Suicide and Life-Threatening BEHAVIOR
THE OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF SUICIDOLOGY

DOI: 10.1111/sltb.12372

Religion, Sexual Orientation, and Suicide Attempts Among a Sample of Suicidal Adolescents

Annie Shearer, BA, Jody Russon, PhD, Joanna Herres, PhD, Amanda Wong, Carrie Jacobs, PhD, Gary M. Diamond, PhD, and Guy S. Diamond, PhD

Despite condemnation of same-sex attraction by certain religious groups, few studies have explored the relationship between religion, same-sex attraction, and suicidality. This study examined the moderating effect of same-sex attraction on the relationship between parent/adolescent religiosity and suicide ideation/attempts in a suicidal adolescent sample (N = 129). Linear and negative binomial regressions tested the effects of a two-way dichotomous (same-sex attraction, yes/no) by continuous (religiosity) interaction on ideation and attempts, respectively. The interaction was not significant for ideation. However, high religiosity was associated with more attempts in youth reporting same-sex attraction but fewer attempts in those reporting opposite-sex attraction only.

Youth who report nonheterosexual identities, behaviors, and/or attractions exhibit higher rates of suicide ideation and attempts than strictly heterosexual youth (Bostwick et al., 2014). Lesbian, gay, and bisexual (LGB) youth are four times, and questioning (Q) youth two times, more likely to attempt suicide than heterosexual teens (Kann et al., 2016). Although overall attitudes are improving (Hicks & Lee, 2006), certain religious groups continue to denounce homosexuality (Herek & McLemore, 2013). For example, Christian fundamentalism is significantly associated with LGB prejudice (Laythe, Finkel, & Kirkpatrick, 2001). Religious fundamentalism also predicts more explicit antigay attitudes among Muslims (Anderson & Koc, 2015).

The admonishment of LGBQ persons by certain organized religions may contribute to the elevated rates of suicidality in this population (Hong, Espelage, & Kral, 2011). For instance, religious participation and commitment are inversely correlated with psychological well-being among young GB men (Meanley, Pingel, & Bauermeister, 2016). Interestingly, LGB adults who report a religious affiliation (e.g., Protestant) report fewer suicide attempts than those without an

Annie Shearer and Jody Russon, Couple and Family Therapy Department, Drexel University, Philadelphia, PA, USA; Joanna Herres, The College of New Jersey, Ewing, NJ, USA; Amanda Wong, Couple and Family Therapy Department, Drexel University, Philadelphia, PA, USA; Carrie Jacobs, The Attic Youth Center, Philadelphia, PA, USA; Gary M. Diamond, Department of Psychology, Ben-Gurion University, Beer-Sheva, Israel; Guy S. Diamond, Couple and Family Therapy Department, Drexel University, Philadelphia, PA, USA.

We want to thank the network of primary care clinicians, their patients, and families for their contribution to this project, and clinical research facilitated through the Pediatric Research Consortium (PeRC) at The Children's Hospital of Philadelphia.

Address correspondence to Annie Shearer, University of Pittsburgh School of Medicine, Pittsburgh, PA 15213; E-mail: ams599@pitt.edu

affiliation (Kralovec, Fartacek, Fartacek, & Plöderl, 2012). They do, however, report more internalized homophobia (internalization of negative attitudes toward LGB persons), which was also associated with more severe suicide ideation. In another study, Christian LGB persons reported significantly more internalized homonegativity than nonreligious LGB individuals (Sowe, Brown, & Taylor, 2014). Former Christian LGB participants also reported higher religious-sexuality distress than nonreligious participants, which the authors attributed to the negative impact of growing up in a religious environment on LGB individuals, regardless of current beliefs. Heterosexual Orthodox Jews also report an association between religiosity and life satisfaction, but gay Orthodox Jews do not (Harari, Glenwick, & Cecero, 2014). Finally, LGB youth who attend religiously affiliated schools report a greater number of alcohol-related problems than those who attend nonreligious schools (Stewart, Heck, & Cochran, 2015). Combined, these findings suggest religion plays a different role in the psychosocial development of LGB persons than their heterosexual peers.

Given the high rates of suicidal behaviors in the LGBQ community, it is surprising that few studies have examined the specific relationship between religious beliefs and suicidality in this population (Kralovec et al., 2012). Thus, we examined whether the relationship between religiosity and suicidality depended on same-sex versus opposite-sex attraction in a sample of suicidal adolescents. We hypothesized that both adolescent and parent religiosity would protect heterosexual youth against more severe suicidality (Gearing & Lizardi, 2009), but would increase risk of suicidality for LGBQ youth.

METHOD

Participants

The study utilized pretreatment data from 129 adolescents (ages 12–18) participating in a clinical trial for depression and suicidality (NIH Grant RO1 MH091059). Patients were referred from local hospitals, emergency rooms, and schools. Inclusionary criteria included high levels of suicide ideation (Suicide Ideation Questionnaire ≥ 31) and depression (Beck Depression Inventory ≥ 20). Exclusionary criteria included (1) imminent risk of harm to self or others; (2) psychosis; (3) cognitive impairment; (4) a non-English-speaking parent; and (5) having recently begun a new medication. The institutional review boards at the Children's Hospital of Philadelphia and Drexel University approved the study protocol.

The sample largely self-identified as female (82.9%), with a mean age of 14.96 (SD = 1.66). A little over half of the sample identified as Black/African American (55.8%, n = 72), and 15.5% (n = 20) identified as Hispanic. With regard to religion, 28 adolescents reported that they were Catholic (21.7%), 45 reported that they were Other Christian/Protestant (34.9%), 3 reported that they were Jewish (2.3%), 5 Muslim (3.9%), 2 Buddhist (1.6%), and 1 Hindu (0.8%). Of the parents, 36 reported that they were Catholic (27.9%), 51 reported Other Christian/Protestant (39.6%), 5 Jewish (3.9%), 7 Muslim (5.4%), and 1 Hindu (0.8%).

Measures

In the demographics questionnaire, adolescents were asked to report their sexual orientation (who they were "emotionally, physically, or sexually attracted to"). Those reporting same-sex attraction, attraction to both sexes, and unsure of who they were attracted to were coded as 1 (31.9%, n = 41). We did not ask the adolescents to report sexual identity. They also reported how religious they were and how religious they believed their parent to be using the following scale: 3 = *more than average*, 2 = *about average*, 1 = *less than average*, or 0 = *not religious*. Parents rated their own and their adolescent's religiosity on the same scale. Level

TABLE 1
Bivariate Correlations Between Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. LGBQ (1)	–									
2. Number of attempts	.12	–								
3. Suicide ideation	.09	.23**	–							
4. Adolescent religiosity	−.28**	−.13	−.02	–						
5. Parent religiosity	−.13	−.08	.05	.51**	–					
6. Age	.05	.002	.04	.09	.18*	–				
7. Gender	−.13	−.13	.002	.08	.06	−.04	–			
8. Minority (0)	.12	−.003	−.10	−.23**	−.32**	.13	−.08	–		
9. Hispanic (1)	.03	.02	−.06	−.02	.01	−.13	−.13	−.24**	–	
10. Income-to-needs ratio	−.12	−.01	−.10	−.07	−.13	−.004	−.01	.44**	−.14	–

*$p < .05$,**$p < .01$.

of suicidality was measured using two separate variables. The Suicide Ideation Questionnaire (Reynolds & Mazza, 1999) assessed ideation severity and the Columbia Suicide Severity Rating Scale (Posner et al., 2011) measured number of past suicide attempts. An attempt was defined as "steps taken to harm oneself with intent to die" (e.g., swallowing pills). Number of attempts ranged from 0 to 10 ($M = 1.01$, $SD = 2.01$), with 39.5% ($n = 51$) of the sample reporting at least one attempt).

Data Analytic Plan

First, we examined bivariate correlations between study variables. Next, linear regression (for the ideation outcome) and negative binomial regression[1] (for the number of suicide attempts outcome; Atkins & Gallop, 2007) tested the effects of religiosity, sexual attraction, and their interaction on suicidality, with controls for demographic variables (age, race, ethnicity, per capita ratio, and gender).

RESULTS

Table 1 shows bivariate correlations among the variables. Same-sex attraction was associated with less religiosity, but not number of attempts. Two linear regression models tested the effects of sexual attraction, religiosity, and their interaction on suicide ideation severity (with controls for demographic variables). Neither the parent religiosity model, F (8, 119) = .49, p = n.s., nor the adolescent religiosity model was significant, F (8, 119) = .59, p = n.s.

A negative binomial regression testing the main effects of sexual attraction and adolescent[2] religiosity on number of suicide attempts was not significant, χ^2 (7) = 12.640, $p = .08$. However, model fit improved with the inclusion of the interaction between sexual attraction and adolescent religiosity [χ^2 (8) = 27.77, $p = .001$; Δdeviance (1) = 15.13, $p < .001$]. The significant interaction effect (see Table 2) indicated that the relationship between adolescent religiosity and number of suicide

[1]We chose the negative binomial distribution because goodness-of-fit indices indicated that the negative binomial distribution fit the data better than the Poisson distribution.

[2]The adolescent religiosity variable was created using combined adolescent–parent report of teen religiosity. The parent religiosity variable was also created using this combined informant report.

TABLE 2
Negative Binomial Regression Predicting Number of Suicide Attempts

	Adolescent Religiosity					Parent Religiosity				
	B	*SE*	Wald χ^2 (95% CI)	*p*	Exp(*B*) (95% CI)	*B*	*SE*	Wald χ^2 (95% CI)	*p*	Exp(*B*) (95% CI)
(Intercept)	0.02	1.40	0.00 (−2.73 to 2.77)	.99	1.02 (0.07–15.95)	−1.46	1.38	1.12 (−4.16 to 1.24)	.29	0.23 (0.02–3.45)
Non-LGBQ (0)	−0.64	0.33	3.73 (−1.30 to 0.01)	.05	0.53 (0.27–1.01)	−0.53	0.29	3.42 (−1.10 to 0.03)	.06	0.59 (0.33–1.03)
Religiosity	0.36	0.27	1.83 (−0.16 to 0.88)	.18	1.43 (0.85–2.41)	0.63	0.20	10.03 (0.24 to 1.03)	.02	1.89 (1.27–2.79)
Per capita ratio	0.01	0.12	0.01 (−0.22 to 0.25)	.92	1.01 (0.80–1.28)	0.00	0.12	0.00 (−0.23 to 0.23)	.98	1.00 (0.80–1.26)
Gender	−1.05	0.37	8.10 (−1.77 to −0.33)	.00	0.35 (0.17–0.72)	−0.95	0.37	6.64 (−1.68 to −0.23)	.01	0.39 (0.19–0.80)
Minority (0)	−0.21	0.45	0.21 (−1.10 to 0.68)	.65	0.81 (0.33–1.97)	−0.38	0.46	0.68 (−1.29 to 0.53)	.41	0.68 (0.28–1.69)
Hispanic (0)	0.03	0.41	0.01 (−0.77 to 0.83)	.95	1.03 (0.46–2.28)	−0.12	0.39	0.00 (−0.78 to 0.75)	.98	0.99 (0.46–2.13)
Age	0.04	0.09	0.16 (−0.14 to 0.21)	.69	1.04 (0.87–1.24)	0.13	0.09	1.87 (−0.05 to 0.30)	.17	1.13 (0.95–1.36)
LGBQ × Religiosity	1.11	0.33	11.50 (−1.75 to −0.47)	.00	0.34 (0.17–0.63)	−1.44	0.27	29.06 (−1.96 to −0.92)	.00	0.24 (0.14–0.40)

In the negative binomial regression, categorical variables are analyzed by comparing all categories with a reference category, which is set to *B* = 0. Also, note that religiosity was coded on a 4-point scale such that 0 = *not religious and 3 = more religious than average*. LGBQ, lesbian, gay, bisexual, questioning.

attempts depended on the participants' sexual attraction. For other-sex attracted youth, religiosity was associated with fewer suicide attempts, whereas for same-sex attracted youth, religiosity was associated with more suicide attempts (see Figure 1).

Another negative binomial regression model testing the effects of sexual attraction and parent religiosity on number of suicide attempts was also not statistically significant, likelihood ratio χ^2 (7) = 11.11, p = .13, until the interaction between sexual attraction and adolescent religiosity was included [χ^2 (8) = 38.59, $p < .05$; Δdeviance (1) = 27.48, $p < .01$]. The significant interaction suggests that the relationship between parent religiosity and number of suicide attempts depends on adolescents' sexual attraction (see Table 2). For opposite-sex attracted youth, participants with more religious parents made fewer suicide attempts, whereas for same-sex attracted youth, participants with more religious parents reported more suicide attempts (see Figure 2).

DISCUSSION

Religion aims to create an existential reason for living and typically condemns suicide (Gearing & Lizardi, 2009). For LBGQ youth, however, religious teachings may contribute to stigma and prejudice (Barnes & Meyer, 2012), which could in turn increase risk of suicidality. Our findings support this assumption. For youth attracted to the opposite sex, being more religious or having a more religious parent was associated with fewer suicide attempts in a highly suicidal population. However, for youth attracted to the same sex, being more religious or having a more religious parent was associated with an increase in suicide attempts. The fact that both interactions were significant, and that adolescents and parents reported on their degree of religiosity separately, increases the validity of these findings.

There are several ways to understand the association between religiosity and suicidal behaviors. First, some fundamentalist religious organizations demonstrate clear and overt admonishment of LGBQ identities and same-sex relationships (Herek & McLemore, 2013). These homophobic messages can permeate the institution, giving permission for discrimination. Consequently, adolescents who live in more religious households may experience daily rejection and conflict over their sexual identity or romantic relationships, even from parents and other family members.

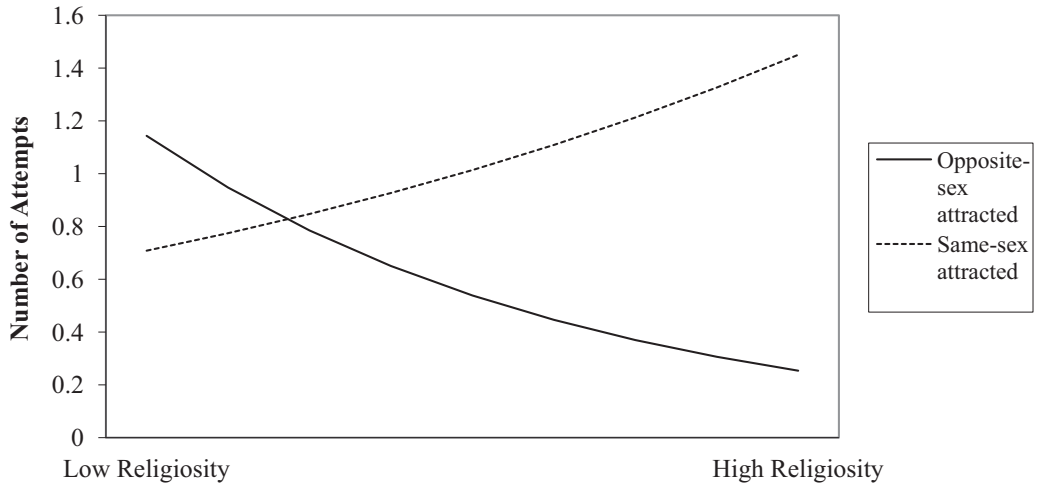

Figure 1. The interaction between adolescent religiosity and same-sex attraction on number of suicide attempts.

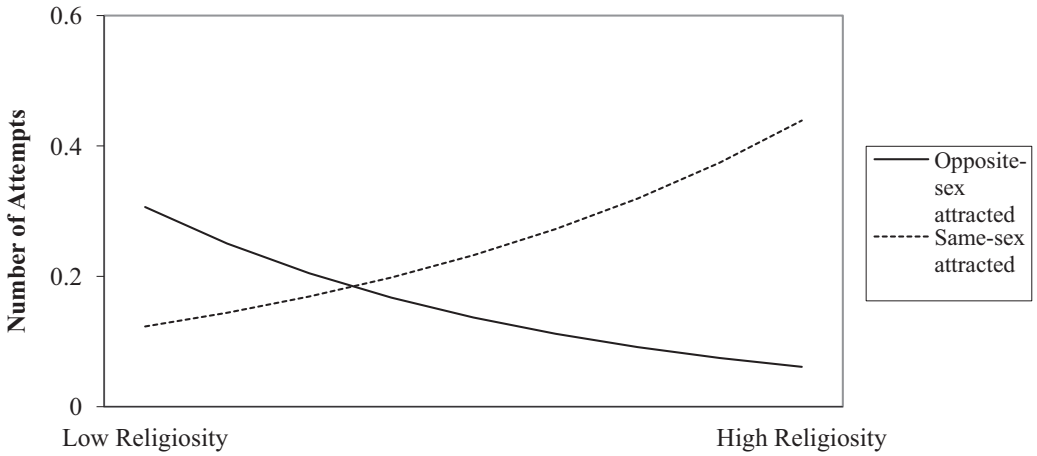

Figure 2. The interaction between parent religiosity and same-sex attraction on number of suicide attempts.

In addition, same-sex attracted youth who are religious may come to internalize these discriminatory messages themselves, resulting in self-hatred, shame, or guilt (i.e., internalized homophobia). Research suggests that adolescents who feel they must chose either their religious or sexual identity at the expense of the other report more internalized homophobia than youth who do not experience such religion–sexuality conflicts (Ream & Savin-Williams, 2005). Indeed, there is an association between nonaffirming religions and internalized homophobia among LGB persons (Barnes & Meyer, 2012). Internalized homophobia is, in turn, associated with internalizing problems among LGB persons (see Newcomb & Mustanski, 2010, for a review).

Interestingly, we did not find an interaction between sexual attraction and religiosity on suicide ideation. One explanation is that participants were recruited on high levels of ideation, not attempts, resulting in reduced between-group variation on this variable. Another is that adolescents attracted to the same sex face additional challenges not experienced by heterosexual youth. A variety of factors (e.g., bullying) may contribute to suicide ideation among teens, regardless of orientation. LGBQ youth, however, face unique stressors, particularly in religious environments (e.g., institutional/familial rejection), that may push them from ideation to attempt.

One limitation of the study was that religiosity and sexual orientation were measured by single items rather than comprehensive measures that assess the full spectrum of beliefs, behaviors, and identities. Additionally, our sample had a high percentage of females. This is not necessarily surprising for a suicidal sample as females typically endorse higher levels of suicide ideation and behaviors (e.g., Bostwick et al., 2014), regardless of orientation.

Clinical Implications

Clinicians should be aware that religion is not necessarily a protective factor for same-sex attracted youth, and may actually place them at increased risk for attempts. Helping such youth reconcile religion–sexuality conflicts could be an extremely valuable goal of therapy. Within the family therapy context, therapists can work to improve relationships between adolescents and persistently nonaccepting parents (Diamond & Shpigel, 2014; Diamond et al., 2012). In addition to making parents aware of the harmful effects of homophobia, these therapies could improve social support in the home, potentially buffering against future suicide risk.

REFERENCES

Anderson, J., & Koc, Y. (2015). Exploring patterns of explicit and implicit anti-gay attitudes in Muslims and atheists. *European Journal of Social Psychology*, *45*, 687–701.

Atkins, D. C., & Gallop, R. J. (2007). Rethinking how family researchers model infrequent outcomes: A tutorial on count regression and zero-inflated models. *Journal of Family Psychology*, *21*, 726–735.

Barnes, D. M., & Meyer, I. H. (2012). Religious affiliation, internalized homophobia, and mental health in lesbians, gay men, and bisexuals. *American Journal of Orthopsychiatry*, *82*, 505–515.

Bostwick, W. B., Meyer, I., Aranda, F., Russell, S., Hughes, T., Birkett, M., et al. (2014). Mental health and suicidality among racially/ethnically diverse sexual minority youths. *American Journal of Public Health*, *104*, 1129–1136.

Diamond, G. M., Diamond, G. S., Levy, S., Closs, C., Ladipo, T., & Siqueland, L. (2012). Attachment-based family therapy for suicidal lesbian, gay, and bisexual adolescents: A treatment development study and open trial with preliminary findings. *Psychotherapy*, *49*, 62–71.

Diamond, G. M., & Shpigel, M. S. (2014). Attachment-based family therapy for lesbian and gay young adults and their persistently nonaccepting parents. *Professional Psychology: Research and Practice*, *45*, 258–268.

Gearing, R. E., & Lizardi, D. (2009). Religion and suicide. *Journal of Religion and Health*, *48*, 332–341.

Harari, E., Glenwick, D. S., & Cecero, J. J. (2014). The relationship between religiosity/spirituality and well-being in gay and heterosexual Orthodox Jews. *Mental Health, Religion & Culture*, *17*, 886–897.

Herek, G. M., & McLemore, K. A. (2013). Sexual prejudice. *Annual Review of Psychology*, *64*, 309–333.

Hicks, G. R., & Lee, T. T. (2006). Public attitudes toward gays and lesbians: Trends and predictors. *Journal of Homosexuality*, *51*(2), 57–77.

Hong, J. S., Espelage, D. L., & Kral, M. J. (2011). Understanding suicide among sexual minority youth in America: An ecological systems analysis. *Journal of Adolescence*, *34*, 885–894.

Kann, L., Olsen, E. O., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., & Zaza, S. (2016). Sexual identity, sex of sexual contacts, and health-related behaviors among students in grades 9–12—United States and selected sites, 2015. *MMWR Surveillance Summaries*, *65*(9), 1–202. Retrieved from http://www.thetrevorproject.org/pages/facts-about-suicide

Kralovec, K., Fartacek, C., Fartacek, R., & Plöderl, M. (2012). Religion and suicide risk in lesbian, gay and bisexual Austrians. *Journal of Religion and Health*, *53*, 413–423.

Laythe, B., Finkel, D., & Kirkpatrick, L. A. (2001). Predicting prejudice from religious fundamentalism and right-wing authoritarianism: A multiple-regression approach. *Journal for the Scientific Study of Religion*, *40*, 1–10.

Meanley, S., Pingel, E. S., & Bauermeister, J. A. (2016). Psychological well-being among religious and spiritual-identified young gay and bisexual men. *Sexuality Research & Social Policy*, *13*, 35–45.

Newcomb, M. E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review*, *30*, 1019–1029.

Posner, K., Brown, G. K., Stanley, B., Brent, D. A., Yershova, K. V., Oquendo, M. A., et al. (2011). The Columbia Suicide Severity Rating Scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *The American Journal of Psychiatry*, *168*, 1266–1277.

Ream, G. L., & Savin-Williams, R. C. (2005). Reconciling Christianity and positive non-heterosexual identity in adolescence, with implications for psychological well-being. *Journal of Gay and Lesbian Issues in Education*, *2*(3), 19–36.

Reynolds, W. M., & Mazza, J. J. (1999). Assessment of suicidal ideation in inner-city children and young adolescents: Reliability and validity of the Suicidal Ideation Questionnaire-JR. *School Psychology Review*, *28*, 17–30.

Sowe, B. J., Brown, J., & Taylor, A. J. (2014). Sex and the sinner: Comparing religious and nonreligious same-sex attracted adults on internalized homonegativity and distress. *American Journal of Orthopsychiatry*, *84*, 530–544.

Stewart, B. T., Heck, N. C., & Cochran, B. N. (2015). A comparison of sexual minority youth who attend religiously affiliated schools and their nonreligious-school-attending counterparts. *Journal of LGBT Youth*, *12*, 170–188.

Manuscript Received: February 19, 2016
Revision Accepted: April 17, 2017