

Evaluating the Religious Commitment Inventory for Adolescents

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Although numerous studies link adolescent religiousness to a variety of outcomes, limitations in the measurement of adolescent religiousness constrain interpretation of the findings. We introduce a multi-item measure of adolescent religiousness, the Religious Commitment Inventory for Adolescents (RCI-A), that assesses both religious behavior and sentiments and is appropriate for use with adolescents of varying religious faiths. Ninth graders ($N = 1,419$) completed the RCI-A and several other survey instruments online. Results revealed that the RCI-A has strong psychometric properties (e.g., internal consistency, test–retest reliability, and construct validity) and is appropriate for use with adolescents from a variety of religious faiths. Furthermore, it predicted engagement in risk behavior (cigarette, marijuana, and alcohol use).

Keywords: adolescent, religiousness, risk behavior, measurement

Numerous studies link adolescent religiousness to a variety of outcomes. Among the most important findings is that religious adolescents are less likely than nonreligious adolescents to engage in a variety of risky behaviors such as substance use. For example, religious adolescents in Canada and the United States (representing the Midwest in some studies and the entire country in other studies) report that they are less likely than nonreligious adolescents to smoke cigarettes, drink alcohol, and use illicit drugs (Adlaf & Smart, 1985; Amey, Albrecht, & Miller, 1996; Cochran & Akers, 1989; Dunn, 2005; Miller, Davies, & Greenwald, 2000; Nonnemaker, McNeely, & Blum, 2003; Steinman & Zimmerman, 2004; Wallace & Forman, 1998). Although researchers have shown the link between adolescent religiousness and risky behavior in many studies, several limitations in the measurement of adolescent religiousness limit interpretation of these findings.

First, a review of the religiousness–risk behavior relationship reveals that researchers commonly measure religiousness with single items, such as frequency of church attendance (Rew & Wong, 2006). Although single-item measures of religiousness can explain a significant proportion of the variance captured by multi-item measures (Gorsuch, 1984), single-item measures are problematic because they have unknown reliability (McIver & Carmines, 1981). Moreover, single-item measures do not allow for more sophisticated statistical analysis strategies, such as structural modeling, that focus on assessing the latent content of measures.

Second, many researchers have assessed religiosity using behavioral measures such as frequency of attendance and participa-

tion in religious services and events (Rew & Wong, 2006), perhaps because of the ease with which behavioral measures can be defined and operationalized. However, behavioral measures that simply ask adolescents to estimate their public religious involvement might reflect parents' rather than the adolescents' choices and beliefs. In addition, measures that focus on behavior classify nonreligious adolescents as individuals who are uninvolved in an organized religion even though some of these adolescents might have strong religious sentiments. Using behavioral measures is also problematic because they are proxy measures that do not directly assess the underlying psychology that conceivably influences other dimensions of behavior. In addressing these concerns, some researchers have operationalized religiousness as a self-judgment (e.g., "How important is religion to you?"). Researchers often pair a single self-judgment item with single-item measure of service attendance to assess adolescent religiousness (e.g., Bahr, Maughan, Marcos, & Li, 1998; Hardy, 2003; Mason & Windle, 2001, 2002). Although this two-item approach is preferable to measurement of a construct with a single item, it is likely less precise than measuring a construct with a psychometrically validated scale.

Finally, many available measures of religiousness assess Christian religiousness and exclude other faiths (Cornwall, Albrecht, Cunningham, & Pitcher, 1986; Hill & Hood, 1999). Even scales that do not overtly reference Christian religious figures or stories often include references to attending "church" or "Bible study" (e.g., Age Universal Religious Orientation Scale; Gorsuch & Venable, 1983), limiting the applicability to non-Christian participants.

One exception to these criticisms is the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzter Institute/National Institute on Aging Working Group, 1999). The BMMRS measures several dimensions of religiousness/spirituality, and the wording of the items permits assessment of non-Christians. Although the BMMRS was created for adult samples, researchers report that most BMMRS subscales are reliable and valid when used with adolescent participants (Harris et al., 2008). However, some items on the BMMRS (i.e., "During the last year about how

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much was the average monthly contribution of your household to your congregation or to religious causes?") are likely difficult for adolescents to answer. Furthermore, researchers report low internal consistency in two subscales (i.e., Forgiveness and Negative Religious/Spiritual Coping; Harris et al., 2008). Finally, although the items from the BMMRS permit the inclusion of non-Christians, some items assume participants represent Judeo-Christian faiths (e.g., "How often do you pray privately in places other than at church or synagogue?").

Religious Commitment Inventory for Adolescents

One measure of religiousness that addresses these concerns in research with adult samples is the 10-item Religious Commitment Inventory (RCI-10; Worthington et al., 2003). The RCI-10 defines religiousness in terms of adherence to one's religious values, beliefs, and practices in one's daily living. This definition and the items that compose the measure encompass both religious sentiments and behavior.

The RCI-10 has strong psychometric characteristics and is designed to be appropriate for adults from all faith backgrounds in that the items do not reference any particular faith (Worthington et al., 2003). The RCI-10 appears to measure religiousness reliably among Christians, Buddhists, Hindus, Muslims, and nonreligious undergraduates, with Cronbach's alpha ranging from .92 to .98 for various religious groups. Furthermore, nonreligious undergraduates score significantly lower on the RCI-10 than do religious undergraduates. Finally, Christians and Muslims score significantly higher than do Buddhists on the RCI-10 but do not differ from each other in their scores. It is noteworthy that the non-Christian samples were small, suggesting replication and caution in interpretation.

In the present research, we modified the RCI-10 to be appropriate for adolescents and then tested the modified instrument on a large sample of adolescents. To avoid confusion with the RCI-10, we label the modified instrument the *RCI-A*.

We set two goals and tested several predictions in this research. Our first goal was to produce a measure for adolescent religiousness that has good psychometric characteristics (clear factor structure, acceptable reliability and validity) across different groups of adolescents. An exploratory factor analysis of the RCI-10 produced two factors: Intrapersonal Religiousness and Interpersonal Religiousness (Worthington et al., 2003). Because the factors were highly correlated, the RCI-10 authors recommended treating the RCI-10 as a single scale. We tested both a one-factor and two-factor model to determine the best factor structure for the RCI-A.

Given that the RCI-10 already has strong psychometric characteristics, we predicted that scores on the RCI-A would be internally consistent for the entire sample, for boys and girls, for different race groups, and for different religious subgroups (e.g., Christians and Jews). We also predicted that RCI-A scores would be rank-order stable across time. That is, participants would show high test-retest correlations in their responses to the scale. Furthermore, we predicted that the factor structure of the RCI-A would hold across gender, race, and religious affiliation. Finally, we predicted that higher scores on our measure would correlate highly with related constructs such as the extent to which participants believe in God, attend religious services, and have dealt with difficult situations in their lives.

Our second goal was to examine the extent to which the RCI-A predicts an important outcome among adolescents: engagement in risk behavior. We noted earlier that greater religiousness corresponds with less risky behavior. Thus, we predicted that higher scores on the RCI-A would correspond to less drug use experience (e.g., alcohol, tobacco, and marijuana).

Method

Participants

The data came from a large, longitudinal study of religion and adolescent substance use. We sent approximately 12,000 letters to parents of ninth graders in school districts in central and north-central Florida inviting their child to participate in an online study examining religiousness and risk behavior. We then sent an e-mail with a personal password and link to 2,128 adolescents whose parents returned signed consent forms. Of the 1,428 people who logged into the Webpage, six were ineligible based on their grade and three withdrew without completing the Time 1 survey. In the end, 1,419 students (677 boys, 735 girls, seven not reported) completed the survey at Time 1 and 1,253 (598 boys, 649 girls, six not reported) completed a follow-up survey 6 months later at Time 2, for an 88% return rate. Participants received \$35 for completing the Time 1 survey and \$15 for completing a shorter Time 2 survey. Participants were predominantly White/non-Hispanic (White/non-Hispanic = 967, White/Hispanic = 77, African American = 144, Asian American/Pacific Islander = 37, other = 140, not reported = 54), 14 or 15 years old (13 = 14, 14 = 780, 15 = 553, 16 = 66, 17 = 6), and Christian/Protestant (Christian/Protestant = 862, Catholic = 215, agnostic = 44, atheist = 67, Hindu = 9, Muslim = 9, Jewish = 17, Buddhist = 12, Mormon = 9, other = 86, not reported = 89). Because we have no demographic information on the adolescents who received invitations, we cannot evaluate the extent to which our final sample is comparable to the larger sample that received invitations to participate in the study.

Procedure

Participants who logged into the Webpage first read an assent page that restated the purpose and duration of the study, and again described the compensation participants would receive for completing the surveys. After giving their assent to participate, participants completed the survey questionnaires, which were presented in a randomized order.

Materials

Demographic items. Demographic items assessed participants' sex, race, and religious affiliation.

Religious service attendance. We assessed frequency of religious service attendance with an item that read, "On average, how often do you attend religious services?: 0 = never, 1 = only on important holidays, 2 = once a month, 3 = two or three times a month, and 4 = once a week or more."

Importance of faith. We assessed the extent to which participants feel faith is important with an item that read, "How important is your faith in your everyday life?: 1 = not at all important to 5 = very important."

RCI. The RCI-10 is a 10-item measure of the extent to which people follow their religious values, beliefs, and practices (Worthington et al., 2003) measured on a scale from 1 (*not at all true of me*) to 5 (*totally true of me*). The original RCI had high internal consistency (Cronbach's alphas above .85), test-retest reliability over 5 months ($r = .84$), and evidence of construct validity (Worthington et al., 2003).

Although the RCI-10 is an excellent measure of religious commitment among adults, we made modifications to make the scale suitable for adolescents (see Table 1). First, we modified the wording of Items 2, 3, and 9 so that someone with only a sixth-grade reading level could understand them. Second, we split Item 10, which was double-barreled, into two items. The modified scale consisted of 11 items.

Religious coping. We measured religious coping by selecting 18 of the 105 items on the RCOPE scale (Pargament, Koenig, & Perez, 2000). We chose items on the basis of their perceived relevance to adolescents. Prior to completing the scale items, we instructed participants to think of a negative event that they had experienced in the past year. We then instructed participants to indicate the extent to which they used each strategy to cope with the negative event (0 = *not at all* to 3 = *a great deal*). Sample RCOPE items include "Saw my situation as part of God's plan" and "Prayed for a miracle."

Risk behavior. Participants reported the frequency with which they smoked cigarettes, drank alcohol, and used marijuana in the prior 6 months.

Results

Analyses Overview

To meet our research goals and test our hypotheses, we performed several analyses. In the first set of analyses, we treated the RCI-A as a measured variable and examined the test-retest reliability and internal consistency of the RCI-A across gender, race, and religious affiliation. In the second set of analyses, we treated the RCI-A as a latent variable and examined the factor structure of the RCI-A and whether the factor structure was invariant across gender, race, and religious affiliation. In addition, we examined whether latent RCI-A variables correlated with other religious measures and predicted risk behavior.

Reliability

We performed our first set of analyses using IBM SPSS 20. The RCI-A demonstrated acceptable test-retest reliability over 6 months, $r(1220) = .80, p < .001$. In addition, the RCI-A showed

Table 1
Factor Structure for the Religious Commitment Inventory for Adolescents

Item	One-factor model		Two-factor model	
	Original	Revised	Intrapersonal Religiosity	Interpersonal Religiosity
5. My religious beliefs lie behind my whole approach to life.	.81	.82	.84	—
3. I (<i>original</i> : spend time trying to grow in; <i>revision</i> : try to increase my) understanding of my faith.	.83	.83	.84	—
8. It is important to me to spend periods of time in private religious thought and reflection.	.83	.84	.85	—
7. Religious beliefs influence all my dealings in life.	.86	.87	.88	—
4. Religion is especially important to me because it answers many questions about the meaning of life.	.87	.88	.89	—
1. I often read books and magazines about my faith.	.68	.68	.68	—
9. I enjoy (<i>original</i> : working in the activities of my religious affiliation; <i>revision</i> : participating in religious activities).	.88	.87	—	.91
6. I enjoy spending time with others of my religious affiliation.	.86	.86	—	.86
2. I (<i>original</i> : make financial contributions; <i>revision</i> : give money) to my religious organization.	.69	.67	—	.69
10. <i>Original</i> : I keep well informed about my local religious group and have some influence in its decisions.	.82	.80	—	.87
10. <i>Revision Part 1</i> : I am involved in my religious group.	.82	.80	—	.87
11. <i>Revision Part 2</i> : I have some influence on the decisions of my religious group.	.77	.75	—	.81
Fit indices				
χ^2	967.0*	647.4*	513.5*	—
<i>df</i>	44	43	43	—
CFI	.93	.95	.96	—
TLI	.91	.94	.95	—
RMSEA [90% CI]	.12* [.12, .13]	.10* [.10, .11]	.09* [.08, .10]	—
SRMR	.03	.03	.03	—

Note. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

* $p < .05$.

acceptable internal consistency for the full sample, $\alpha = .96$. We also examined the internal consistency of the RCI-A by sex, race, and religious preference. The results indicated that the RCI-A is reliable for boys ($\alpha = .96$) and girls ($\alpha = .95$), and for Blacks ($\alpha = .93$), Whites ($\alpha = .96$), Asians ($\alpha = .97$), and participants who select "other" for race ($\alpha = .94$). The results also suggest that the RCI-A is suitable for measuring religious commitment among agnostics ($\alpha = .84$), Buddhists ($\alpha = .95$), Catholics ($\alpha = .94$), Christian/Protestants ($\alpha = .95$), Hindus ($\alpha = .92$), Jews ($\alpha = .92$), Muslims ($\alpha = .92$), and Mormons ($\alpha = .98$). It is important to note that we recommend viewing the findings for Hindus, Muslims, Jews, Buddhists, and Mormons with caution because of the small samples. The descriptive statistics for the RCI-A separated by various subgroups appear in Table 2. Not all participants responded to the RCI, leading to some missing data.

Perhaps not surprisingly, coefficient alpha was low for atheists ($\alpha = .59$). To explore the source of this low reliability, we examined the descriptive statistics. As expected, the mean score on the RCI-A was low, and the mode and median response for every item were 1 = *not at all true of me*, the lowest possible response option. This response pattern is not likely the source of the low coefficient alpha. Instead, we believe the low reliability is due to inconsistent variability on the individual RCI-A items. Although quite low for some items, the variability was quite high for three of the items. Item 6, "I enjoy spending time with others of my religious affiliation," showed the highest variability. The high variability for this item is problematic because it suggests that participants who identified as atheists were interpreting the mean-

ing of the item differently. Because our sample was small, it is difficult to draw conclusions about whether the RCI-A is appropriate for use with atheists.

RCI-A Factor Structure

Exploratory factor analyses of the original RCI-10 revealed that a two-factor model fit the data better than a one-factor model (Worthington et al., 2003). However, the RCI-10 authors recommended treating the scale as a one-factor scale because the factors in the two-factor model were highly correlated ($r_s > .71$). We explored whether these findings replicated with the RCI-A.

We performed a series of confirmatory factor analyses using Mplus 6 software to determine how to best conceptualize the RCI. We used five fit indices to evaluate how well each model fit the data and to compare models. The fit indices were the chi-square statistic, the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). An individual model fits reasonably well if the chi-square statistic is not significant, the CFI and TLI are $\geq .90$ (Kline, 1998), and the RMSEA and SRMR are $\leq .08$ (Browne & Cudeck, 1993; Hu & Bentler, 1998). It is noteworthy that the chi-square statistic is sensitive to sample size and will often yield a significant result even for a model with good fit when $N > 200$. Therefore, we did not use the chi-square statistic to evaluate the fit of individual models. Instead, we used the chi-square difference test of two nested models to evaluate significant improvement in model fit.

First, we tested the one-factor model. As seen in Table 1, all 11 RCI-A items loaded highly on the single RCI-A factor (loadings $\geq .68$). The CFI (.93) and TLI (.91) were above the minimum cutoff (i.e., $\geq .90$), but ideally they would be close to or above .95 (Byrne, 1994). The SRMR (.03) was well below and the RMSEA (.12) was above the suggested cutoff value (i.e., $\leq .08$). Taken together, the fit indices for the one-factor model suggested that we introduce modifications to the model to improve model fit. Based on the modification indices and theoretical considerations, we chose to allow the residuals for Items 10 and 11 to correlate. As seen in Table 1, Items 10 and 11 were drawn from a single item in the original RCI-10 scale. Because the wording for Items 10 and 11 is similar and the two items are adjacent in the RCI-A, they likely share some variance that is not due to the factor.

Our test of the revised one-factor model revealed that the factor loadings remained high ($\geq .67$), the values for the CFI (.95) and TLI (.94) increased, the value for the RMSEA (.10) decreased, and the SRMR (.03) remained the same. The chi-square difference test between the original one-factor model and revised one-factor model was significant, $\Delta\chi^2(1) = 319.6$, $p < .05$. The revised one-factor model fits the data significantly better than the unmodified one-factor model.

Finally, to be thorough, we tested the two-factor model found for the original RCI-10. The RCI-A items loaded highly on their respective factors—Intrapersonal Religiousness ($\geq .68$) and Interpersonal Religiousness ($\geq .69$)—and the two factors were highly correlated, $r = .91$, $p < .05$. The values on the CFI (.96), TLI (.95), and SRMR (.03) all suggest good model fit. The RMSEA (.09) was slightly above the rule-of-thumb cutoff of $\leq .08$. The chi-square difference test between the unmodified one-factor model revealed

Table 2
Mean Response to the RCI-A by Demographic

Demographic	<i>n</i>	<i>M</i>	<i>SD</i>
Age (years)			
13	14	3.1	1.2
14	770	2.6	1.2
15	540	2.5	1.2
16	62	2.9	1.3
17	4	1.8	1.0
Gender			
Female	725	2.7	1.2
Male	658	2.5	1.2
Race			
Asian American	37	2.5 _{ab}	1.3
Black/African American	144	3.3 _c	1.1
White/non-Hispanic	945	2.5 _a	1.2
Other	215	2.7 _b	1.2
Religious orientation			
Agnostic	44	1.3 _{ab}	0.5
Atheist	61	1.1 _a	0.2
Buddhist	12	2.6 _{acd}	1.2
Catholic	212	2.4 _c	1.1
Christian/Protestant	853	2.9 _d	1.1
Hindu	9	3.5 _{cd}	0.9
Jewish	17	2.6 _{bcd}	1.0
Mormon	9	3.9 _{cd}	1.4
Muslim	9	3.3 _{cd}	1.1
Other	85	2.6 _{cd}	1.4

Note. Means with differing subscripts are significantly different. These results should be interpreted with caution given the small sample sizes. For column 3 (*M*), the response scale was 1 (*not at all true of me*) to 5 (*totally true of me*).

that the two-factor model fit the data significantly better than the one-factor model, $\Delta\chi^2(1) = 453.5, p < .05$.

Both the revised one-factor model and the two-factor model fit the data significantly better than the unmodified one-factor model. Ultimately, we chose the revised one-factor model over the two-factor model for use in subsequent analyses for two reasons. First, the authors of the RCI-10 recommend treating their scale as a single-factor scale. Second, intrapersonal and interpersonal religiousness were highly correlated, leading to a multicollinearity problem when we used the RCI-A as a predictor in subsequent analyses.

We acknowledge a fourth potential second-order factor model that we do not present in Table 1. When first-order factors are highly correlated, researchers sometimes create a second-order model wherein the first-order factors are explained by a higher order factor. Psychometricians advise that the second-order model must have at least three first-order factors (Kline, 2005), but that investigators can add constraints to a second-order model with only two first-order indicators to reach identification. We do not present this model because it is equivalent to (i.e., yields the same predicted correlations and fit statistics) and thus cannot fit the data any better than our revised one-factor model.

Factorial Invariance

Factorial invariance testing examines whether an instrument measures the same underlying construct equally across groups (Byrne, 2004; Millsap, 1997). We tested whether our revised one-factor model was invariant across gender, race, and religious affiliation. Researchers recommend samples sizes of at least 200 per group for invariance testing (Meade & Kroustalis, 2006), which led us to combine participants from different racial and religious backgrounds. We thus considered our tests for race and religious affiliation exploratory and recommend caution in interpreting our findings.

To examine invariance, we first ran our model separately for each group (e.g., boys vs. girls) to test for configural invariance. Configural invariance addresses whether the pattern of loadings is equal across groups. Next, we used the forward (sequential constraint imposition) approach to test measurement invariance, which addresses whether the loadings, intercepts, residual variances, and covariances are equal across groups, and structural invariance, which addresses whether the factor variance is equal across groups (Dimitrov, 2010). We tested a series of models, starting from the least restricted to the most restricted. We performed nested models tests using the chi-square difference test to determine whether invariance held at each step. If the chi-square difference test between two models is not significant, we can conclude that the parameters are invariant.

As seen in Table 3, we found evidence for configural invariance when comparing our model across genders. The RCI-A items loaded highly on the RCI-A factor and the fit of the model was adequate for both the male and female models. Next, we tested for measurement invariance. We first ran a model (M0) that had no parameters constrained to equality. In the next model (M1), we constrained the factor loadings to be equal across gender. The chi-square difference test (see Table 4) between these two models was not significant, suggesting no difference across gender. For the next model (M2), we added the constraint that the items' intercepts must be equal across gender. The chi-square difference test between M2 and M1 was not significant, suggesting again no difference across gender.

For the next model (M3), we added a constraint on residual variances and covariances. The chi-square difference test between M3 and M2 was significant. We then freed the residual variance for the first RCI item (i.e., allowed it to have a different estimate for boys and girls) based on the recommendation of the modification indices. We labeled this revision M3R. The chi-square difference test between M3R and M2 was not significant. Thus, we

Table 3

Loadings and Model Fit for the Revised One-Factor Model by Gender, Race, and Religious Affiliation

Item	Gender		Race		Religious affiliation	
	Boys	Girls	White/non-Hispanic	Other	Christian/Protestant	Other believers
RCI 1	.69 (.02)	.67 (.02)	.70 (.02)	.64 (.03)	.65 (.02)	.66 (.03)
RCI 2	.68 (.02)	.70 (.02)	.69 (.02)	.64 (.03)	.65 (.02)	.66 (.03)
RCI 3	.83 (.01)	.83 (.01)	.85 (.01)	.80 (.02)	.83 (.01)	.84 (.02)
RCI 4	.89 (.01)	.87 (.01)	.88 (.01)	.86 (.02)	.87 (.01)	.84 (.02)
RCI 5	.84 (.01)	.80 (.02)	.82 (.01)	.82 (.02)	.80 (.01)	.82 (.02)
RCI 6	.85 (.01)	.86 (.01)	.86 (.01)	.84 (.02)	.85 (.01)	.86 (.02)
RCI 7	.87 (.01)	.86 (.01)	.87 (.01)	.85 (.02)	.84 (.01)	.87 (.01)
RCI 8	.83 (.01)	.84 (.01)	.86 (.01)	.80 (.02)	.82 (.01)	.83 (.02)
RCI 9	.87 (.01)	.87 (.01)	.87 (.01)	.84 (.02)	.85 (.01)	.83 (.02)
RCI 10	.82 (.01)	.79 (.02)	.80 (.01)	.80 (.02)	.78 (.01)	.76 (.02)
RCI 11	.77 (.02)	.74 (.02)	.75 (.02)	.73 (.03)	.70 (.02)	.79 (.02)
Fit Indices						
χ^2	368.2	350.4	502.2	214.2	478.6	186.5
<i>df</i>	43	43	43	43	43	43
CFI	.95	.95	.95	.95	.94	.96
TLI	.94	.94	.94	.93	.93	.94
RMSEA [90% CI]	.11 [.10, .12]	.10 [.09, .11]	.11 [.10, .12]	.10 [.09, .12]	.11 [.10, .12]	.10 [.08, .11]
SRMR	.03	.03	.03	.03	.03	.03

Note. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Table 4
Factorial Invariance Testing of the Religious Commitment Inventory for Adolescents by Gender, Race, and Religious Affiliation

Model	χ^2	df	Model comparison	$\Delta \chi^2$	Δdf
Gender					
M0	738.9	86			
M1	743.3	96	M1–M0	4.4	10
M2	765.3	106	M2–M1	22.0	10
M3	810.0	117	M3–M2	44.7*	11
M3R	799.1	116	M3R–M2	33.8	10
M4	766.2	107	M4–M2	0.9	1
Race					
M0	716.4	86			
M1	726.1	96	M1–M0	9.7	10
M2	746.7	106	M2–M1	20.6	10
M3	819.4	117	M3–M2	72.7*	11
M3R	797.3	116	M3R–M2	50.6*	10
M3R2	781.7	115	M3R2–M2	35.0*	9
M3R3	770.9	114	M3R3–M2	24.2	8
M4	747.1	107	M4–M2	0.04	1
Religious affiliation					
M0	665.1	86			
M1	678.7	96	M1–M0	13.6	10
M2	704.7	106	M2–M1	26.0	10
M3	729.2	117	M3–M2	24.5	11
M4	705.8	107	M4–M2	1.1	1

* $p < .05$ for chi-square difference tests.

found evidence for partial measurement invariance. Factor loadings, intercepts, and residual variances/covariances were equal across gender except for one residual variance. The final model (M4) added the constraint of equal factor variance. The chi-square difference test between M4 and M2 (Note: M4 is nested within M2, not M3) was not significant. Thus, we found evidence for structural invariance of our model across gender.

We performed the same series of analyses to examine invariance across race (White/non-Hispanics vs. other) and religious affiliation (Christian/Protestant vs. other believers). As seen in Table 4, we had to free three residual variances (Items 1, 2, and 8) to achieve a nonsignificant chi-square difference for race. We know of no rule on the number of parameters that can be freed to claim partial measurement invariance. Also, psychometricians consider testing for invariance of the residual variances and covariances an overly restrictive test of the data (Bentler, 2004). Therefore, we feel comfortable concluding that we found evidence for partial measurement invariance and structural invariance for the race model. For the religious affiliation model, we compared Christian/Protestant participants with all other believers (we excluded agnostics and atheists from the analyses). As evident in Table 4, we did not need to free any parameters during the testing of the religious affiliation model. Therefore, we observed strict measurement invariance and structural invariance.

In summary, we observed partial measurement invariance for both the gender and race models, strict measurement invariance for the religious affiliation model, and structural invariance for all three models. The RCI-A appears to measure the same underlying construct equally across gender, race, and religious affiliation. As stated previously, the results regarding race and religious affiliation should be interpreted with caution.

Convergent Validity

To examine convergent validity, we correlated the RCI-A with measures of religious coping, importance of faith, and religious service attendance. As expected, higher scores on the RCI-A corresponded with greater use of religious coping strategies, $r(1412) = .78, p < .05$, importance of faith, $r(1412) = .79, p < .05$, and religious service attendance, $r(1412) = .72, p < .05$.

Predicting Risk Behaviors

As noted at the outset, prior studies have revealed that religiousness correlates with risk behavior. We examined whether the RCI-A predicted cigarette smoking and alcohol and marijuana use. To improve normality, we performed square root transformation on our risk behavior outcomes measures. As seen in Table 5, for the total sample, the RCI-A significantly predicted all three risk behaviors. Greater religiousness corresponded with less smoking, drinking, and marijuana use.

We also tested the link between religiousness and risk behavior by gender, race, and religious affiliation. For each group, we tested two models for each risk behavior. In the constrained model, we constrained to equality the factor loadings and path between religiousness and a risk behavior. In the free model, we relaxed the constraint on the path between religiousness and risk behavior. Because these two models are nested, we compared them using a chi-square difference test. A significant chi-square difference (i.e., >3.84) indicates that the constrained model does not fit as well as the free model and that the relationship between the predictor and the outcome varies by group membership.

As seen in Table 5, the chi-square difference was significant in only one case. The relationship between religiousness and smoking

Table 5

Religious Commitment Inventory for Adolescents (RCI-A) Predicting Risk Behavior for the Total Sample and by Gender, Race, and Religious Affiliation

RCI -A	Cigarette smoking						Alcohol use						Marijuana use					
	UC	SE	SC	χ^2	df	$\Delta\chi^2$	UC	SE	SC	χ^2	df	$\Delta\chi^2$	UC	SE	SC	χ^2	df	$\Delta\chi^2$
Total sample	-.48*	.11	-.12	676.4*	53		-.24*	.04	-.18	689.9*	53		-.23*	.07	-.10	684.6*	53	
Gender: Constrained	-.47*	.11		760.3*	117		-.25*	.04		778.6*	117		-.17*	.04		776.0*	117	
Gender: Free				760.2*	116	0.1				775.6*	116	3.0				775.5*	116	0.5
Boys (<i>n</i> = 677)	-.50*	.19	-.11				-.17*	.06	-.12				-.27**	.15	-.08			
Girls (<i>n</i> = 735)	-.45*	.13	-.13				-.30*	.05	-.23				-.15*	.05	-.13			
Race: Constrained	-.10*	.04		756.1*	117		-.23*	.04		750.8*	117		-.21*	.05		744.4*	117	
Race: Free				746.4*	116	9.7*				749.8*	116	1.0				744.4*	116	0.0
White (<i>n</i> = 967)	-.59*	.16	-.12				-.21*	.05	-.15				-.20*	.10	-.08			
Other (<i>n</i> = 385)	-.07	.04	-.09				-.29*	.07	-.23				-.21*	.06	-.20			
Religion: Constrained	-.46*	.12		714.4*	117		-.25*	.04		702.5*	117		-.24*	.07		719.7*	117	
Religion: Free				714.2*	116	0.2				701.9*	116	0.6				718.7*	116	1.0
Protestant (<i>n</i> = 862)	-.49*	.14	-.13				-.27*	.04	-.22				-.28*	.08	-.13			
Other (<i>n</i> = 357)	-.37	.23	-.09				-.19*	.09	-.12				-.11	.14	-.04			

Note. UC = unstandardized coefficient; SC = standardized coefficient.
* $p < .05$. ** $p < .06$.

varied by race. Greater religiousness corresponded with less smoking among White/non-Hispanic participants, but was unrelated to smoking among participants of all other racial backgrounds. To probe this finding further, we divided the "other" race category into "African Americans" and "other." For both groups, scores on the RCI-A were unrelated to cigarette smoking. We return to this finding in the Discussion section.

The nonsignificant chi-square differences for models testing other groups of participants (i.e., boys vs. girls, protestant vs. other religious groups) suggest that the relationship between religiousness and risk behavior did not vary by group membership. Instead, greater religiousness corresponded with less risk behavior (see Table 5).¹ As stated previously, we urge caution in interpreting the models testing differences between racial and religious groups because they collapse across several categories of race and religion.

Discussion

Our goal in this research was to develop and test a measure of adolescent religiousness that is psychometrically sound and that can be used with adolescents representing a diverse array of religious faiths. Using the RCI-10 as a starting point, we created the RCI-A, an 11-item measure that combines both religious behaviors and sentiments and can be meaningfully completed by members of different religious groups. Analyses revealed that the RCI-A is internally consistent and reliable across time. It is reliable for male and female adolescents, for participants of varying racial backgrounds, and for a host of religious groups. Analyses revealed that a one-factor model fit the data well and was invariant across gender, race, and religious affiliation. The RCI-A correlated in predictable ways with religious attendance, importance of faith, and the use of religious coping strategies. Finally, the RCI-A significantly predicted risk behavior.

The Utility of the RCI-A

Several findings warrant further discussion. First, the RCI-A was internally consistent for all religious groups except atheists. Although

responses of atheists to most items (i.e., low variability and at the bottom of the scale) may reflect their nonreligious status, atheists showed high variability in response to a few items, which may indicate inconsistent interpretation of the meaning of these items. The low variability in responses to some individual items and the varied interpretation of the meaning of other items can account for the low internal consistency of the RCI-A for atheists. However, the larger question is how valid is the RCI-A for use with atheists. A nomothetic approach to individual differences (Jaccard & Dittus, 1990) suggests that the RCI-A is valid for atheists because it correctly identifies atheists as low in religiousness. However, an idiographic approach to individual differences (Allport, 1937; Pelham, 1993) suggests that the RCI-A is invalid for atheists because it attempts to quantify a quality in atheists that does not exist (Britt & Shepperd, 1999). Although we had too few atheists in our sample to draw strong conclusions, the low alpha for atheists supports the idiographic approach and suggests that the RCI-A may have low utility with atheists.

Second, the RCI-A correlated highly with religious coping, importance of faith, and religious service attendance. Our measures of importance of faith and service attendance were single-item measures and the high correlation with the RCI-A may be due to the high similarity between these items and items on the RCI-A. Nevertheless, the high correlation suggests that these items may be reasonable alternative measures of religiousness when survey space is limited. However, as we noted at the outset of this article, single-item measures are not without problems. Most notable is that single-item measures do not lend themselves to sophisticated statistical analysis, such as structural modeling.

Third, the RCI-A consistently predicted risk behavior across groups with one exception: Religiousness predicted cigarette smoking for White/non-Hispanic participants, but not for participants with other

¹ We also ran the predictive models with social desirability, measured by the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972), and age included as covariates. The addition of these covariates did not change the pattern of results. The inclusion of the covariates resulted in slight decreases in the relationships between the RCI-A and both alcohol and marijuana use, but these decreases were not significant.

racial backgrounds. Although contrary to our prediction, this finding has precedent. Some other studies have found race differences in the relationship between religiousness and risk behavior (Amey et al., 1996; Brown, Parks, Zimmerman, & Phillips, 2001; Hair, Moore, Kuhfeld, & Sidorowicz, 2009; Heath et al., 1999; Wallace, Brown, Bachman, & LaVeist, 2003). The inconsistency across studies may arise from differences in sample size, sample diversity, measures of religiousness, or the outcomes examined. Alternatively, it may arise from differences in how different racial groups experience of religion. As sociologists have noted, religiousness more often reflects a choice and internalization of religious values among White Americans, for example, than Black Americans (Ellison & Sherkat, 1999), and thus would understandably be more predictive of risk behavior among White Americans. However, the finding that religiousness predicted use of alcohol and marijuana equally well for White and non-White participants is problematic for this interpretation.

Limitations and Future Directions

Our study has several limitations that suggest directions for future research. First, our sample consisted largely of White, mostly Protestant Christian adolescents. We had few participants from other religious groups. The RCI-A was reliable across groups, and invariance testing revealed that the RCI-A was invariant across religious affiliation. However, to create an “other believer” group with a large enough sample size for invariance testing, we were forced to combine several religious groups. Catholics made up a large portion of the “other believer” category, and the results of invariance testing may primarily reflect the similarities between Protestants and Catholics. Our findings must be viewed cautiously in light of low representation from some religious groups.

Second, our sample consisted of ninth graders, and our results may have varied had we examined adolescents that were older or younger than our sample. Researchers have found that in the years from 13 to 18, youth group attendance declines and the percentage of teens reporting “no religion” increases (Smith, Denton, Faris, & Regnerus, 2002). Furthermore, these researchers report that religious service attendance declines over the 5 years from eighth to 12th grade. These changes may reflect development changes experienced during adolescence. Specifically, increased capacity for abstract thought may lead adolescents to question their religious beliefs (Fowler, 1991). This questioning, combined with a desire for autonomy from parents and perhaps a granting of autonomy by parents, may lead adolescents to explore different ideologies or to reject religion altogether (Erikson, 1980; Fowler, 1991). Taken together, these findings suggest that mean scores on the RCI-A may decrease from early to late adolescence. Although we believe the meaning of the scale remains unchanged, future research should test whether the scale’s factor structure is invariant across age.

Third, religion is culturally bound and cultures vary by region of the country. For instance, researchers have found regional differences in religiousness. Southern adolescents are more likely to attend religious services weekly and participate in youth groups compared with adolescents in other regions (Northeast, North Central, West; Smith et al., 2002). Although we drew our sample of adolescents from schools in Florida, a southern state, recent surveys with adult samples suggest that Florida should not be

grouped with other southern states in levels of religiousness. For example, whereas residents of states in the Deep South (e.g., Mississippi, Georgia) appear higher than average in religiousness as measured by importance of religion and religious service attendance, Floridians do not differ from the national average in religiousness (Newport, 2012). Similarly, the percentage of Floridians who report that religion is very important in their lives, pray at least once a day, and believe in God with absolute certainty was only 1% above the national average (Pew Research Center, 2009). In addition, the percentage of Floridians who attend religious services at least once a week was 2% below the national average. To the extent that adolescents and adults from the same states are similar, the levels of religiousness we observed in our sample are likely more similar to the national statistics than to statistics for the South.

It is also worth remembering that our study examined adolescents (mostly Christian) in the United States. It remains to be seen how well our preliminary findings for other religions replicate in, and generalize to, adolescents from other cultures. Measures of religiousness written by researchers in countries with the Judeo-Christian faith traditions are often inappropriate for use in countries such as Japan, China, and India because ideas associated with religion in the Judeo-Christian world (e.g., importance of faith and belief in the transcendent) are often not applicable.

Fourth, although we observed a link between religiousness and risk behavior, our results are based on self-reported risk behavior, which may or may not reflect actual risk behavior. Moreover, it is possible that willingness to report engagement in risky behavior correlates with religiosity, leading to a bias in our results. It is noteworthy that our results were unchanged when we included social desirability as a covariate (see footnote 1). Nevertheless, the possibility of self-reporting bias speaks to the need for researchers to survey actual rather than self-reported risk behaviors, although such a goal remains exceedingly difficult. Finally, we examined only substance use. It remains to be seen whether the RCI-A predicts others risky activity such as unprotected sex, truancy, and petty crimes.

Conclusion

Religion plays a central role in the life of many adolescents. However, researchers have lacked a measure of religiousness that is applicable to adolescents of all faiths. Our measure of adolescent religiousness has strong psychometric properties and is appropriate for adolescents from a broad array of religious faiths. Finally, our measure predicted an important outcome—risk behavior—even after controlling for other variables.

References

- Adlaf, E. M., & Smart, R. G. (1985). Drug use and religious affiliation, feelings, and behaviour. *British Journal of Addiction, 80*, 163–171. doi:10.1111/j.1360-0443.1985.tb03267.x
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York, NY: Holt.
- Amey, C. H., Albrecht, S. L., & Miller, M. K. (1996). Racial differences in adolescent drug use: The impact of religion. *Substance Use and Misuse, 31*, 1311–1332. doi:10.3109/10826089609063979
- Bahr, S. J., Maughan, S. L., Marcos, A. C., & Li, B. (1998). Family, religiosity, and the risk of adolescent drug use. *Journal of Marriage and Family, 60*, 979–992. doi:10.2307/353639

- Bentler, P. M. (2004). *EQS 6: Structural equation program manual*. Encino, CA: Multivariate Software.
- Britt, T., & Shepperd, J. A. (1999). Trait relevance and trait assessment. *Personality and Social Psychology Review*, 3, 108–122. doi:10.1207/s15327957pspr0302_2
- Brown, T. L., Parks, G. S., Zimmerman, R. S., & Phillips, C. M. (2001). The role of religion in predicting adolescent alcohol use and problem drinking. *Journal of Studies on Alcohol*, 62, 696–705.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows*. Thousand Oaks, CA: Sage.
- Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. *Structural Equation Modeling*, 11, 272–300. doi:10.1207/s15328007sem1102_8
- Cochran, J. K., & Akers, R. L. (1989). Beyond hellfire: An exploration of the variable effects of religiosity on adolescent marijuana and alcohol use. *Journal of Research in Crime and Delinquency*, 26, 198–225. doi:11.1177/0022427889026003002
- Cornwall, M., Albrecht, S. L., Cunningham, P. H., & Pitcher, B. L. (1986). The dimensions of religiosity: A conceptual model with an empirical test. *Review of Religious Research*, 27, 226–244. doi:10.2307/3511418
- Dimitrov, D. M. (2010). Testing for factorial invariance in the context of construct validation. *Measurement and Evaluation in Counseling and Development*, 43, 121–149. doi:10.1177/0748175610373459
- Dunn, M. S. (2005). The relationship between religiosity, employment, and political beliefs on substance use among high school seniors. *Journal of Alcohol and Drug Education*, 49, 73–88.
- Ellison, C. G., & Sherkat, D. E. (1999). Identifying the “semi-involuntary institution”: A clarification. *Social Forces*, 78, 793–802. doi:10.1093/sf/78.2.793
- Erikson, E. (1980). *Identity and the life cycle*. New York, NY: Norton.
- Fetzer Institute/National Institute on Aging Working Group. (1999). *Multidimensional measurement of religiousness/spirituality for use in health research: A report of the Fetzer Institute/National Institute on Aging Working Group*. Kalamazoo, MI: John E. Fetzer Institute.
- Fowler, J. W. (1991). Stages in faith consciousness. *New Directions for Child and Adolescent Development*, 1991, 27–45. doi:10.1002/cd.23219915204
- Gorsuch, R. L. (1984). Measurement: The boon and bane of investigating religion. *American Psychologist*, 39, 228–236. doi:10.1037/0003-066X.39.3.228
- Gorsuch, R. L., & Venable, G. (1983). Development of “Age Universal” I-E Scale. *Journal for the Scientific Study of Religion*, 22, 181–187. doi:10.2307/1385677
- Hair, E. C., Moore, K. A., Kuhfeld, M., & Sidorowicz, K. (2009). *Parent and family religiosity during adolescence: The influence on risky behavior during the transition to adulthood*. Washington, DC: Child Trends.
- Hardy, S. A. (2003). Adolescent religiosity and sexuality: An investigation of reciprocal influences. *Journal of Adolescence*, 26, 731–739. doi:10.1016/j.adolescence.2003.03.003
- Harris, S. K., Sherritt, L. R., Holder, D. W., Kulig, J., Shrier, L. A., & Knight, J. R. (2008). Reliability and validity of the Brief Multidimensional Measure of Religiousness/Spirituality among adolescents. *Journal of Religion and Health*, 47, 438–457. doi:10.1007/s10943-007-9154-x
- Heath, A. C., Madden, P. F., Grant, J. D., McLaughlin, T. L., Todorov, A. A., & Bucholz, K. K. (1999). Resiliency factors protecting against teenage alcohol use and smoking: Influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. *Twin Research*, 2, 145–155. doi:10.1375/twin.2.2.145
- Hill, P. C., & Hood, R. W., Jr. (Eds.). (1999). *Measures of religiosity*. Birmingham, AL: Religious Education Press.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424–453. doi:10.1037/1082-989X.3.4.424
- Jaccard, J., & Dittus, P. (1990). Idiographic and nomothetic perspectives on research methods and data analysis. In C. Hendrick & M. S. Clark (Eds.), *Review of personality and social psychology: Vol. 11. Research methods in personality and social psychology* (pp. 312–351). Newbury Park, CA: Sage.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.
- Mason, W. A., & Windle, M. (2001). Family, religious, school and peer influences on adolescent alcohol use: A longitudinal study. *Journal of Studies on Alcohol*, 62, 44–53.
- Mason, W. A., & Windle, M. (2002). A longitudinal study of the effects of religiosity on adolescent alcohol use and alcohol-related problems. *Journal of Adolescent Research*, 17, 346–363. doi:10.1177/458402017004002
- McIver, J. P., & Carmines, E. G. (1981). *Unidimensional scaling*. Thousand Oaks, CA: Sage.
- Meade, A. W., & Kroustalis, C. M. (2006). Problems with item parceling for confirmatory factor analysis tests of measurement invariance. *Organizational Research Methods*, 9, 369–403.
- Miller, L., Davies, M., & Greenwald, S. (2000). Religiosity and substance use and abuse among adolescents in the National Comorbidity Survey. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39, 1190–1197. doi:10.1097/00004583-200009000-00020
- Millsap, R. E. (1997). Invariance in measurement and prediction: Their relationship in the single-factor case. *Psychological Methods*, 2, 248–260. doi:10.1037//1082-989X.2.3.248
- Newport, F. (2012). *State of the states: Mississippi is the most religious U.S. state*. Retrieved from <http://www.gallup.com/poll/153479/Mississippi-Religious-State.aspx#1>
- Nonnemaker, J. M., McNeely, C. A., & Blum, R. W. (2003). Public and private domains of religiosity and adolescent health risk behaviors: Evidence from the National Longitudinal Study of Adolescent Health. *Social Science & Medicine*, 57, 2049–2054. doi:10.1016/S0277-9536(03)00096-0
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology*, 56, 519–543. doi:10.1002/(SICI)1097-4679(200004)56:4<519::AID-JCLP6>3.0.CO;2-1
- Pelham, B. (1993). The idiographic nature of human personality: Examples of the idiographic self-concept. *Journal of Personality and Social Psychology*, 64, 665–677. doi:10.1037//0022-3514.64.4.665
- Pew Research Center. (2009). *How religious is your state?* Retrieved from <http://www.pewforum.org/How-Religious-Is-Your-State-.aspx>
- Rew, L., & Wong, Y. J. (2006). A systematic review of associations among religiosity/spirituality and adolescent health attitudes and behaviors. *Journal of Adolescent Health*, 38, 433–442. doi:10.1016/j.jadohealth.2005.02.004
- Smith, C., Denton, M. L., Faris, R., & Regnerus, M. (2002). Mapping American adolescent religious participation. *Journal for the Scientific Study of Religion*, 41, 597–612. doi:10.1111/1468-5906.00148
- Steinman, K. J., & Zimmerman, M. A. (2004). Religious activity and risk behavior among African American adolescents: Concurrent and developmental effects. *American Journal of Community Psychology*, 33, 151–161. doi:10.1023/B:AJCP.0000027002.93526.bb
- Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe–Crowne Social Desirability Scale. *Journal of Clinical Psy-*

- chology*, 28, 191–193. doi:10.1002/1097-4679(197204)28:2<191::AID-JCLP2270280220>3.0.CO;2-G
- Wallace, J. M., Brown, T. N., Bachman, J. G., & LaVeist, T. A. (2003). *Religion, race, and abstinence from drug use among American adolescents* (Monitoring the Future Occasional Paper 58). Ann Arbor, MI: University of Michigan, Institute for Social Research.
- Wallace, J. M., Jr., & Forman, T. A. (1998). Religion's role in promoting health and reducing risk among American youth. *Health Education and Behavior*, 25, 721–741. doi:10.1177/109019819802500604
- Worthington, E. L., Jr., Wade, N. G., Hight, T. L., McCullough, M. E., Berry, J. W., Ripley, J. S., . . . O'Connor, L. (2003). The Religious Commitment Inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology*, 50, 84–96. doi:10.1037/0022-0167.50.1.84

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