalizability of our findings are limited. Future studies may consider replicating our study with individuals with intersecting racial and sexual minority identities as well as in non-Western cultural contexts.

Another caveat to note while interpreting our results is that they are exploratory in nature. Given that the original model was modified to improve fit to the data, our results need to be replicated with additional data to be considered confirmatory. In addition, there are limitations to the self-report measures utilized in this study. First, the existing internalized heterosexism scales have poor psychometric properties and are not designed to be inclusive of non-monosexual identities. Thus, there is a need for future research to replicate our findings with newly developed internalized heterosexism scales with stronger psychometric properties. Furthermore, there is a lack of consensus in the definition of spirituality, which limits the ability to establish validity of spirituality measures in LGB+ samples. Future studies should consider developing a measure of spirituality that is specifically designed for LGBTQ+ populations.

Section 5: Conclusion

The current study was the first to examine the relationship between spirituality and authenticity in a sample of LGB+ adults. Results indicated that spirituality is indirectly associated with authenticity through self-compassion, psychological flexibility, and internalized heterosexism. These findings suggest that nurturing spirituality among LGB+ individuals may be an important way to support greater authenticity in this population. Furthermore, results also imply that interventions that target self-compassion and psychological flexibility may be particularly effective in reducing minority stress and improving positive identity development in LGB+ individuals.

References

Beagan, B. L., & Hattie, B. (2015). Religion, spirituality, and LGBTQ identity integration. *Journal of LGBT Issues in Counseling, 9*(2), 92–117. https://doi.org/10.1080/15538605.2015.1029204

Beard, K., Eames, C., & Withers, P. (2017). The role of self-compassion in the well-being of self-identifying gay men. *Journal of Gay & Lesbian Mental Health*, *21*(1), 77–96. https://doi.org/10.1080/19359705.2016.1233163

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., Waltz, T., & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, *42*(4), 676–688. https://doi.org/10.1016/j.beth.2011.03.007

Bożek, A., Nowak, P. F., & Blukacz, M. (2020). The relationship between spirituality, health-related behavior, and psychological well-being. *Frontiers in Psychology, 11*, Article 1997. https://doi.org/10.3389/fpsyg.2020.01997

Brooks, V. R. (1981). *Minority stress and lesbian women*. Lexington Books.

Brown-Beresford, E., & McLaren, S. (2022). The relationship between self-compassion, internalized heterosexism, and depressive symptoms among bisexual and lesbian women. *Journal of Bisexuality, 22*(1), 90–115. https://doi.org/10.1080/15299716.2021.2004483

Brownfield, J. M., & Brown, C. (2022). The relations among outness, authenticity, and well-being for bisexual adults. *Psychology of Sexual Orientation and Gender Diversity, 9*(1), 71–80. https://doi.org/10.1037/sgd0000390

Cass, V. C. (1979). Homosexual identity formation: A theoretical model. *Journal of Homosexuality, 4*(3), 219–235. https://doi.org/10.1300/J082v04n03_01

Chan, K. K. S., Yung, C. S. W., & Nie, G. M. (2020). Self-compassion buffers the negative psychological impact of stigma stress on sexual minorities. *Mindfulness, 11*(10), 2338–2348. https://doi.org/10.1007/s12671-020-01451-1

Delaney, C. (2005). The Spirituality Scale: Development and psychometric testing of a holistic instrument to assess the human spiritual dimension. *Journal of Holistic Nursing*, *23*(2), 145–167. https://doi.org/10.1177/0898010105276180

Farooq, R. (2022). Heywood cases: Possible causes and solutions. *International Journal of Data Analysis Techniques and Strategies*, *14*(1), 79–87. https://doi.org/10.1504/IJDATS.2022.121506

Fowler, J. A., Viskovich, S., Buckley, L., & Dean, J. A. (2022). A call for ACTion: A systematic review of empirical evidence for the use of Acceptance and Commitment Therapy (ACT) with LGBTQI+ individuals. *Journal of Contextual Behavioral Science, 25*, 78–89. https://doi.org/10.1016/j.jcbs.2022.06.007

Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, *53*(1), 6–41. https://doi.org/10.1111/bjc.12043

Halkitis, P. N., Mattis, J. S., Sahadath, J. K., Massie, D., Ladyzhenskaya, L., Pitrelli, K., Bonacci, M., & Cowie, S.-A. E. (2009). The meanings and manifestations of religion and spirituality among lesbian, gay, bisexual, and transgender adults. *Journal of Adult Development, 16*(4), 250–262. https://doi.org/10.1007/s10804-009-9071-1

Hayes, S. C., Strosahl, K., & Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd ed.). The Guilford Press.

Herek, G. M., Cogan, J. C., Gillis, J. R., & Glunt, E. K. (1998). Correlates of internalized homophobia in a community sample of lesbians and gay men. *Journal of the Gay & Lesbian Medical Assn*, *2*(1), 17–25.

Herek, G. M., Gillis, J. R., & Cogan, J. C. (2009). Internalized stigma among sexual minority adults: Insights from a social psychological perspective. *Journal of Counseling Psychology, 56*(1), 32–43. https://doi.org/10.1037/a0014672

Jain, K. (2023). Becoming myself: Authenticity as a pathway toward well-being for sexual minority populations. *The Journal of Positive Sexuality, 9*(2), 3–8. https://doi.org/10.51681/1.921

Kazyak, E., Burke, K., & Stange, M. (2018). Logics of freedom: Debating religious freedom laws and gay and lesbian rights. *Socius, 4*. https://doi.org/10.1177/2378023118760413

Kline, R. B. (2016). *Principles and practice of structural equation modelling* (4th ed.). Guilford Press.

Lai, K. (2018). Estimating standardized SEM parameters given nonnormal data and incorrect model: Methods and comparison. *Structural Equation Modeling: A Multidisciplinary Journal, 25*(4), 600–620. https://doi.org/10.1080/10705511.2017.1392248

Lamb, K. M., Stawski, R. S., & Dermody, S. S. (2021). Religious and spiritual development from adolescence to early adulthood in the U.S.: Changes over time and sexual orientation differences. *Archives of Sexual Behavior, 50*(3), 973–982. https://doi.org/10.1007/s10508-021-01915-y

Lassiter, J. M., & Mims, I. (2022). "The awesomeness and the vastness of who you really are:" A culturally distinct framework for understanding the link between spirituality and health for Black sexual minority men. *Journal of Religion and Health, 61*(4), 3076–3097. https://doi.org/10.1007/s10943-021-01297-4

Lassiter, J. M., O'Garro-Moore, J. K., Anwar, K., Smallwood, S. W., Burnett-Zeigler, I. E., Stepleman, L., Sizemore, K. M., Grov, C., & Rendina, H. J. (2023). Spirituality, self-compassion, and anxiety among sexual minority men: A longitudinal mediation

analysis. *Anxiety, Stress, & Coping*, *36*(2), 229–240. https://doi.org/10.1080/10615806.2022.2033235

Lichtenberg, J. W., Hutman, H., & Goodyear, R. K. (2018). Portrait of counseling psychology: Demographics, roles, activities, and values across three decades. The *Counseling Psychologist*, *46*(1), 50-76. https://doi.org/10.1177/0011000018754532

Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, *83*(404), 1198–1202. https://doi.org/10.1080/01621459.1988.10478722

Marshall, E.-J., & Brockman, R. N. (2016). The relationships between psychological flexibility, self-compassion, and emotional well-being. *Journal of Cognitive Psychotherapy*, *30*(1), 60–72. https://doi.org/10.1891/0889-8391.30.1.60

Matos, M., Carvalho, S. A., Cunha, M., Galhardo, A., & Sepodes, C. (2017). Psychological flexibility and self-compassion in gay and heterosexual men: How they relate to childhood memories, shame, and depressive symptoms. *Journal of LGBT Issues in Counseling*, *11*(2), 88–105. https://doi.org/10.1080/15538605.2017.1310007

Meanley, S., Pingel, E. S., & Bauermeister, J. A. (2016). Psychological well-being among religious and spiritual-identified young gay and bisexual men. *Sexuality Research and Social Policy*, *13*(1), 35–45. https://doi.org/10.1007/s13178-015-0199-4

Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin, 129*(5), 674–697. https://doi.org/10.1037/0033-2909.129.5.674

Meyer, I. H., Russell, S. T., Hammack, P. L., Frost, D. M., & Wilson, B. D. M. (2021). Minority stress, distress, and suicide attempts in three cohorts of sexual minority adults: A U.S. probability sample. *PLOS ONE*, *16*(3), Article e0246827. https://doi.org/10.1371/journal.pone.0246827

Murphy, C. (2015). *Lesbian, gay and bisexual Americans differ from general public in their religious affiliations.* Pew Research. Retrieved November 21, 2024 from, https://www.pewresearch.org/short-reads/2015/05/26/lesbian-gay-and-bisexual-americans-differ-from-general-public-in-their-religious-affiliations/

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*(3), 223–250. https://doi.org/10.1080/15298860309027

Peele, C. (2023). *Roundup of anti-LGBTQ+ legislation advancing in states across the country*. Human Rights Campaign. Retrieved November 27, 2024 from, https://www.hrc.org/press-releases/roundup-of-anti-lgbtq-legislation-advancing-in-states-across-the-country

Pepping, C. A., Lyons, A., McNair, R., Kirby, J. N., Petrocchi, N., & Gilbert, P. (2017). A tailored compassion-focused therapy program for sexual minority young adults with depressive symptomatology: Study protocol for a randomized controlled trial. *BMC Psychology*, *5*, Article 5. https://doi.org/10.1186/s40359-017-0175-2

Perrin, P. B., Sutter, M. E., Trujillo, M. A., Henry, R. S., & Pugh, M. (2020). The minority strengths model: Development and initial path analytic validation in racially/ethnically diverse LGBTQ individuals. *Journal of Clinical Psychology*, *76*(1), 118–136. https://doi.org/10.1002/jclp.22850

Petersen, J. M., & Twohig, M. P. (2023). Sexual orientation intrusive thoughts and well-being: The mediating role of psychological inflexibility. *Journal of Cognitive Psychotherapy*, *37*(2), 142–155. https://doi.org/10.1891/JCP-2021-0005

Riggle, E. D. B., Mohr, J. J., Rostosky, S. S., Fingerhut, A. W., & Balsam, K. F. (2014). A multifactor Lesbian, Gay, and Bisexual Positive Identity Measure (LGB-PIM). *Psychology of Sexual Orientation and Gender Diversity*, *1*(4), 398–411. https://doi.org/10.1037/sgd0000057

Riggle, E. D. B., Rostosky, S. S., Black, W. W., & Rosenkrantz, D. E. (2017). Outness, concealment, and authenticity: Associations with LGB individuals' psychological distress and well-being. *Psychology of Sexual Orientation and Gender Diversity*, *4*(1), 54–62. https://doi.org/10.1037/sgd0000202

Riggle, E. D. B., Whitman, J. S., Olson, A., Rostosky, S. S., & Strong, S. (2008). The positive aspects of being a lesbian or gay man. *Professional Psychology: Research and Practice*, *39*(2), 210–217. https://doi.org/10.1037/0735-7028.39.2.210

Roberts, E. R., Lee, M. F., Simpson, K., Kelley, N. J., Sedikides, C., & Angus, D. J. (2024). Authenticity, well-being, and minority stress in LGB individuals: A scoping review. *Journal of Homosexuality*, 1–28. Advance online publication. https://doi.org/10.1080/00918369.2024.2378738

Rosenkrantz, D. E., Rostosky, S. S., Riggle, E. D. B., & Cook, J. R. (2016). The positive aspects of intersecting religious/spiritual and LGBTQ identities. *Spirituality in Clinical Practice*, *3*(2), 127–138. https://doi.org/10.1037/scp0000095

Santiago, P. N., & Gall, T. L. (2016). Acceptance and Commitment Therapy as a spiritually integrated psychotherapy. *Counseling and Values*, *61*(2), 239–254. https://doi.org/10.1002/cvj.12040

Schwadel, P., & Sandstrom, A. (2019). *Lesbian, gay and bisexual Americans are less religious than straight adults by traditional measures*. Pew Research. Retrieved November 21, 2024 from, https://www.pewresearch.org/fact-tank/2019/05/24/lesbian-gay-and-bisexual-americans-are-less-religious-than-straight-adults-by-traditional-measures/

Smith-MacDonald, L., Norris, J. M., Raffin-Bouchal, S., & Sinclair, S. (2017). Spirituality and mental well-being in combat veterans: A systematic review. *Military Medicine*, *182*(11), Article e1920–e1940. https://doi.org/10.7205/MILMED-D-17-00099

Stitt, A. L. (2022). Of parades and protestors: LGBTQ + Affirmative Acceptance and Commitment Therapy. *Journal of LGBTQ Issues in Counseling*, *16*(4), 422–438. https://doi.org/10.1080/26924951.2022.2092931

Tan, P. P. (2005). The importance of spirituality among gay and lesbian individuals. *Journal of Homosexuality*, *49*(2), 135–144. https://doi.org/10.1300/J082v49n02_08

Tang, F., & Ishwaran, H. (2017). Random forest missing data algorithms. *Statistical Analysis and Data Mining: The ASA Data Science Journal*, *10*(6), 363–377. https://doi.org/10.1002/sam.11348

Vaughan, M. D., Miles, J., Parent, M. C., Lee, H. S., Tilghman, J. D., & Prokhorets, S. (2014). A content analysis of LGBT-themed positive psychology articles. *Psychology of Sexual Orientation and Gender Diversity*, *1*(4), 313–324. https://doi.org/10.1037/sgd0000060

Visser, A., Garssen, B., & Vingerhoets, A. (2010). Spirituality and well-being in cancer patients: A review. *Psycho-Oncology*, *19*(6), 565–572. https://doi.org/10.1002/pon.1626

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables. Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56 –75). Thousand Oaks, CA: Sage.

Weston, R., & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, *34*(5), 719–751. https://doi.org/10.1177/0011000006286345

Appendices

Appendix A – Tables and Figures

Table 1

Demographics of Study Sample

Characteristics	*n* (%)
Gender	
Woman or trans woman	305 (52.9)
Man or trans man	102 (17.7)
Nonbinary or third gender	170 (29.5)
Identify within trans umbrella	178 (30.8)
Sexual Orientation	
Bi+ (Bisexual/Pansexual/Fluid)	199 (34.5)
Queer	168 (29.1)
Lesbian	112 (19.4)
Gay	65 (11.3)
Demi-Ace (Asexual/Aromantic/Demisexual)	33 (5.7)
Race/Ethnicity	
White	408 (70.7)
Asian/South Asian/Asian American	49 (8.5)
Multiracial	43 (7.5)
Hispanic/Latinx (non-White)	25 (4.3)
Black/African American	23 (4)
Hispanic/Latinx (White)	15 (2.6)
Native American/Indigenous	3 (0.5)
Other (e.g., Icelandic, Jewish, Pacific Islander)	10 (1.7)
Prefer not to say	1 (0.2)
Religious Affiliation	
Atheist/Agnostic/None	388 (67.2)
Protestant Christian	42 (7.3)
Jewish	23 (4.0)
Catholic	17 (2.9)
Unitarian	15 (2.6)
Hindu	6 (1)
Muslim	5 (0.9)
Buddhist	5 (0.9)
Other (e.g., Pagan, Spiritualist, Wiccan)	76 (13.2)
Spiritual/Religious Identity	
Spiritual but not religious	285 (49.4)
Not spiritual nor religious	211 (36.6)
Spiritual and religious	75 (13)

Table 1 Continued

Demographics of Study Sample

Characteristics	*n* (%)
Religious but not spiritual	6 (1)
Education	
Some high school	5 (0.9)
High school graduate	25 (4.3)
Some college	72 (12.5)
Associate's degree	42 (7.3)
Bachelor's degree	138 (23.2)
Some graduate school	56 (9.7)
Master's degree	140 (24.3)
Doctorate degree or equivalent	103 (17.9)
Income	
0-$9,999	85 (14.7)
$10,000-$25,000	112 (19.4)
$25,000-$50,000	127 (22)
$50,000-$75,000	102 (17.7)
$75,000-$100,000	61 (10.6)
$100,000+	54 (9.4)
Prefer not to say	36 (6.2)
Country	
United States	491 (85.1)
Another country (e.g., Canada, United Kingdom, Germany, India)	86 (14.9)

Table 2

Means, Standard Deviations, and Correlations of Study Variables

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1.	SS	4.15	0.73	—									
2.	SS_SD	4.56	0.91	.63**	—								
3.	SS_R	5.15	0.49	.55**	.45**	—							
4.	SS_EA	3.56	1.03	.95**	.42**	.34**	—						
5.	SCS_SKT	2.71	0.81	.26**	.49**	.18**	.15**	—					
6.	SCS_CHT	2.88	0.78	.23**	.43**	.20**	.12**	.74**	—				
7.	SCS_MT	2.91	0.74	.24**	.44**	.23**	.12**	.77**	.76**	—			
8.	AAQ-II	25.56	9.15	-.26**	-.57**	-.25**	-.08	-.63**	-.59**	-.62**	—		
9.	IHP-R	9.07	3.40	.06	-.09*	-.15**	.13**	-.13**	-.09*	-.12**	.23**	—	
10.	LGB_A	5.87	0.99	.08	.24**	.24**	-.02	.25**	.18**	.16**	-.25**	-.47**	—

Note. SS, SS_SD, SS_R, SS_EA = Spirituality Scale and Subscales (Self-Discovery, Relationships, Eco-Awareness); SC_SKT, SC_CHT, SC_MT = Self-Compassion Scale Subscales with Positive and Negative Items Combined (Self-Kindness and Self-Judgment, Common Humanity and Isolation, Mindfulness and Over-Identification); AAQ-II = Psychological Inflexibility Scale; IHP-R = Internalized Heterosexism Scale; LGB_A = Authenticity Subscale. * $p < .05$; ** $p < .01$.

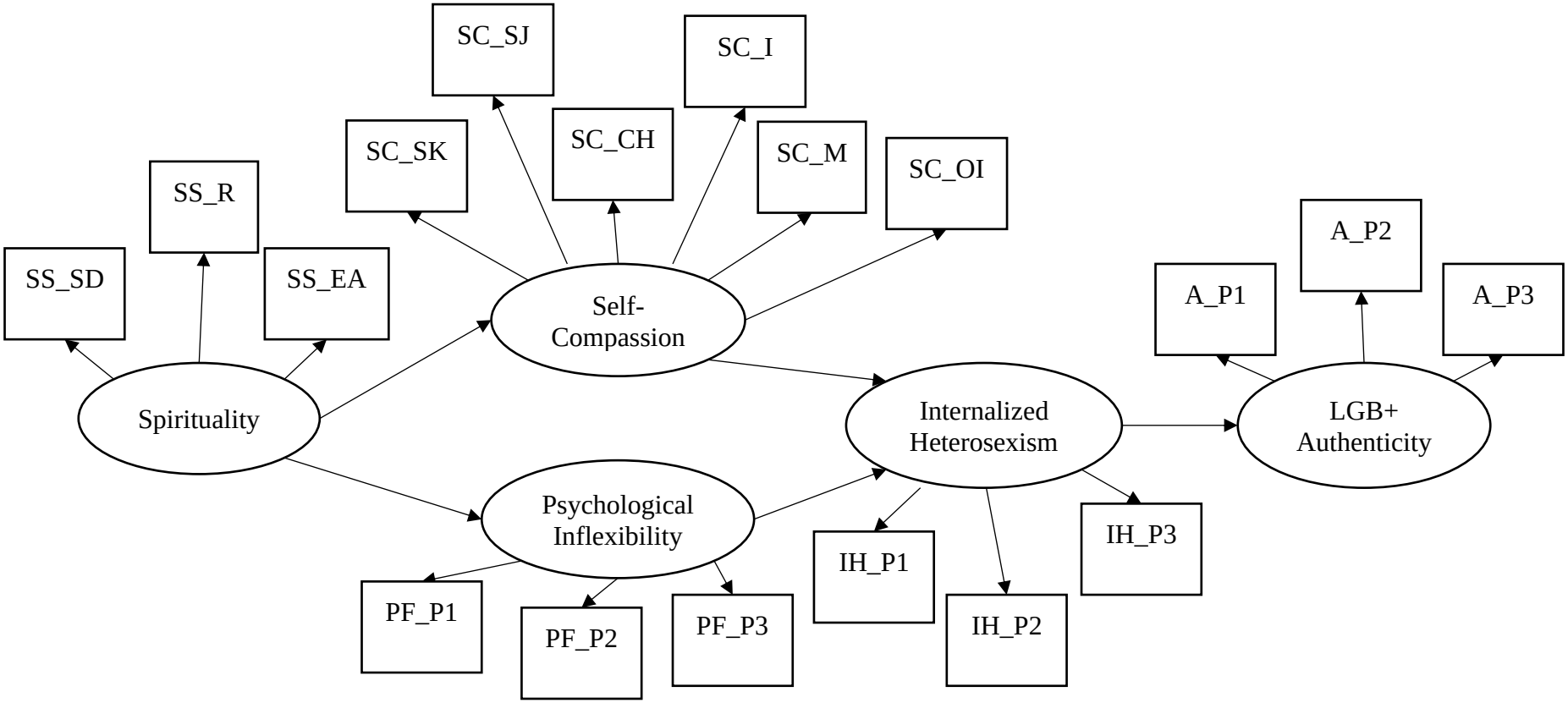

Figure 1. Hypothesized model. SS_SD, SS_R, SS_EA = Spirituality Scale Subscales (Self-Discovery, Relationships, Eco-Awareness); SC_SK, SC_SJ, SC_CH, SC_I, SC_M, SC_OI = Self-Compassion Scale Subscales (Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, Over-Identification); PF_P1, PF_P2, PF_P3 = Psychological Inflexibility Item Parcels; IH_P1, IH_P2, IH_P3 = Internalized Heterosexism Item Parcels; A_P1, A_P2, A_P3 = LGB+ Authenticity Item Parcels

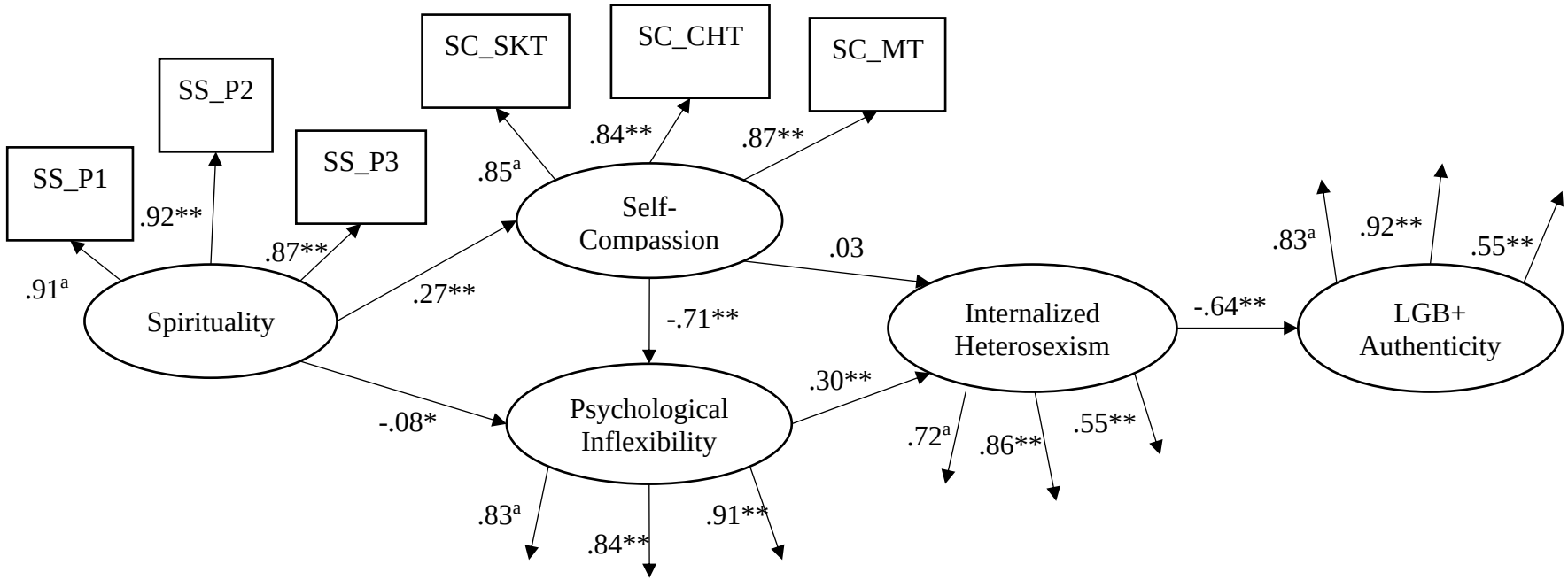

Figure 2. Final model with standardized bootstrapped estimates. SS_P1, SS_P2, SS_P3 = Spirituality Scale Item Parcels; SC_SKT, SC_CHT, SC_MT = Self-Compassion Scale Subscales with Positive and Negative Items Combined (Self-Kindness and Self-Judgment, Common Humanity and Isolation, Mindfulness and Over-Identification). * $p < .05$; ** $p < .01$; [a] constrained estimate.

Appendix B – Bot Removal Protocol

Response Removal Criteria

Responses satisfying any of the following conditions were determined to be bots and were deleted from the dataset:

a. Qualtrics metadata indicating that Q_RecaptchaScore is less than or equal to 0.5, Q_RelevantIDDuplicateScore is greater than or equal to 75, OR Q_RelevantIDFraudScore is greater than or equal to 30.

b. Multiple responses submitted at the same time with the same open-ended responses, e.g., multiple responses in a row that say that their sexual orientation is “bisexual” and gender identity is “woman”, AND at least one of the attention/bot checks was answered incorrectly OR at least one of those responses was flagged by Qualtrics based on criteria a.

c. Incoherent or inconsistent open-ended responses, e.g., sexual orientation is “asd” or “123” or gender identity is “gay”, AND at least one of the attention/bot checks was answered incorrectly OR the response was flagged by Qualtrics based on criteria a.

Attention/Bot Checks

If you are paying attention to this survey, please select option <insert option # here>:

a) Option one

b) Option two

c) Option three

d) Option four

Attention Check: Please select <insert survey response option> for this question

How did you learn about this survey?

a) Email

b) LinkedIn

c) Instagram

d) Podcast*

e) Craigslist*

f) Facebook

g) Search engine*

h) Blog*

i) Television*

j) Other [write in]:

*survey was not distributed on these platforms

Vita

Originally from India, Kriti complete their undergraduate degree in psychology at Ashoka University, India, after which they completed their master's degree in clinical psychology at Teachers College, Columbia University. Kriti's research interests are in the areas of QTBIPOC well-being and positive psychology. Through their research, clinical, and advocacy work, they want to support the well-being of individuals with intersecting marginalized identities using a holistic and strengths-based approach.