Published in final edited form as:

J Clin Child Adolesc Psychol. 2015 ; 44(3): 471–479. doi:10.1080/15374416.2013.865195.

Intrinsic Religiosity Buffers the Longitudinal Effects of Peer Victimization on Adolescent Depressive Symptoms

Sarah W. Helms, Michelle Gallagher, Casey D. Calhoun, Sophia Choukas-Bradley, Glen C. Dawson, and Mitchell J. Prinstein

Department of Psychology, University of North Carolina at Chapel Hill

Abstract

Peer victimization is a common and potentially detrimental experience for many adolescents. However, not all youth who are exposed to peer victimization experience maladaptive outcomes, such as depression. Thus, greater attention to potential moderators of peer victimization is particularly important. The current study examined the potential moderating effect of intrinsic religiosity and religious attendance on the longitudinal association between physical and relational victimization and depressive symptoms. A diverse sample of adolescents ($N = 313$; $M_{\text{age}} = 17.13$ years; 54% female; 49% Caucasian, 24% African American, 19% Latino, 8% mixed race/other; 80% Christian religious affiliation) were recruited from a rural, low-income setting. Adolescents completed self-report measures of religious attendance and intrinsic religiosity, and two forms of victimization (i.e., physical and relational) were assessed using sociometric procedures in 11th grade. Depressive symptoms were measured in both 11th and 12th grade. Results suggest that relational victimization is associated prospectively with depressive symptoms only under conditions of adolescents' low intrinsic religiosity. Findings may contribute to efforts aimed at prevention and intervention among adolescents at risk for peer victimization and depression.

A remarkably high proportion of adolescents are victimized by peers (Hoover, Oliver, & Hazler, 1992). Peer victimization includes youths' targeted exposure either to physical (e.g., being hit, pushed, or confronted) or relationally aggressive acts (e.g., rumor spreading or social exclusion; Crick & Grotpeter, 1995, 1996; Galen & Underwood, 1997; Lagerspetz, Björkqvist, & Peltonen, 1988). Peer victimization is associated concurrently and longitudinally with maladaptive outcomes, including internalizing, externalizing, social, and academic problems (e.g., Hanish & Guerra, 2002; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1998). However, recent reviews suggest that the deleterious effects of peer victimization are inconsistent. When psychological effects of victimization are reported, findings suggest surprisingly small effect sizes, particularly when peer victimization and outcomes do not share method variance (Reijntjes, Kamphuis, Prinzie, & Telch, 2010). Thus, a focus of recent work has been to identify psychosocial, biological, and environmental variables that may attenuate or exacerbate the association between peer victimization and maladaptive outcomes (e.g., Prinstein, Cheah, & Guyer, 2005; Rudolph, Troop-Gordon, & Granger, 2011). The current study examines the moderating role of

intrinsic religiosity on the longitudinal association between peer victimization and depressive symptoms.

Several moderators of the association between peer victimization and psychological adjustment have been examined in prior work. Most of these moderating variables pertain to factors that reflect adolescents' cognitive or emotional processing of peer victimization experiences. For instance, prior work has suggested that victimized youth who attribute their peers' aggression to their own characterological weaknesses (i.e., in a self-blaming or self-critical manner) are especially likely to exhibit internalizing symptoms, including depression (Graham & Juvonen, 1998; Perren, Ettekal, & Ladd, 2013; Prinstein et al., 2005). As compared to other peer victimized youth, those who utilize fewer emotion-focused coping strategies are also especially likely to report later internalizing symptoms (Kochenderfer-Ladd, 2004). Recent work has suggested that a large proportion of youth also find solace and coping support through religion and spirituality. Research suggests that within the United States, 91% of adolescents report a belief in God or other higher power, 83% report engaging in personal prayer, and 50% of adolescents report attending religious services at least monthly (Denton, Pearce, & Smith, 2008).

Adolescents' religiosity/spirituality involves at least two distinct constructs: (a) a distal or behavioral domain (e.g., frequency of prayer or service attendance) and (b) a proximal or functional domain (e.g., religious coping, spiritual connectedness, religious meaning; Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006; Pargament, 1997). Behavioral domains of religiosity are relevant for understanding individuals' access to support networks connected to religious practice; however, among youth, this construct may be confounded by parents' religious practices. In contrast, the proximal domain of religiosity may offer an especially relevant protective role in adolescents' developmental trajectories toward health risk behaviors (Cotton, Larkin, Hoopes, Cromer, & Rosenthal, 2005; Cotton et al., 2006; Nonnemaker, McNeely, & Blum, 2003; Pearce, Little, & Perez, 2003). Thus, it is important to examine proximal domains of religion/spirituality above and beyond mere attendance or religious participation.

Emerging evidence suggests that proximal religiosity/spirituality moderates the impact of stressful life events on depressive symptoms (Ahmed, Fowler, & Toro, 2011; Carpenter, Laney, & Mazulis, 2012), particularly for girls (Desrosiers & Miller, 2007). One important proximal domain that has emerged in the literature is intrinsic religiosity, defined as personal religious commitment or motivation (i.e., the pursuit of religion as an end in itself). Consistent with other proximal domains, intrinsic religiosity is associated with lower levels of depressive symptoms and suicide risk in adolescents (Chang-Ho, Perry, & Clarke-Pine, 2011; Greening & Stoppelbein, 2002). Intrinsic religiosity also may be relevant as a moderator of the association between peer victimization and adjustment, perhaps especially because peer victimization often is an uncontrollable stressor, limiting problem-focused coping options. However, this has not been examined previously.

The present study examined the potential moderating role of intrinsic religiosity and religious attendance on the longitudinal association between peer victimization (both physical and relational) and adolescents' depressive symptoms. Depressive symptoms are an

especially relevant outcome for youth who experience peer victimization, and perhaps relational forms of victimization in particular (e.g., Desjardins & Leadbeater, 2011; Sinclair et al., 2012). A focus on adolescence is important given that this is a period of unique developmental vulnerability for increases in depressive symptoms, as well as an increase in the frequency of, and emotional reactivity to, interpersonal stressors (Rudolph, 2002).

It was hypothesized that intrinsic religiosity would moderate the longitudinal association between peer victimization and depressive symptoms, after controlling for prior symptoms and frequency of religious attendance. The present study examined these associations simultaneously for physical and relational victimization to determine the unique impact of each of these subtypes of peer victimization on subsequent psychopathology. Given recent work on the impact of relational victimization on depressive cognitions and symptoms (Desjardins & Leadbeater, 2011; Sinclair et al., 2012), we hypothesized that relational victimization would demonstrate a unique relation, above and beyond the effects of physical victimization, on depressive symptoms. Finally, we examined the possible moderating role of gender on relations between peer victimization, intrinsic religiosity, and depressive symptoms. However, given mixed evidence on gender differences in the extant peer victimization and depression literatures and limited evidence in the religion/spirituality literature, these analyses remained exploratory.

METHODS

Participants and Procedures

Participants for the current study included 313 adolescents (54% female; 49% Caucasian, 24% African American, 19% Latino, 8% mixed race/other) recruited from three rural, low-income high schools in the southeastern United States. District school records indicated that 67% of students from these schools were eligible for free or reduced-price lunch. Most adolescents reported living in two-parent households (46% with biological parents, 18% with a parent and stepparent or grandparent); 22% reported living in a single-parent household. The majority of participants self-identified as Christian ($n = 251$, 80%), with fewer identifying as Jewish ($n = 1$), Hindu ($n = 2$), Wiccan ($n = 1$), Atheist/Agnostic/Nonreligious ($n = 13$), or stating that they did not know what religion they considered themselves to be ($n = 33$).

All procedures were approved by a university Institutional Review Board and included active parental consent at baseline and active adolescent assent at each data collection point. All ninth-grade students from three participating high schools were recruited, excluding students in self-contained special education classrooms ($N = 712$). Various adolescent-, teacher-, and school-based incentives (e.g., candy, gift card raffles) were provided for returned parental consent forms, regardless of decisions whether to participate. Consent forms were returned by 75% of families ($n = 533$), with 80% of parents consenting to their child's participation ($n = 423$). As part of a multiwave study of adolescent development, data for the current analyses were included beginning when the students were in the 11th grade ($M_{\text{age}} = 17.13$ years, $SD = 0.48$), and follow-up data were collected approximately one year later.

Since the initiation of the study when adolescents were in the ninth grade, 88 participants moved or dropped out of school, one was deceased, seven declined to participate, and 39 were absent on the day of 11th-grade data collection, yielding a current baseline sample of 288 adolescents (68% retention). An additional 29 participants returned to the sample by the current follow-up, and 52 were lost to attrition (16 were absent, 15 had graduated early, 20 had moved or dropped out of school, and one declined to participate), yielding the current follow-up sample of 265 adolescents. Across these two time points, there were 313 adolescents (74% of originally consented sample) with self-report data available at one or both time points for the current study. Attrition analyses revealed that participants with and without missing data across the two time points did not differ on any study variables, Little's Missing Completely at Random test, $\chi^2(33) = 33.06, p = .46$. Thus, all 313 participants were included in the current analyses using full information direct maximum likelihood estimation for missing values. Attrition analyses also confirmed that the current sample ($n = 313$) did not differ from the full sample assessed at the larger study's baseline ($n = 399$) on any study variables.

Measures

Physical and relational peer victimization—Peer victimization was assessed at Time 1 using sociometric nominations. For each construct (i.e., physical victimization and relational victimization; Crick & Grotpeter, 1996), adolescents were presented with an alphabetized roster of all students in their grade, from which they were asked to nominate an unlimited number of peers. Participants could nominate and be nominated by both boys and girls. Physical victimization was assessed using the item, “Who gets threatened or physically hurt by others?” and relational victimization was assessed using the item, “Who gets left out of activities, ignored by others because one of their friends is mad at them, gossiped about, or has mean things said behind their backs?” The order of alphabetized names on rosters was counterbalanced (i.e., A through Z and Z through A) to control for possible order effects on nominee selection (e.g., Prinstein & Cillessen, 2003). For each participant, the sum of the number of nominations received was standardized within school and grade, such that each participant received a standardized physical victimization score and a standardized relational victimization score. Participants with physical ($n = 6$) and relational ($n = 6$) victimization scores greater than 3 *SD* above the mean were recoded to the value of 3 *SD* to avoid undue influence from outlier effects. Higher scores indicate higher levels of victimization relative to peers. The use of sociometric nomination procedures to assess peer victimization has been strongly supported in prior research, due to the ability to provide reliable and valid indicators that are not influenced by self-report biases (e.g., Coie & Dodge, 1983).

Religious attendance—Frequency of religious attendance was assessed via self-report at Time 1 with an item adapted from the National Longitudinal Study of Adolescent Health (2008): “How often have you attended church, synagogue, temple, mosque, or other religious services in the past 6 months?” Participants responded on a 7-point scale: 1 (*never*), 2 (*less than once a month*), 3 (*once a month*), 4 (*a few times a month*), 5 (*two or three times a month*), 6 (*once a week*), 7 (*more than once a week*). A recent review of adolescent religiosity and mental health research suggests that religious attendance is one of the most commonly used single-item measures of religiosity and often is associated with mental

health outcomes (Dew et al., 2008). Six-month test–retest reliability in the current sample suggests that the construct is relatively stable over time ($r = .72, p < .001$).

Intrinsic religiosity—The Duke University Religion Index (Koenig & Büssing, 2010) was used to assess intrinsic religiosity via self-report at Time 1. The Intrinsic Religiosity subscale measures an individual's personal religious motivation and commitment (i.e., engaging in religion as an end in itself) using three items assessing the experience of the divine/God in daily life, reliance on religious beliefs as an approach to life, and trying to carry over religious beliefs into one's dealings in life. Items were scored on a 5-point scale (*definitely not true* to *definitely true*), with higher scores indicating greater intrinsic religiosity. Prior research has demonstrated good reliability and validity for this subscale (e.g., Koenig & Büssing, 2010), and internal consistency with the current sample also was good ($\alpha = .89$).

Depressive symptoms—Depressive symptoms were assessed at Times 1 and 2 using the Mood and Feelings Questionnaire (Costello & Angold, 1988). The MFQ is a 33-item self-report questionnaire designed to assess criteria for depression in youth. Items include statements such as “I felt miserable or unhappy” and “I cried a lot.” Each item is scored on a 3-point scale: 0 (*not true*), 1 (*sometimes true*), and 2 (*mostly true for the individual over the past 2 weeks*). Higher scores are indicative of higher levels of depressive symptoms. Prior research supports the reliability and validity of the MFQ (e.g., Daviss et al., 2006), and internal consistency of this measure was excellent in the current study ($\alpha s = .95$ and $.93$ at Times 1 and 2, respectively).

Data Analysis

Two hierarchical multiple regression analyses were conducted to examine primary study hypotheses. First, a full regression model was examined, wherein baseline depressive symptoms, gender, religious variables (attendance and intrinsic religiosity), and victimization variables (relational and physical victimization) were regressed on Time 2 depressive symptoms at Step 1, along with all possible two-way and three-way interaction terms entered at Steps 2 and 3, respectively. To address concerns of possible suppression effects due to multicollinearity among predictors, a reduced model also was examined, retaining only significant interaction terms. All variables were mean centered prior to calculating interaction terms. Post hoc probing of significant moderator effects was conducted based on typical guidelines, involving computing product terms at low and high (± 1 *SD*) levels of the moderator, computing simple slopes, and examining statistical significance of slopes at different levels of the moderator (Aiken & West, 1991; Preacher, Curran, & Bauer, 2006).

RESULTS

Preliminary Analyses

Descriptive statistics for all study variables are presented in Table 1 for the total sample and separately by gender. Independent samples *t* tests revealed three significant gender differences for primary study variables. Specifically, boys were peer-nominated more

frequently than girls as victims of physical aggression, $t(222.45) = 3.39, p < .001, d = .41$; girls self-reported higher levels of depressive symptoms than did boys at Time 1, $t(281) = -2.34, p = .02, d = .28$, and at Time 2, $t(260) = -2.30, p = .02, d = .30$. Nearly three fourths of participants reported attending church or religious services once per month or more in the past 6 months at Time 1, and 40% reported attendance once or more per week. Mean frequency of religious attendance and intrinsic religiosity did not differ significantly for male and female participants.

Table 2 presents bivariate correlations among all study variables for the total sample. Moderate to strong positive correlations were observed between physical and relational victimization ($r = .47, p < .001$), religious attendance and intrinsic religiosity ($r = .47, p < .001$), and depressive symptoms at Time 1 and Time 2 ($r = .64, p < .001$). These correlations did not differ by gender, with two exceptions; the relation between physical victimization and intrinsic religiosity differed for male ($r = .12$) and female participants ($r = -.14, z = 2.06, p = .04$), as did the relation between physical and relational victimization ($r = .67$ for male, $r = .26$ for female; $z = 4.69, p < .001$).

Associations Among Peer Victimization, Intrinsic Religiosity, and Depressive Symptoms

First, a full model was examined with all possible two-way and three-way interaction terms to explore possible gender effects and rule out competing hypotheses regarding religious moderator effects (i.e., intrinsic religiosity vs. religious attendance) and victimization subtypes (i.e., relational vs. physical). Analyses revealed no significant gender interactions, and as a result these terms were dropped from future analyses. Furthermore, the only significant interaction effect within the full model was Intrinsic Religiosity $\times$ Relational Victimization ($B = -.05, SE B = .02, \beta = -.16, p = .02$).

Subsequently, a reduced model was examined, with nonsignificant interaction terms removed (i.e., controlling for all main effects at Step 1 and entering only Intrinsic Religiosity $\times$ Relational Victimization at Step 2). Results confirmed the significant interaction effect for Intrinsic Religiosity $\times$ Relational Victimization on Time 2 depressive symptoms ($\beta = -.12, p = .02$; see Table 3). Post hoc probing of interactions (see Figure 1) was conducted based on standard guidelines (Holmbeck, 2002) using a model with only intrinsic religiosity, relational victimization, and their product term, all based on mean-centered values. Findings indicate that under conditions of low levels of intrinsic religiosity ($-1 SD$), increased relational victimization was associated with higher levels of depressive symptoms over time (simple slope $\beta = .07, p = .01$). Under conditions of high levels of intrinsic religiosity ($+1 SD$), increased relational victimization was not associated with higher levels of depressive symptoms over time (simple slope $\beta = -.04, p = .11$).

DISCUSSION

Peer victimization is common during adolescence and can be associated with a range of maladaptive outcomes for some youth, including depressive symptoms (e.g., Hawker & Boulton, 2000; Juvonen & Graham, 2001; Reijntjes et al., 2011; Reijntjes et al., 2010). However, many adolescents who experience peer victimization do not experience detrimental outcomes, and as a result there has been a need for greater attention to

moderating variables, including coping resources that may serve as moderators (e.g., Prinstein et al., 2005). Although prior work suggests that religiosity protects against adolescents' development of health risk behaviors (Cotton et al., 2006), to date, the peer victimization literature has not attended to the potential role of religious or spiritual coping among adolescents. Consistent with predictions, the current findings revealed that intrinsic religiosity moderated the longitudinal relationship between peer victimization and depressive symptoms, even when controlling for frequency of religious attendance. However, the reverse did not hold true for religious attendance, when controlling for intrinsic religiosity. Specifically, results indicated that among youth with lower intrinsic religiosity, higher levels of relational victimization were associated with higher levels of depressive symptoms over a 1-year follow-up period, whereas among youth with higher intrinsic religiosity, higher relational victimization was not associated with higher levels of depressive symptoms over time.

The moderating effect of intrinsic religiosity may be explained via several potential mechanisms. First, researchers have proposed a form of religious coping that may be uniquely related to mental health outcomes above and beyond the effects of nonreligious coping (Tix & Frazier, 1998). Insofar as intrinsic religiosity may fit within a broader frame of religious coping strategies, the current findings may highlight potential cognitive or emotion regulation functions of religiosity in moderating the impact of relational victimization on later depressive symptoms. For example, depressive symptoms have been associated with maladaptive coping styles, problems with affect, and emotion regulation deficits (e.g., Abramson, Metalsky, & Alloy, 1989; Aldao & Nolen-Hoeksema, 2012; Anderson & Hope, 2008; Broderick & Korteland, 2002). By contrast, intrinsic religiosity may serve emotion regulation functions, through its relationship to adaptive attributional styles and/or lower levels of hopelessness (Ciarrocchi & Brelsford, 2009; Greening & Stoppelbein, 2002; Watts, 2007).

Within the broader stress and coping literature, engagement or approach-based coping and problem-focused coping have been associated with better psychosocial outcomes, and specifically with fewer internalizing symptoms (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Additional research on specific forms of religious coping and their effect on adjustment is needed, as different subtypes of religious coping may vary in effectiveness at buffering the impact of stressful life events on depression (Carpenter et al., 2012). For example, forms of positive religious coping that have been proposed as promoting adaptive outcomes may include benevolent cognitive reframing and positive spiritual support or connection. By contrast, negative religious coping strategies such as religious punishment-based reappraisals or spiritual discontent may contribute to poorer psychosocial adjustment (Carpenter et al., 2012; Pargament, Smith, Koenig, & Perez, 1998). Preliminary research suggests that two specific coping mechanisms—personal agency beliefs and direct coping behaviors—may mediate the relationship between spirituality and depressive symptoms among girls (Pérez, Little, & Henrich, 2009). Further study of the role of intrinsic religiosity may contribute to this growing body of literature.

In addition to possible sources of cognitive and emotional coping, the moderating role of religiosity may be associated with its relationship to faith-based social support (Holder et al.,

2000). A large body of research suggests that religious involvement is linked to larger social networks and more satisfaction with levels of social support received (e.g., Ellison & George, 1994). Specifically, recent work demonstrates a positive association between intrinsic religiosity and perceived social support from spiritual peers and family (Holder et al., 2000). Low social support also has been linked to adolescent depression (Weber, Puskar, & Ren, 2010) and may moderate the impact of peer victimization on depressive symptoms (Seeds, Harkness, & Quilty, 2010). Thus, it is possible that the increased social support often associated with religion/spirituality may help to buffer against depression in adolescents experiencing peer victimization. In fact, some research indicates that higher levels of religious social support are inversely associated with depressive symptoms in youth (Harris et al., 2008; Miller & Gur, 2002; Pearce et al., 2003). Given the paramount importance of social relationships in adolescence, future research in this area should include variables that examine social support as well as other aspects of peer and family relationships.

Related to these possible social mechanisms by which intrinsic religiosity may moderate the relationship between peer victimization and depressive symptoms is the current finding that intrinsic religiosity specifically moderates this association for relational, but not physical, victimization. Prior research has suggested that relational forms of victimization may be particularly harmful for adolescents, given the salience of the adolescent peer context and perceived damage of social or relational attacks (e.g., Crick, Casas, & Nelson, 2002). This unique effect of relational rather than physical victimization has been linked with depressive cognitions in children and adolescents (Sinclair et al., 2012). In comparison with physical victimization, the relationship-based mechanisms of harm characteristic of relational victimization may threaten adolescents' sense of identity, particularly within the peer group (Crick et al., 2002). Emerging research on religious or spiritual identity development highlights the potential importance of this form of cultural identity for adolescents (Good & Willoughby, 2008; Magaldi-Dopman & Park-Taylor, 2010), similar to findings on the protective effects of other forms of cultural identity (e.g., racial/ethnic identity; Quintana, 2007). Future work should explore possible links between intrinsic religiosity and spiritual identity development during adolescence, particularly if this form of spirituality may be protective against the unique threats to adolescents' social identities characteristic of relational victimization.

Although this study included exploratory analyses examining gender as a moderator of the longitudinal relationship between peer victimization and depression, no significant effects were found. Prior research has varied with regard to gender differences; some studies have demonstrated a unique association between relational victimization and depressive symptoms for girls (Prinstein, Boergers, & Vernberg, 2001), whereas other research has not supported these gender differences (Desjardins & Leadbeater, 2011). Current findings suggest that relational victimization may contribute to increases in depressive symptoms for both boys and girls, and that religiosity may be an important protective factor across genders. More research is needed to clarify these relationships.

The current study offers a robust test of the moderation of peer victimization on depressive symptoms through the use of peer nomination to reduce possible shared method variance concerns associated with purely self-reported victimization and depression data. Although

the current study comprised a racially/ethnically diverse sample, future work should expand on the current findings in different geographic regions where religious attendance and importance may vary (e.g., Wallace, Forman, Caldwell, & Willis, 2003) and among samples with greater heterogeneity in religious affiliations. Given the predominantly Christian affiliation within the current sample, limited conclusions can be drawn about the moderating effect of intrinsic religiosity within other religious groups. Indeed, this has been noted as a limitation in much of the prior literature on religion/spirituality, which largely has utilized Judeo-Christian samples (e.g., Cotton et al., 2006). In addition, future work may examine the generality of findings among youth of different socioeconomic statuses and clinically referred youth, who may be experiencing a more severe range of psychopathology than the current normative sample. Of note, the current sample included mid- to late adolescents who may have a more developed sense of religious identity (Good & Willoughby, 2008); future work should examine the extent to which findings may vary in younger adolescents or children for whom religious beliefs and identity are still developing.

In sum, the current study contributes to the literature on mental health outcomes of peer victimization by examining associations among peer victimization and depressive symptoms, and by testing intrinsic religiosity as a moderator of these relations. Results may help to inform prevention and intervention efforts during this important developmental period, particularly in guiding efforts tailored to the unique role of relational victimization in increasing risk for depressive symptoms. Several researchers have presented models for school-based programs in which aspects of spirituality such as introspection, the search for meaning, generosity, and connectedness are taught to students to promote resilience (Elias, Bryan, Patrikakou, & Weissberg, 2003; LeBlanc, 2008). In addition, the integration of aspects of adolescents' religious or spiritual identity into individual psychotherapy has been noted as an important therapeutic topic and one for which psychologists require greater training and multicultural awareness (Magaldi-Dopman & Park-Taylor, 2010). Further research is needed to understand how religiosity may function as a protective factor for adolescents and how best to bolster this form of resilience among victimized youth.

References

- Abramson LY, Metalsky GI, Alloy LB. Hopelessness depression: A theory-based subtype of depression. *Psychological Review*. 1989; 96:358–372. DOI: 10.1037/0033-295X.96.2.358
- Ahmed SR, Fowler PJ, Toro PA. Family, public and private religiousness and psychological well-being over time in at-risk adolescents. *Mental Health, Religion & Culture*. 2011; 14:393–408. DOI: 10.1080/13674671003762685
- Aiken, LS., West, SG. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage; 1991.
- Aldao A, Nolen-Hoeksema S. When are adaptive strategies most predictive of psychopathology. *Journal of Abnormal Psychology*. 2012; 121:276–281. DOI: 10.1037/a0023598 [PubMed: 21553934]
- Anderson ER, Hope DA. A review of the tripartite model for understanding the link between anxiety and depression in youth. *Clinical Psychology Review*. 2008; 28:275–287. DOI: 10.1016/j.cpr.2007.05.004 [PubMed: 17582665]
- Broderick PC, Korteland C. Coping style and depression in early adolescence: Relationships to gender, gender role, and implicit beliefs. *Sex Roles*. 2002; 46:201–213. DOI: 10.1023/A:1019946714220

- Carpenter TP, Laney T, Mazulis A. Religious coping, stress, and depressive symptoms among adolescents: A prospective study. *Psychology of Religion and Spirituality*. 2012; 4:19–30. DOI: 10.1037/a0023155
- Chang-Ho CC, Perry T, Clarke-Pine D. Considering personal religiosity in adolescent delinquency: The role of depression, suicidal ideation, and church guideline. *Journal of Psychology and Christianity*. 2011; 30:3–15.
- Ciarrocchi JW, Brelsford GM. Spirituality, religion, and substance coping as regulators of emotions and meaning making: Different effects on pain and joy. *Journal of Addictions and Offender Counseling*. 2009; 30:24–36. DOI: 10.1002/j.2161-1874.2009.tb00054.x
- Coie JD, Dodge KA. Continuities and changes in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly*. 1983; 29:261–282.
- Compas BE, Connor-Smith JK, Saltzman H, Thomsen A, Wadsworth ME. Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*. 2001; 127:87–127. DOI: 10.1037/0033-2909.127.1.87 [PubMed: 11271757]
- Costello EJ, Angold A. Scales to assess child and adolescent depression: Checklists, screens, and nets. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1988; 27:726–737. DOI: 10.1097/00004583-198811000-00011 [PubMed: 3058677]
- Cotton S, Larkin E, Hoopes A, Cromer BA, Rosenthal SL. The impact of adolescent spirituality on depressive symptoms and health risk behaviors. *Journal of Adolescent Health*. 2005; 36:529.e7–529.e14. DOI: 10.1016/j.jadohealth.2004.07.017
- Cotton S, Zebracki K, Rosenthal SL, Tsevat J, Drotar D. Religion/spirituality and adolescent health outcomes: A review. *Journal of Adolescent Health*. 2006; 38:472–480. DOI: 10.1016/j.jadohealth.2005.10.005 [PubMed: 16549317]
- Crick NR, Casas JF, Nelson DA. Toward a more comprehensive understanding of peer maltreatment: Studies of relational victimization. *Current Directions in Psychological Science*. 2002; 11:98–101. DOI: 10.1111/1467-8721.00177
- Crick NR, Grotpeter JK. Relational aggression, gender, and social-psychological adjustment. *Child Development*. 1995; 66:710–722. DOI: 10.2307/1131945 [PubMed: 7789197]
- Crick NR, Grotpeter JK. Children's treatment by peers: Victims of relational and overt aggression. *Development and Psychopathology*. 1996; 8:367–380. DOI: 10.1017/S0954579400007148
- Daviss WB, Birmaher B, Melhem NA, Axelson DA, Michaels SM, Brent DA. Criterion validity of the Mood and Feelings Questionnaire for depressive episodes in clinic and non-clinic subjects. *Journal of Child Psychology and Psychiatry*. 2006; 47:927–934. DOI: 10.1111/j.1469-7610.2006.01646.x [PubMed: 16930387]
- Denton, ML., Pearce, LD., Smith, C. Religion and spirituality on the path through adolescence. National Study of Youth and Religion, University of North Carolina at Chapel Hill; 2008. Research Report No. 8
- Desjardins TL, Leadbeater BJ. Relational victimization and depressive symptoms in adolescence: Moderating effects of mother, father, and peer emotional support. *Journal of Youth and Adolescence*. 2011; 40:531–544. DOI: 10.1007/s10964-010-9562-1 [PubMed: 20577897]
- Desrosiers A, Miller L. Relational spirituality and depression in adolescent girls. *Journal of Clinical Psychology*. 2007; 63:1021–1037. DOI: 10.1002/jclp.20409a [PubMed: 17828762]
- Dew R, Daniel SS, Armstrong TD, Goldston DB, Triplett M, Koenig HG. Religion/spirituality and adolescent psychiatric symptoms: A review. *Child Psychiatry and Human Development*. 2008; 39:381–398. DOI: 10.1007/s10578-007-0093-2 [PubMed: 18219572]
- Elias MJ, Bryan K, Patrikakou EN, Weissberg RP. Challenges in creating effective home–school partnerships in adolescence: Promising paths for collaboration. *School Community Journal*. 2003; 13:133–153.
- Ellison CG, George LK. Religious involvement, social ties, and social support in a southeastern community. *Journal for the Scientific Study of Religion*. 1994; 33:46–61. DOI: 10.2307/1386636
- Galen BR, Underwood MK. A developmental investigation of social aggression among children. *Developmental Psychology*. 1997; 33:589–600. DOI: 10.1037/0012-1649.33.4.589 [PubMed: 9232374]

- Good M, Willoughby T. Adolescence as a sensitive period for spiritual development. *Child Development Perspectives*. 2008; 2:32–37. DOI: 10.1111/j.1750-8606.2008.00038.x
- Graham S, Juvonen J. Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology*. 1998; 34:587–599. DOI: 10.1037/0012-1649.34.3.587 [PubMed: 9597367]
- Greening L, Stoppelbein L. Religiosity, attributional style, and social support as psychosocial buffers for African American and White adolescents' perceived risk for suicide. *Suicide and Life-Threatening Behavior*. 2002; 32:404–417. DOI: 10.1521/suli.32.4.404.22333 [PubMed: 12501965]
- Hanish LD, Guerra NG. A longitudinal analysis of patterns of adjustment following peer victimization. *Development and Psychopathology*. 2002; 14:69–89. DOI: 10.1017/S0954579402001049 [PubMed: 11893095]
- Harris SK, Sherritt LR, Holder DW, Kulig J, Shrier LA, Knight JR. Reliability and validity of the Brief Multidimensional Measure of religiousness/spirituality among adolescents. *Journal of Religion and Health*. 2008; 47:438–457. DOI: 10.1007/s10943-007-9154-x [PubMed: 19093673]
- Hawker DJ, Boulton MJ. Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry*. 2000; 41:441–455. DOI: 10.1111/1469-7610.00629 [PubMed: 10836674]
- Holder DW, Durant RH, Harris TL, Daniel J, Obeidallah D, Goodman E. The association between adolescent spirituality and voluntary sexual activity. *Journal of Adolescent Health*. 2000; 26:295–302. DOI: 10.1016/S1054-139X(99)00092-0 [PubMed: 10734277]
- Holmbeck GN. Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology*. 2002; 27:87–96. DOI: 10.1093/jpepsy/27.1.87 [PubMed: 11726683]
- Hoover JH, Oliver R, Hazler RJ. Bullying: Perceptions of adolescent victims in the midwestern USA. *School Psychology International*. 1992; 13:5–16. DOI: 10.1177/0143034392131001
- Juvonen J, Graham S. Peer harassment in school: The plight of the vulnerable and victimized. New York, NY: Guilford; 2001.
- Kochenderfer-Ladd B. Peer victimization: The role of emotions in adaptive and maladaptive coping. *Social Development*. 2004; 13:329–349. DOI: 10.1111/j.1467-9507.2004.00271.x
- Koenig HG, Büssing A. The Duke University Religion Index (DUREL): A five-item measure for use in epidemiological studies. *Religions*. 2010; 1:78–85. DOI: 10.3390/rel1010078
- Lagerspetz KMJ, Björkqvist K, Peltonen T. Is indirect aggression typical of females? Gender differences in aggressiveness in 11- to 12-year-old children. *Aggressive Behavior*. 1988; 14:403–414. DOI: 10.1002/1098-2337
- LeBlanc G. A developmental-ecological perspective on the role of spirituality in the development of meaningfulness in adolescent boys. *Research in the Social Scientific Study of Religion*. 2008; 19:255–277. DOI: 10.1163/ej.9789004166462.i-299.95
- Magaldi-Dopman D, Park-Taylor J. Sacred adolescence: Practical suggestions for psychologists working with adolescents' religious and spiritual identity. *Professional Psychology: Research and Practice*. 2010; 41:382–390. DOI: 10.1037/a0020941
- Miller L, Gur M. Religiosity, depression, and physical maturation in adolescent girls. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2002; 41:206–214. DOI: 10.1097/00004583-200202000-00015 [PubMed: 11837411]
- National Longitudinal Study of Adolescent Health. Wave IV In-Home Interview Section 13: Religion and Spirituality [Code book]. 2008. Retrieved from <http://www.cpc.unc.edu/projects/addhealth/codebooks/wave4>
- Nonnemaker JM, McNeely CA, Blum RW. Public and private domains of religiosity and adolescent health risk behaviors: Evidence from the National Longitudinal Study of Adolescent Health. *Social Science & Medicine*. 2003; 57:2049–2054. DOI: 10.1016/S0277-9536(03)00096-0 [PubMed: 14512236]
- Pargament, KI. *Psychology of religion and coping: Theory, research, and practice*. New York, NY: Guilford; 1997.

- Pargament KI, Smith BW, Koenig HG, Perez L. Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion*. 1998; 37:710–724. DOI: 10.2307/1388152
- Pearce MJ, Little TD, Perez JE. Religiousness and depressive symptoms among adolescents. *Journal of Clinical Child and Adolescent Psychology*. 2003; 32:267–276. DOI: 10.1207/S15374424JCCP3202_12 [PubMed: 12679285]
- Pérez JE, Little TD, Henrich CC. Spirituality and depressive symptoms in a school-based sample of adolescents: A longitudinal examination of mediated and moderated effects. *Journal of Adolescent Health*. 2009; 44:380–386. DOI: 10.1016/j.jadohealth.2008.08.022 [PubMed: 19306797]
- Perren S, Ettekal I, Ladd G. The impact of peer victimization on later maladjustment: Mediating and moderating effects of hostile and self-blaming attributions. *Journal of Child Psychology and Psychiatry*. 2013; 54:46–55. DOI: 10.1111/j.1469-7610.2012.02618.x [PubMed: 23057732]
- Preacher KJ, Curran PJ, Bauer DJ. Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*. 2006; 31:437–448.
- Prinstein MJ, Boergers J, Vernberg EM. Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology*. 2001; 30:479–491. DOI: 10.1207/S15374424JCCP3004_05 [PubMed: 11708236]
- Prinstein MJ, Cheah CL, Guyer AE. Peer victimization, cue interpretation, and internalizing symptoms: Preliminary concurrent and longitudinal findings for children and adolescents. *Journal of Clinical Child and Adolescent Psychology*. 2005; 34:11–24. DOI: 10.1207/s15374424jccp3401_2 [PubMed: 15677277]
- Prinstein M, Cillessen A. Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly*. 2003; 49:310–342. DOI: 10.1353/mpq.2003.0015
- Quintana SM. Racial and ethnic identity: Developmental perspectives and research. *Journal of Counseling Psychology*. 2007; 54:259–270. DOI: 10.1037/0022-0167.54.3.259
- Reijntjes A, Kamphuis JH, Prinzie P, Boelen PA, van der Schoot M, Telch MJ. Prospective linkages between peer victimization and externalizing problems in children: A meta-analysis. *Aggressive Behavior*. 2011; 37:215–222. DOI: 10.1002/ab.20374 [PubMed: 21433031]
- Reijntjes A, Kamphuis JH, Prinzie P, Telch MJ. Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse and Neglect*. 2010; 34:244–252. DOI: 10.1016/j.chiabu.2009.07.009 [PubMed: 20304490]
- Rudolph KD. Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health*. 2002; 30(4):3–13. DOI: 10.1016/S1054-139X(01)00383-4
- Rudolph KD, Troop-Gordon W, Granger DA. Individual differences in biological stress responses moderate the contribution of early peer victimization to subsequent depressive symptoms. *Psychopharmacology*. 2011; 214:209–219. DOI: 10.1007/s00213-010-1879-7 [PubMed: 20505926]
- Schwartz D, McFadyen-Ketchum SA, Dodge KA, Pettit GS, Bates JE. Peer group victimization as a predictor of children's behavior problems at home and in school. *Development and Psychopathology*. 1998; 10:87–99. DOI: 10.1017/S095457949800131X [PubMed: 9524809]
- Seeds PM, Harkness KL, Quilty LC. Parental maltreatment, bullying, and adolescent depression: Evidence for the mediating role of perceived social support. *Journal of Clinical Child and Adolescent Psychology*. 2010; 39:681–692. DOI: 10.1080/15374416.2010.501289 [PubMed: 20706920]
- Sinclair KR, Cole DA, Dukewich T, Felton J, Weitlauf AS, Maxwell MA, Jacky A. Impact of physical and relational peer victimization on depressive cognitions in children and adolescents. *Journal of Clinical Child and Adolescent Psychology*. 2012; 41:570–583. [PubMed: 22867436]
- Tix AP, Frazier PA. The use of religious coping during stressful life events: Main effects, moderation, and mediation. *Journal of Consulting and Clinical Psychology*. 1998; 66:411–422. DOI: 10.1037/0022-006X.66.2.411 [PubMed: 9583344]
- Wallace JM, Forman TA, Caldwell CH, Willis DS. Religion and U.S. secondary school students: Current patterns, recent trends, and sociodemographic correlates. *Youth & Society*. 2003; 35:98–125. DOI: 10.1177/0044118X03254564

Watts, F. Emotion regulation and religion. In: Gross, JJ., editor. Handbook of emotion regulation. New York, NY: Guilford; 2007. p. 504-520.

Weber S, Puskar KS, Ren D. Relationships between depressive symptoms and perceived social support, self-esteem, and optimism in a sample of rural adolescents. *Issues in Mental Health Nursing*. 2010; 31:584–588. DOI: 10.3109/01612841003775061 [PubMed: 20701421]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

FIGURE 1.

Interaction of relational victimization and intrinsic religiosity predicting depressive symptoms over time. *Note:* High and low levels of the moderator (intrinsic religiosity) were coded as ± 1 *SD*. High and low levels of relational victimization were assigned to reflect the full observed range of values (-1.14 to 3.00). The simple slope for the line reflecting low levels of intrinsic religiosity was significant ($\beta = .07$, $p = .01$); simple slope for high levels of intrinsic religiosity was not significant ($\beta = -.04$, $p = .11$).

TABLE 1

Descriptive Statistics and Tests of Gender Differences

	Total Sample		Boys		Girls		t(df)	Effect Size (d)	Observed Range
	M	SD	M	SD	M	SD			
Religious Attendance	4.42	2.14	4.38	2.17	4.45	2.12	-0.28(274)	0.03	1-7
Intrinsic Religiosity	3.56	1.09	3.52	1.09	3.59	1.10	-0.48(274)	0.06	1-5
Physical Victim (z Score)	-0.05	0.66	0.09	0.80	-0.17	0.48	3.39(222.45)***	0.41	-0.41-3.00
Relational Victim (z Score)	0.01	0.83	-0.03	0.86	0.04	0.80	-0.79(306)	0.08	-0.65-3.00
Depression (Time 1)	0.30	0.33	0.25	0.31	0.34	0.33	-2.34(281)*	0.28	0-1.70
Depression (Time 2)	0.24	0.28	0.19	0.25	0.27	0.29	-2.30(260)*	0.30	0-1.48

Note: Values reflect observed data among adolescents participating at Times 1 and/or 2 ($N = 262$ to 283 for self-report measures, $N = 308$ for peer-nomination measures).

* $p < .05$.

*** $p < .001$.

TABLE 2

Bivariate Correlations

	1	2	3	4	5
1. Depression (Time 1)	—				
2. Depression (Time 2)	.64***	—			
3. Religious Attendance	.03	.06	—		
4. Intrinsic Religiosity	-.03	.04	.47***	—	
5. Physical Victimization	-.04	.05	-.01	.00	—
6. Relational Victimization	.05	.09	-.04	-.06	.47***

Note: Values reflect observed data among adolescents participating at Times 1 and/or 2 ($N = 226-308$).

 $p < .001$.

TABLE 3
Hierarchical Linear Regression Examining Longitudinal Prediction of Depressive Symptoms

Predictors	Step Statistics				Final Statistics		
	R ²	R ²	B	SE (B)	β	B	SE (B)
Step 1	.19***						
Baseline Depressive Symptoms			.36	.05	.41***	.34	.05
Gender			.07	.03	.12*	.07	.03
Religious Attendance			.00	.01	.01	.00	.01
Intrinsic Religiosity			.01	.01	.05	.01	.01
Relational Victimization			.01	.02	.03	.01	.02
Physical Victimization			-.01	.03	-.01	.00	.03
Step 2	.02*						
Intrinsic Religiosity $\times$ Relational Victimization						-.04	.02

Note: Gender was coded 0 = male, 1 = female.

* $p < .05$.

*** $p < .001$.