



Is Conservative Religiousness Inherently Associated with Poorer Health for Sexual Minorities?

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Abstract

Results of path analysis involving sexual minority participants ($N=1317$) from diverse sociopolitical contexts revealed health outcomes to be associated with internalized homonegativity and the resolution of conflict between religious and sexual minority identities. Contrary to expectations, several markers of religiousness were not directly associated with either improved or worsened health outcomes for depression or anxiety. However, religious activity moderated the influence of internalized homonegativity (IH) on depression such that IH was less strongly related to depression among individuals who frequently attended religious services than among individuals who infrequently attended religious services. These findings have special salience for advancing a more accurate understanding of conservatively religious sexual minorities and directing culturally sensitive research, clinical services, and public policy.

Keywords Religion · LGB · Internalized homonegativity · Identity resolution · Health outcomes

Increasingly, participation in and even exposure to conservative religious faith communities have been described as having seriously deleterious health consequences for sexual minorities (Sowe et al., 2017). Although this is no doubt true for many lesbian, gay, and bisexual (LGB) persons, such sweeping generalizations may be

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premature and risk a biased foreclosure on our understanding of sexual and religious identity issues. In the present study, we scrutinize the association between various markers of religiousness and health outcomes with particular attention to internalized homonegativity (IH) as posited by Minority Stress Theory (MST; Meyer, 2003) in a sociopolitically diverse sexual minority sample. We attempt to clarify which aspects of conservative religious faith contribute to health outcomes over and above IH and whether these relationships are influenced by the degree of identity conflict resolution these individuals report. We close with a discussion of the implications of our findings for guiding future research and practice in a direction that avoids oversimplification of the role conservative religion may play in IH and health outcomes among sexual minorities.

Minority Stress Theory

MST maintains that LGB persons experience stress associated with their stigmatized social status and this stress is responsible for their increased risk for psychological distress (Meyer, 2003). Meyer proposed a number of LGB-specific stressors, including the internalization of negative social attitudes about same-sex attractions, behaviors, and identities (i.e., IH), as well as discrimination and expectations of future rejection based on one's sexual orientation. Hatzenbuehler (2009) extended MST by asserting the presence of several mechanisms that could account for the association between discrimination and elevated psychological distress. These included general psychological processes (e.g., deficits in emotional regulation skills) as well as LGB-specific processes (e.g., concealment) of which IH is a primary influence. MST has been a remarkably productive framework for comprehending the potential impact of stressors unique to sexual minorities over and above general stressors encountered by all people as well as establishing the relationship between distal and proximal stressors and mental health outcomes for this population (Puckett et al., 2017a, 2017b).

In recent years, however, researchers have raised some concerns about IH as a construct, with implications for MST. IH has been criticized for its development and standardization on politically liberal, LGB-identified individuals who are typically not engaged in conservatively religious communities as well as for the heterogeneity of definitions of IH, some of which include correlates and outcomes of this construct rather than simply IH (Puckett et al., 2017a, 2017b; Rosser et al., 2008; Szymanski et al., 2008).

Conservative Religiousness in Sexual Minorities

The general consensus concerning the relationship between sexual minorities and conservative religious faith and practice is that the relationship is complex, with both potentially deleterious and beneficial dimensions (Lefevor et al., 2021).

Barnes and Meyer (2012) did not find support for a predicted link between non-affirming religious settings and depressive symptoms or psychological well-being. They conjecture that some LGB persons remain in non-affirming religious contexts because they find personal meaning and connection to a community (see also Quinn et al., 2015). Similar findings have been reported by others (Hallman et al., 2018; Shilo & Savaya, 2012). Meanwhile, other research has found greater religious participation and commitment negatively associated with psychological well-being (Stern & Wright, 2017). While religious commitments and affiliations may provide some sense of structure and meaning, these researchers assert it also creates conflicts between religious and sexual identities.

Currently, most of the research examining religious participation among sexual minorities examines individuals who have LGB-supportive religious affiliations (Szymanski et al., 2008). Little is known about individuals who experience same-sex attractions and belong to non-affirming religious communities. On the rare occasions when such individuals are purposefully recruited or when samples are large and representative, findings are often counter to those achieved with strictly LGB-identified samples (Barringer & Gay, 2017; Hallman et al., 2018).

Conservative Religion, Internalized Homonegativity, and Health Outcomes

A significant body of research has found religion, and particularly conservative religion, to be associated with higher levels of IH (Crowell et al., 2015; Grey et al., 2013; Kulik, 2013; Quinn et al., 2015; Shilo & Savaya, 2012; Shilo et al., 2016; Sowe et al., 2014; Stern & Wright, 2017). However, this literature also largely relies upon religiously unaffiliated, inactive, or disaffected samples of sexual minorities and, as a consequence, may have limited validity for conservatively religious sexual minorities (Szymanski et al., 2008). Some IH scales may in fact more accurately measure aspects of conservative religious belief rather than the effects of those beliefs (Lefevor et al., 2020; Rosik et al., 2021), particularly as many scales include items pertaining to the morality of homosexuality (Choi et al., 2017; Grey et al., 2013; Ross & Rosser, 1996). Movement away from prioritizing a traditional religious identity to adopting a LGB sexual identity may represent a fundamental alteration of one's core organizing self-schema, including meaning attributions and moral frameworks (Lefevor et al., 2020), as well as one's primary support system.

Much research has linked IH to a variety of poor psychological and other health outcomes. Higher levels of IH have been associated with poorer self-esteem and sense of self, greater psychological distress, increased depression and anxiety, fewer social supports, greater sexual identity concealment, and greater psychosocial difficulties (Grey et al., 2013; Puckett et al., 2017a, 2017b; Rosser et al., 2008; Sowe et al., 2014; Szymanski & Ikizler, 2013; Szymanski et al., 2008). IH has also been associated with poorer physical health but appears to be

increasingly less related to externalizing behavior such as substance abuse, risky sexual behavior, and aggressive actions (Newcomb & Mutanski, 2010, 2011; Pucket et al., 2017; Phan et al., 2020; Puckett et al., 2017a, 2017b).

Research has identified several variables that could exert moderating or mediating influence on the relationship between IH and health outcomes. Often these mediators completely account for such associations (Bergfeld & Chiu, 2017), particularly with conservatively religious, non-LGB-identified samples (Hallman et al., 2018; Kulik, 2013). Factors empirically documented as mediating or moderating the association of IH with various health concerns include affect regulation (Kulik, 2013), emotional coping style (Bergfeld & Chiu, 2017), self-esteem (Kulik, 2013; Szymanski et al., 2008), and rejection sensitivity (Dyar et al., 2018). There is also emerging evidence that psychosocial identity development may be more important than constructs such as IH for comprehending health outcomes among non-LGB-identified and conservatively religious sexual minorities (Hallman et al., 2018). General—rather than sexual orientation-specific measures such as IH—may be critical in advancing our understanding of health disparities between individuals with varying sexual orientations. In this regard, religiousness may also play a role in moderating the relationship between IH and negative health outcomes for sexual minorities (Crowell et al., 2015).

The Present Study

We limit our focus in this study to two areas of analysis: (1) when and how religiousness may predict and/or interact (or not) with IH in predicting health outcomes for our sample and (2) the effect of the developmental milestone of identity conflict resolution on these associations in predicting mental health outcomes. In keeping with the literature, our first hypothesis states:

Hypothesis 1 *Indicators of religiousness will be associated with better health outcomes and will moderate the association of IH with poorer health outcomes (depression, anxiety, and physical health).*

Based on the possibility that advanced identity development in the form of a resolution of sexual and religious identity conflicts would improve health outcomes, our second hypothesis expects that:

Hypothesis 2 *Identity conflict resolution will be related to health outcomes (depression, anxiety, and physical health) even after accounting for variance explained by indicators of religiousness and IH.*

Method

Research Team

Details regarding the formation and composition of the research team can be found in Lefevor et al. (2019). Most importantly, researchers were purposefully selected to create an ideologically diverse group with diverse background experiences related to religion, sexual identity, and clinical practice. We anticipated that this diversity of thought would increase critical thinking and reliability, encourage a more diverse and representational sample of SSA individuals, guard against the utilization of questionable research practices and interpretations, and make coauthors accountable for their use of the results.

Survey Design

Participants were asked to take part in a survey that was designed to identify important aspects of life and relationships for those who experience (or have experienced) same-sex attractions and identify as LGB, heterosexual, other sexual identities, or who reject a label, and were involved in one of four relationship options (i.e., single and celibate; single and non-celibate; heterosexual, mixed-orientation relationship; same-sex relationship). Participants completed the survey through a website designed for the survey (4optionsurvey.com). This survey consisted of three parts. The first section was made up of 22 questions assessing basic demographics, sexual identity, religious affiliation, and ratings of depression, anxiety, and physical health. The second section consisted of 75 questions covering 10 domains, including attitudes about SSA/LGB individuals and religious/spiritual identity. The data for this study were derived from questions in the survey's first section and the religious/spirituality domain of the second section. An optional third section of the survey involved 112 questions pertaining to the 10 domains, allowing participants to provide more details on domains germane and of greater interest to them. More information on recruitment and a description of the survey can be found in Lefevor et al. (2019).

Participants

To be included in analyses, participants must have (a) been at least 18 years of age; (b) experienced same-sex attractions at some point in their life; (c) identified their relationship status; and (d) completed the first two sections of the survey. By recruiting a large and diverse sexual identity sample that included the often ignored, conservative non-LGB-identified subpopulation of sexual minorities, we obtained a more sociopolitically heterogeneous sample to test our hypotheses.

In total, 1782 participants met our inclusion criteria. Some did not complete the second section of the survey, with 1499 participants completing this section. Due to the large number of participants, we used listwise deletion to account for

missing data. We compared those who did and did not complete the second section of the survey to see if those who completed the survey differed significantly from those who started but later dropped out. We found that these two samples did not differ significantly on ethnicity ($\chi^2(8)=13.21$, $p=0.11$), urbanicity ($\chi^2(4)=5.86$, $p=0.21$), education ($\chi^2(6)=5.04$, $p=0.54$), relationship option ($\chi^2(3)=0.38$, $p=0.94$) or age ($t(2327)=1.41$, $p=0.74$). The two groups differed significantly in gender ($\chi^2(12)=54.58$, $p<0.01$) with the baseline sample having a higher percentage of women (36.5%) and a lower percentage of men (56.7%) than the completer sample (women=23.3%, men=70.4%). Participants who responded “not applicable” to items where this response option was available could not be included in our analyses. This resulted in an initial sample size of 1344.

Examination of self-reported experiences of same-sex attraction, fantasies, desires, and behavior revealed that 27 of our participants reported exclusively heterosexual experiences on these dimensions during the past year. To avoid possible confounding in our regressions by the inclusion of heterosexual persons, these participants were removed from our sample, leaving a final sample size of 1317 available for our analyses. On average, these participants reported themselves to have predominantly homosexual experiences.

Sexual minorities who reject an LGB identity have been found to be more affiliated with conservative religion, more active in their faith, and more theologically orthodox (Lefevor et al., 2020; Rosik et al., 2021). Such individuals appear to be largely omitted from research relying on LGB identified sexual minorities but have been well represented in our sample. Indeed, 423 (32.1%) participants identified as heterosexual or not LGB (i.e., heterosexual, same-sex attracted, heterosexual with same-sex attraction, or mostly straight) and 396 (30.1%) participants identified as theologically conservative. Religious identification for the final sample included Mormon (58.9%), None/Unaffiliated (15.6%), Catholic (3.3%), Evangelical Protestant (3.1%), and Jewish (1.2%). Mean age was 38.9 years ($SD=14.4$). Our participants were primarily White (91%). Additional participant demographics are displayed in Tables 1 and 2.

Measures

The survey included both measures specifically created for this study as well as pre-existing measures and was designed to provide data to inform several studies. The present research incorporated the following variables.

Demographics

We included single-item measures of age, education (a 5-point Likert scale from “*Less than high school degree*” to “*Graduate degree*”), and race (0=White, 1=All others; 90.7% and 9.3% of the sample, respectively).

Table 1 Participant characteristics for nominal variables ($N=1317$)

Characteristic	<i>n</i>	%	Characteristic	<i>n</i>	%
Religious affiliation			Sexual identity		
Mormon/LDS	776	77.6	Lesbian or gay	455	34.5
None/unaffiliated	206	15.6	Same-sex/gender attracted	212	15.0
Multiple/other	87	6.6	Heterosexual with SSA	115	8.7
Catholic	44	3.3	Heterosexual/straight	85	6.5
Looking/exploring Options	41	3.1	No option applies	82	6.2
Evangelical protestant	39	3.0	Do not use a label	75	5.7
Baptist	15	1.1	Bisexual	70	5.3
Methodist	13	1.0	Bisexual leaning Gay/lesbian	65	4.4
Pentecostal	12	.9	Homosexual	37	2.8
Episcopal	11	.8	Mostly gay or lesbian	31	2.4
Others	45	3.4	Others	90	6.8
Religious viewpoint			Race		
Theologically conservative	396	30.1	White/Caucasian	1198	91.0
Theologically heterodox	219	16.6	Multi-ethnic/none apply	43	3.3
Theologically moderate	189	14.4	Latina(o)/Hispanic/American	40	3.0
Spiritual not religious	154	11.7	Black/African-American	11	.8
Theologically liberal	114	8.7	Asian/Asian-American	8	.6
Confused/uncertain	73	5.5	Native American/American-Indian	6	.5
Agnostic	53	4.0	Others	11	.8
Other	44	3.3			
Non-religious	31	2.4			
Atheist	26	2.0			
Anti-religious	18	1.4			
Gender					
Male	955	72.5			
Female	293	22.2			
Transwoman	14	1.1			
More male than female	11	.8			
Gender fluid	11	.8			
More female than male	9	.7			
Gender queer	9	.7			
Others	15	1.1			

Internalized Homonegativity

Internalized homonegativity was assessed using the three-item internalized homonegativity subscale from the Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011). The authors report an internal consistency of 0.86 and a test–retest reliability of 0.92. Cronbach’s alpha for the present study was 0.89. This scale is in line

Table 2 Means, standard deviations, and intercorrelations for outcome and significant predictor variables ($N = 1317$)

Variable	M	SD	Range	1	2	3	4	5	6	7	8	9	10
Depression	16.14	6.07	9–36	–									
Anxiety	13.14	5.37	7–28	.78***	–								
Physical health	5.26	1.54	1–7	–.40***	–.30***	–							
Age	38.91	14.36	18–80	–.20***	–.23***	.03	–						
Education	4.73	1.24	1–6	–.26***	–.24***	.19***	–.06*	–					
IH	11.21	5.80	3–21	.21***	.19***	–.06*	.04	–.02	–				
Religious activity	2.40	1.60	1–7	–.03	–.03	.03	.03	.01	.40***	–			
Intrinsic religiosity	5.14	1.89	1–7	–.02	–.02	.03	.08**	.00	.35***	.59***	–		
Religious Identity	4.67	2.16	1–7	–.02	–.03	–.01	.03	–.01	.40***	.63***	.76***	–	
Conflict resolution	4.60	2.09	1–7	–.38***	–.33***	.18***	.17***	.12***	–.33***	.07**	–.00	.03	–

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

with the original conceptualization of IH (Puckett et al., 2017a, 2017b), including the item, “If it were possible, I would choose to be straight.”

Religiousness

We utilized four common indicators of religiousness. Church/religious activity was measured on a 5-point Likert scale from 1 = *More than once per week* to 5 = *Stopped attending/not applicable*. This variable was transformed so that higher scores would indicate greater religious activity. A plethora of options for religious views were offered to participants, and the category “Theological conservative, traditional, or orthodox” was contrasted with an “Other” group that included the aggregate of all other non-conservative views (e.g., “theologically liberal or progressive”, “theologically heterodox”, and “spiritual but not religious”). The prioritizing of religious identity was measured by the statement, “My religious/spiritual identity is more important to me than my sexual identity,” using a 7-point Likert scale from 1 = *Strongly disagree* to 7 = *Strongly agree*. Intrinsic Religiosity (IR) was measured by the statement, “My whole approach to life is based on my religion/spirituality” (Gorsuch & McPherson, 1989). These items also utilized the aforementioned 7-point Likert scale format.

Identity Conflict Resolution

Participants responded to the single item, “I feel resolved about my sexual and religious issues.” This item was measured on a 7-point Likert scale from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Depression

Current depression was measured using the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001). The PHQ-9 has good concurrent validity with the Short Form-20 (SF-20) and diagnosis of major depressive disorder (Kroenke et al., 2001). Cronbach’s alpha for the present study was 0.90.

Anxiety

Current anxiety was measured using the Generalized Anxiety Disorder 7-item (GAD-7) scale (Spitzer et al., 2006). The GAD-7 has good concurrent validity with the SF-20 and diagnosis of generalized anxiety disorder (Spitzer et al., 2006). Cronbach’s alpha for the present study was 0.92.

Physical Health

Physical health was assessed through a single-item reading, “I am physically healthy.” This item was measured on a 7-point Likert scale from 1 = *Strongly disagree* to 7 = *Strongly agree*.

Procedure

Data Collection and Recruitment

We obtained approval from the Idaho State Institutional Review Board prior to commencing this study¹. Data collection occurred over a 10-month period from September, 2016, to June, 2017. This involved invitations through (1) news media in Utah, (2) Email lists, Facebook groups, and conventions, (3) psychological associations and support networks, and (4) mental health providers. Organizations and networks utilized for recruitment ranged from those religiously and/or conservative oriented (e.g., North Star, Alliance for Therapeutic Choice and Scientific Integrity, People Can Change) to those formally LGB-affirming (e.g., American Psychological Association's Society for the Psychological Study of Sexual Orientation and Gender Diversity, the LGBTQ-affirmative Psychotherapist Guild of Utah, and the National Association for Social Work). Recruitment occurred through these organizations and websites, mental health providers, and friends or family members. National conventions, FaceBook groups, and email lists were utilized as recruiting platforms, along with announcements sent to news outlets, affinity groups, and community centers. Complete details about participant recruitment can be found in Lefevor et al. (2019).

The present study was conducted mostly by individuals who have experienced SSA or identify as LGB. In addition, some members of the research team hold leadership roles in conservative organizations such as North Star and The Alliance for Therapeutic Choice and Scientific Integrity. This representation may have encouraged traditionally religious and non-LGB-identified participants to believe their perspectives would be represented and understood.

Analytical Plan

Variable coding, descriptive statistics, and correlations were conducted in IBM's SPSS Statistics 25. Hypotheses were then tested using path analysis in Mplus 8.3. (Muthen & Muthen, 2017). Path analysis was used to test hypotheses because it allows for the examination of both main and interaction effects while simultaneously controlling for the likely covariance in the dependent variables (i.e., depression, anxiety, and physical health). Thus, any detected main or interaction effects can be better interpreted as detecting the effects of the outcome variables that are not attributable to the other outcome variables. Although we initially hypothesized multiple interaction effects between indicators of religiousness and IH, all of the indicators of religiousness were substantially intercorrelated ($r > 0.5$), and so we determined it more parsimonious to select a single indicator to test for interaction effects. We chose service attendance due to its widespread use in the literature and intuitive interpretation. One path model with all study participants was conducted, with age, race, and education status as controls. The model had two levels: the predictors (i.e., IH, religious activity, religious identity prioritized, intrinsic religiousness, the interaction between religious activity and IH, and conflict resolution) and

all three outcomes (i.e., depression, anxiety, and physical health). Variables used in the moderation analyses were centered to avoid multicollinearity. All outcomes were allowed to covary and were regressed on each predictor and dependent variable.

Results

Descriptive Statistics

Univariate analyses supported the linearity and normality of all our continuous variables. All variables were within the acceptable range of skewness less than 2 and kurtosis less than 7 (West et al., 1995). These impressions were confirmed by examination of residuals. As anticipated, depression was strongly correlated with anxiety ($r=0.78$, $p<0.001$) and moderately associated with physical health ($r=-0.40$, $p<0.001$), while anxiety and physical health were only mildly correlated ($r=-0.30$, $p<0.001$). Interestingly, none of the religious variables were correlated with the three outcome variables ($ps>0.05$). All means, standard deviations, and bivariate correlations for significant predictors are presented in Table 2.

Path Analysis

Next, we conducted a path analysis to address our hypotheses. Depression, anxiety, and physical health were allowed to covary and were regressed onto each predictor and control variable. We do not report fit indices because the model was saturated. Table 3 presents the results of each pathway. When examining the pathways from predictors and control variables to depression, higher levels of IH were related to higher levels of depression ($B=0.28$, $SE=0.07$; $p<0.001$), while conflict resolution ($B=-0.29$, $SE=0.03$; $p<0.001$), education ($B=-0.19$, $SE=0.03$, $p<0.001$),

Table 3 Results of Linear Regressions Predicting Depression, Anxiety, and Physical Health

	Depression		Anxiety		Physical health	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Education	-0.19***	0.03	-0.16***	0.03	0.18***	0.03
Age	-0.08**	0.03	-0.14***	0.03	-0.08**	0.03
Race	<0.01	0.03	<.01	0.03	-0.08**	0.03
IH	0.28***	0.07	0.26***	0.07	-0.09	0.07
Conflict resolution	-0.29***	0.03	-0.24***	0.03	0.18***	0.03
Religious activity	-0.01	0.06	<-.01	0.06	<.01	0.06
Religious identity prioritized	<0.01	0.04	-.04	0.04	-0.13**	0.05
Intrinsic religiousness	-0.02	0.04	<.01	0.04	.11**	0.03
Religious activity x IH	-0.18*	0.09	-0.16	0.09	.12	0.10
<i>R</i> ²	.22***	0.02	.19***	0.02	.08***	0.02

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

N=1317. Depression, anxiety, and physical health were allowed to covary in order to detect independent effects

and age ($B = -0.08$, $SE = 0.03$; $p < 0.001$) were significantly related to less depression. There were no significant main effects of the religious variables on depression ($ps > 0.649$). However, there was a significant interaction effect of religious activity and IH on depression ($B = -0.18$, $SE = 0.09$; $p < 0.05$). Simple effects analyses suggested that when religious activity was high (1 SD above the mean), the relationship between IH and depression was attenuated ($\beta = 0.10$) where the reverse was true when religious activity was low (1 SD below the mean; $\beta = 0.46$). The pathway to depression evidenced a medium effect size $R^2 = 0.22$. In partial support with our first prediction, religiousness defined as engagement in religious activity moderated the relationship of IH and depression, such that for higher levels of IH, greater religious activity was associated with less depression. However, contrary to our hypothesis, there was no significant main effect of religiousness onto depression. Consistent with our second prediction, identity conflict resolution was a significant predictor above and beyond the other variables, with greater resolution of identity conflict relating to less depression.

Similarly, pathways to anxiety demonstrated a significant main effect for IH ($B = 0.26$, $SE = 0.07$; $p < 0.001$), conflict resolution ($B = -0.24$, $SE = 0.03$; $p < 0.001$), education ($B = -0.16$, $SE = 0.03$, $p < 0.001$), and age ($B = -0.14$, $SE = 0.03$; $p < 0.001$). There were no significant main effects of the religious variables ($p > 0.409$) or the interaction between religious activity and IH ($p = 0.079$). The pathways to anxiety demonstrated a medium effect size, $R^2 = 0.19$. Contrary to our hypotheses, sexual minorities' religious activity, religious identity, intrinsic religiousness, and the interaction between religious activity and IH were not significantly related to anxiety. However, in line with our second prediction, identity conflict resolution was a significant predictor after accounting for the other variables, with greater resolution of identity conflict being associated with less anxiety.

Finally, when examining pathways to physical health, there were significant main effects of intrinsic religiosity ($B = 0.11$, $SE = 0.03$; $p < 0.01$), religious identity ($B = -0.13$, $SE = 0.05$; $p < 0.01$), conflict resolution ($B = 0.18$, $SE = 0.03$; $p < 0.001$), education ($B = 0.18$, $SE = 0.03$; $p < 0.001$), age ($B = -0.08$, $SE = 0.03$; $p < 0.01$), and race ($B = -0.08$, $SE = 0.03$; $p < 0.01$). However, there were no significant main effects of IH, religious activity, or their interaction ($ps > 0.879$). The pathways to physical health evidenced a small to medium effect size $R^2 = 0.08$. In line with our initial prediction, an intrinsic religious orientation to life as well as a prioritizing of religious identity were associated with improved physical health. However, contrary to our hypotheses, there were no interaction effects between religious activity and IH. As expected by our second prediction, identity conflict resolution was associated with improved physical health, such that greater resolution of identity conflict was related to better physical health.

Discussion

We examined a religiously diverse (in terms of sociopolitical contexts and theological perspectives) sample of sexual minority individuals to determine which (if any) indicators or religiousness would contribute to health outcomes while accounting

for IH and whether any of these would moderate the IH-health relationship. We also expected the degree of resolution of sexual and religious identity conflict would be significantly related to health after accounting for other variables. Results provided some confirmation of our expectations, which we discuss below.

The Relationship between Religiousness and Health

In our sample, indicators of religiousness were not directly related to depression or anxiety, contrary to our hypotheses which predicted a positive relationship. Interestingly, *no* relationship between indicators of religiousness and health emerged for these outcomes, which also runs contrary to conventional thinking that predicts a negative relationship between religiousness and health among sexual minorities (Crowell et al., 2015). Likely, this lack of relationship reflects the variety of meanings that religiousness holds for sexual minorities (Lefevor et al., 2020, 2021). Where religiousness may ultimately promote health among sexual minorities who feel connected to religious communities, conservative or otherwise, it may hinder health among sexual minorities who have had traumatic or negative interactions with religious institutions and people (Lefevor et al., 2021; Rosik et al., 2021).

Importantly, participation in church services appeared to moderate the effects of IH on depression, such that higher levels of IH engagement in religious activities were associated with reduced depression above its main effects. This trend may reflect that, due to the conflation between the constructs of IH and conservative religiousness (e.g., Sowe et al., 2014), those with higher IH were more likely to be religiously conservative and thus engaging with their faith may be particularly ego-syntonic. These results add further weight to the emerging literature finding positive effects of formal religious practice among some sexual minorities in both affirming and non-affirming faith environments (Barnes & Meyer, 2012; Barringer & Gay, 2017; Crowell et al., 2015; Shilo & Savaya, 2012). The social resources and meaning schemas of these communities have the potential to be powerful assets to greater health for sexual minorities (Lefevor et al., 2021; Rosik et al., 2021), even those in more conservative faith settings. These results suggest some of those who remain in traditional religious environments have been able to find ways to flourish that for them outweigh the challenges of participating in strongly heteronormative religious communities. It is also contextually important to point out that our sample as a whole reported levels of depression and anxiety above those in healthy, normative samples (Kroenke et al., 2001; Lowe et al., 2008).

More in keeping with our first hypothesis, some markers of religiousness were directly related to physical health. Greater intrinsic religiousness was related to perceptions of better physical health while prioritizing a religious and spiritual identity above one's sexual identity was associated with self-reported poorer physical health. These findings may reflect both a strong religious outlook on life which promotes healthy living as well as the possibility individuals with poorer health may become more religiously identified, turning to faith for comfort and solace (Bjork & Thurman, 2007; Chen et al., 2021).

Resolution of Identity Conflict

Another important finding is that sexual minorities who report having resolved conflict between their religious and sexual identities indicated substantially better health outcomes. It also bears mentioning that the resolution of conflict between sexual and religious identities exerted an effect of a similar magnitude on health outcomes as did IH. These findings may suggest the resolution of conflict between religious and sexual identities may be just as important if not more so for a proper understanding of the role religion and IH play in the health outcomes of sexual minorities. *Post hoc* independent samples *t* tests revealed that individuals who identified as theologically conservative reported similar degrees of identity conflict resolution ($M=4.70$, $SD=2.01$, $n=396$) as all others ($M=4.55$, $SD=2.13$, $n=921$) and that sexual minorities who did not identify with conventional sexual minority labels (e.g., LGB) ($M=4.50$, $SD=2.12$, $n=423$) reported similar degrees of identity conflict resolution as those who identified as LGB ($M=4.65$, $SD=2.08$, $n=894$).

Our findings are thus consistent with the conclusion that the health-enhancing resolution of religious and sexuality conflicts among sexual minorities can occur in either identity direction and this resolution may be especially critical among conservatively religious sexual minority persons who seek to remain in their faith communities. This study does not provide information on how such resolution was achieved by these individuals, which would be an important focus of further research. However, conservatively religious sexual minorities who desire to stay connected to their faith communities can be encouraged to know that such conflict resolution appears to occur for some individuals.

Implications for Research and Practice

We believe the present study offers several important implications for research when studying the relationship of IH and religion with health outcomes among sexual minorities. Future studies in this area would be wise to include a measure of organized religious participation since religious practice appears to mitigate most consistently the impact of homonegative beliefs even within conservative faith communities. Including a measure of identity resolution/integration also appears to be critical for comprehending the impact of IH on health outcomes (Hallman et al., 2018). Such a measure could also aid in determining to what extent findings derived from non-religiously conservative and LGB-identified samples may at least partially confound the effects of identity conflict resolution with those purported to derive from conservative religious belief. Our findings appear to support the emerging literature indicating some constructs and conclusions originating from research with LGB-identified samples may not be uniformly applicable or easily transferrable to non-LGB-identified sexual minorities within religiously conservative communities (Barringer & Gay, 2017; Hallman et al., 2018; Kulik, 2013; Lefevor et al., 2020; Rosik et al., 2021).

Our ideological diverse research team addresses many sampling limitations of previous studies (as encouraged by Meyer & Wilson, 2009) and provides a model for researchers who wish to gauge the external validity of current research by accessing sexual minorities in non-affirming religious contexts. The inclusion of conservatively religious researchers both facilitated access to typically overlooked religiously conservative, non-LGB-identified sexual minority support networks and provided a check against ideological bias from both the sociopolitical left and right in the wording of questions asked participants and in the interpretation of our findings. We are aware of no other research projects apart from ours in this politically charged arena that has purposely set out to be inclusive of highly diverse perspectives. We suspect that this feature of our research team improves the ecological validity of our findings among sexual minorities.

Our findings suggest IH may function somewhat differently for LGB-identified and conservatively religious non-LGB-identified sexual minorities. The discovery of an interaction between engagement in religious activity and IH may not only suggest the buffering effects of social support on stigma but could also indicate variant meanings attached to the items depending on their religious salience to the respondent (Lefevor et al., 2020; Rosik et al., 2021). When religious identity is expressed through religious participation among conservatively religious sexual minorities, higher IH may reflect a connection to their faith community, as expressed in adherence to traditional religious teachings on sexuality. This may limit the potentially negative impact of heteronormative faith communities on health outcomes. However, for sexual minorities whose religious identity is less or unconnected to engagement in religious activity, greater IH may be more likely to signal shame and stigma with one's sexual orientation.

In order to clarify such potential confluences in the literature, future research would also benefit from a close examination of the validity of constructs developed for and with LGB-identified persons when applied to religiously conservative sexual minorities. There is a serious risk of this minority within a minority being studied according to what social scientists believe about them rather than what they actually believe about themselves. This may compound their minority stress. For example, the manner in which a psychological construct is operationalized may guarantee a resulting biased depiction of conservatively religious sexual minority respondents. Watson's Ideological Surround Model ([ISM] Watson, 1993, 2019) could be very useful here as a tool for identifying worldview bias. The ISM has already suggested divergent ideological commitments between researchers and religious conservatives embedded within measurement instruments may result in inaccurately blanket portrayals of these believers as being more authoritarian (Watson et al., 2003) and homophobic (Rosik, 2007a, b), less open to experience (Watson et al., 2015), less tolerant of ambiguity (Watson & Morris, 2006), and lower in self-esteem (Watson et al., 1987).

There is also evidence of differences in conceptions of and pathways to happiness and life satisfaction between religious and secular cultures/worldviews (Joshanloo, 2019; Pawar, 2017; Tamir Schwartz et al., 2017). This may further complicate straightforward generalizations from religiously disaffiliated or unaffiliated LGB-identified research participants to conservatively religious non-LGB-identified

sexual minorities. All told, we believe there is much room for a deeper and more nuanced accounting within the IH literature as concerns conventionally religious sexual minorities.

The potential for perceptual moderation of the relationship of IH with health outcomes also deserves greater attention as a focus of study (Hatzenbeuhler, 2009). The persistence of the relationship between IH and health outcomes such as depression and anxiety is occurring within a cultural backdrop rapidly becoming more accepting of sexual minorities (Meyer et al., 2021; Newcomb & Mustanski, 2010), and suggests that some perceptual mechanisms contributing to this relationship may not be responsive to improved social conditions or reduced physical threats for LGB persons (Dyar et al., 2018). The recent discovery of MST applying to historically dominant groups (e.g., Christians) who perceive faith-based discrimination may also highlight the subjective influences potentially involved (Parent et al., 2018).

While most researchers acknowledge the correlational nature of their findings and the consequent indeterminate nature of causal influence, as is the case in our study, rarely is there any serious theoretical questioning of the assumed unidirectional causal mechanisms in MST (Zucker et al., 2016). In keeping with Wicker's (1985) excellent summary of ways to expand conceptual frameworks, we encourage researchers to explore the potential for bidirectional moderation influences in MST processes, perhaps utilizing the Stress Sensitization Model, wherein childhood adversity and trauma sensitize individuals to subsequent stress and increase reactivity via both psychological and physiological mechanisms that decrease affect-regulatory abilities (Bailey, 2020; Hammen et al., 2000). Such an expansion of MST, if validated empirically, could identify new pathways for intervention to improve health outcomes for sexual minorities.

Finally, our findings serve as a caution for clinicians who serve sexual minorities from religiously conservative backgrounds as well as for policy makers whose work will affect them. While many of these individuals ultimately leave such faith traditions for more affirming religious communities or eschew religious affiliation altogether, others choose to remain within heteronormative religious environments and appear able to satisfactorily resolve tensions between their sexual and religious experience. Our results suggest that the decision to remain in a conservative religious setting should not be *ipso facto* construed as an indicator of self-loathing and inherently toxic for well-being (e.g., Sowe et al., 2017). Instead, clinical exploration should examine the degree to which clients experience identity resolution around the prioritizing of their religious identity and the extent to which their religious context may be providing health-enhancing benefits (e.g., those associated with religious participation) that offset the stresses of being in a non-LGB-affirming environment. For their part, policy makers should consider the limitations of the current literature as pertains to religiously conservative sexual minorities and not over generalize from what may be personal negative experience with religion. We suspect consideration of these possibilities by therapists, researchers, and policy makers has been hindered by the current literature's reliance on non-traditionally religious and LGB-identified samples and constructs of potentially variant meaning when applied to religious conservative sexual minorities.

Limitations

Some limitations of our study should be highlighted. Our sample was primarily White, educated, and majority Mormon background. Hence, the findings may not generalize to samples with different racial, educational, or religious backgrounds. However, the sample appeared to be particularly diverse as pertains to theological (and likely sociopolitical) viewpoints, with 396 (30.1%) participants reporting a conservative theological orientation, 522 (39.6%) indicating a moderate, liberal, or heterodox theological view, and the remaining 399 (30.3%) identifying as uncertain/confused, agnostic, atheist, spiritual or some other designation.

Furthermore, several of our measures consisted of single items developed for this research for which psychometric properties could not be established, such as our measure of identity conflict resolution. Though not ideal, this is a common limitation of exploratory research. Future research is needed with racially and economically diverse samples using psychometrically established instruments to determine the reliability of our findings. Finally, the study's cross-sectional nature does not allow for a determination of causation in our findings. For example, it also possible preexisting levels of well-being lead to specific differences in certain participant characteristics (e.g., less depression enables greater religious activity).

Conclusion

We examined a large sample of sexual minority persons obtained from ideologically and theologically diverse social networks to determine how IH, four markers of religiousness, and resolution of identity conflict predicted three types of health outcomes. After accounting for age, education, and race, we found that IH was related to greater depression and anxiety while resolving conflict between sexual and religious identities was related to less depression and anxiety and better physical health. Furthermore, active religious participation moderated the association of IH with depression, such that at higher levels of religious activity, IH was less strongly associated with depression. These findings have special salience for directing culturally sensitive research, clinical work, and public policy with conservatively religious sexual minorities that does not assume their faith communities inherently produce adverse health outcomes.

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Data availability All data were collected anonymously. No names of participants or other identifying information was obtained during the survey process.

Declarations

Conflict of interest The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Ethical approval Idaho State University Institutional Review Board, Pocatello, Idaho (No. ISU – IRB FY15-75).

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