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Religiosity, Identity, and Depression in Late Adolescence: A Longitudinal Study
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Abstract

In this study, longitudinal associations among religiosity, identity style, identity commitment, and depression were examined in a sample of late adolescents. Online survey data were collected in two waves with an approximate six-week interval. Correlations demonstrated that high levels of negative aspects of religiosity, such as negative religious coping, predicted high levels of depression. Other aspects of religiosity, such as positive religious coping, did not predict depression. In addition, high levels of diffuse-avoidant identity style predicted high levels of depression, and high levels of identity commitment predicted low levels of depression. However, when a regression was performed with all the predictors of wave 2 depression and controlling for depression at wave 1, the predictors were no longer significant. Associations between identity and religiosity were also examined.

Religiosity, Identity, and Depression in Late Adolescence: A Longitudinal Study

The study of religiosity in psychology originates with one of the founders of psychology, William James, who in 1902 wrote *The Varieties of Religious Experience*. In this work, he theorized that religion, or rather a lack thereof, was the root of psychopathology (Dein, 2010).

Since then, religiosity has been examined from many different perspectives, yielding a number of definitions of the concept and associated measurement scales. For example, Wulff (1991) considers Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic interpretations as the two major dimensions of religiosity, the former being spiritual and the latter cognitive. Based on Allport's (1950) early work, some current researchers consider religiosity in terms of its extrinsic and intrinsic motivational features. Few scales measure religiosity comprehensively and many are limited in applicability to certain religious affiliations (Gorusch & Venable, 1983; Fetzer & NIA, 1999).

Since James originally called for religion to be examined in relation to psychopathology, this wish has been fulfilled using many different scales, some of which have been mentioned (Dein, 2010). For example, well-being has been found to be related positively to religiosity in adults, although some findings have been mixed (Stark, 1970; Gartner, Larson, & Allen, 1991; Bergin, Masters, & Richards, 1987). More recently a longitudinal study added to previous studies with the finding that higher levels of religiosity predicted significantly lower risk of recurring depression ten years later for adults who had previously experienced depression, with the higher-religiosity adults having approximately one-quarter of the risk for recurring depression of those with lower religiosity levels (Miller et al. 2012). A negative relation between depressive symptoms and religiosity has also been found in adolescents, although it is not clear

what the direction of the relation is and there is not yet any longitudinal work that would help to answer that question (Wright, Frost, & Wisecarver, 1993; Pearce, Little, & Perez, 2003; Abdel-Khalek, 2009; Jansen, Motley, & Hovey, 2010).

Religiosity has also been examined with mixed findings in the context of identity style and commitment. Duriez, Smits, and Goossens (2008) found that identity exploration has a directional effect on religious beliefs and that identity style directly affects the way adolescents process religious information but not levels of religious beliefs per se, with the exception that normative identity style is associated with higher levels of religiousness.

In addition, associations between depression and identity have been found. Luyckx et al. (2007) found that identity commitment was negatively related to depressive symptoms, and also that identity style was not consistently related to depressive symptomatology, with the exception of an association of normative identity style and depression.

Little work has been done to address possible associations of identity with depression and of identity with religiosity. Thus, it is pertinent to further examine these associations, in addition to confirming the negative association between religiosity and depression and finding whether religiosity's predictive nature on depression in adulthood found by Miller et al. (2012) is also present in adolescence.

Previous work looking at relations between religiosity and depressive symptoms in adolescents has not looked for a direction of relation (Wright, Frost, & Wisecarver, 1993; Pearce, Little, & Perez, 2003; Abdel-Khalek, 2009). In addition, studies have looked at relations between religiosity and depressive symptoms (Wright, Frost, & Wisecarver, 1993; Pearce, Little, & Perez, 2003; Abdel-Khalek, 2009), identity and depressive symptomatology (Luyckx et al., 2007), and identity and religiosity (Duriez & Soenens, 2006; Duriez, Smits, & Goossens, 2008), but have

not looked at all three of these variables using one sample. The present study is designed to build on previous studies by examining longitudinal associations of religiosity and depressive symptoms, of identity style and commitment with depressive symptoms, and of identity style and commitment with religiosity in adolescents. More specifically, these hypotheses are expected:

1. Higher levels of religiosity are expected to predict lower levels of depressive symptoms.

2. Higher levels of identity commitment are expected to predict lower levels of depression.

3. Higher levels of normative identity style are expected to predict higher levels of religiosity.

In addition, exploratory analyses are conducted in the present study in order to explore whether previously unknown associations between these variables exist.

Method

Participants

One hundred and forty-nine participants (135 females and 13 males) from a subject pool of students participating in studies for course credit at a northeastern university volunteered in the first wave of the study. 130 of those participants (118 females, 11 males, and 1 transgender) also participated in the second wave of the study. Only those participants who were in both waves of the study were included in data analyses. The sample was composed mostly of late adolescents (22.1% eighteen years old, 18.1% nineteen years old, 10.7% twenty years old, .7% twenty-one years old, .7% twenty-three years old, and 47.7% missing data). The ethnicity of the sample was primarily Caucasian (78.5% Caucasian, 4% Asian-American, 1.3% other, .7% African-American, .7% Hispanic, .7% Middle-Eastern, and 14.1% missing) and the religious affiliation of the sample was primarily Catholic (36.9% Catholic, 18.1% Atheist, 13.4%

Protestant/Christian, 4% Agnostic, 3.4% Jewish, 2% Unitarian/Spiritual/Other, 1.3% Buddhist, .

7% Native American Pagan, .7% Eastern Orthodox/Greek Orthodox, .7% Muslim, and 18.8%

missing).

Procedure

Data were collected via the internet survey in two waves approximately six weeks apart,

once in October and once in December. Participants were recruited through the university's

online recruiting system. They were emailed a link to the internet survey and an assigned, unique

code to submit on the first page of the survey. The codes and names were kept in a database by

the researcher assigning course credit separate from the researcher performing the data analyses.

The researcher assigning course credit had no access to the survey data. After all course credit

was distributed, the database was destroyed in order to protect participant confidentiality.

Participants were asked to respond "yes" or "no" to an informed consent page. Those

who responded "yes" went on to answer the survey questions, and those who responded "no"

were offered an alternative research experience assignment in exchange for their course credit.

All participants responded "yes."

At each wave, participants completed the above procedure. At the end of the second

wave, participants received a debriefing that explained the purpose and aims of the study in

addition to the researcher's contact information.

Measures

Demographic Information. Demographic questions on the survey included participant

age, gender, year in school (i.e. freshman), ethnicity, and the level of education reached by each

of the parents of the participant.

Identity Style Inventory 4 (ISI-4). The ISI-4 (Berzonsky et al., 2011) is a 40-item scale developed to measure identity style and identity commitment. The scale measures levels of informational identity style (IIS), normative identity style (NIS), diffuse-avoidant identity style (D-AIS), and identity commitment (IC). Responses to items range from scores of 1 (not at all like me) to 5 (very much like me). A few items on this scale are reverse coded to eliminate participant bias. In this study, the mean of the items for each subscale (i.e. normative identity) was used for each participant's subscale scores (e.g. scores ranged from 1 to 5). Cronbach's α reliability was moderately high, exceeding .75 for all subscales at both data collections, excepting normative identity style during the first collection with α=.69.

Center for Epidemiological Studies Depression Scale (CESD). The CESD (Radloff, 1977) is a widely-used 20-item scale measuring depression symptoms. Participants are asked to respond to statements, such as "I did not feel like eating; my appetite was poor" with how many times during the past week they have felt that way. Responses range from scores of 1 (rarely or none of the time, less than 1 day) to scores of 4 (all of the time, 5-7 days). A few items on the scale are reverse coded to eliminate participant bias. The mean of the items was used as each participant's score in this study (e.g. scores ranged from 1 to 4). Reliability was high at both data collections, with Cronbach's α=.90 in the first wave and α=.92 in the second wave.

Age Universal *I-E* Scale. This measure of religiosity (Gorsuch & Venable, 1983) is a 20-item scale measuring religiosity in two subscales, extrinsic religiosity and intrinsic religiosity, based on Allport's concept of orientation to religiosity (1950). Extrinsic religiosity (ER) measures religious behavior motivated by external factors, such as social gains, whereas intrinsic religiosity (IR) measures behavior generated by autonomous, internal motivation (Allport & Ross, 1967). Participants are asked to respond to statements such as "I try hard to live all my life

according to my religious beliefs." Responses range from 1 (I strongly disagree) to 5 (I strongly agree). In this study, the mean of the items for each subscale was used for each participant's subscale scores (e.g. scores ranged from 1 to 5). Cronbach's α reliability was high for both subscales at both data collections, all exceeding α=.79.

Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS). The BMMRS (Fetzer & NIA, 1999) is a 54-item scale, intended for use in studies of mental and physical health, that comprehensively measures fourteen different aspects of religiosity and spirituality. This study used several of the BMMRS subscales: daily spiritual experience, forgiveness, positive religious coping, negative religious coping, and congregation problems.

Daily spiritual experience (DSE) is a six-item scale measuring the individual's perception of the transcendent presence (i.e. the divine) in the individual's daily experiences (Fetzer & NIA, 1999). Responses to statements such as "I am spiritually touched by the beauty of creation" range from 1 (many times a day) to 6 (never or almost never). In this study, the mean of the items was used as each participant's score for daily spiritual experiences (e.g. scores ranged from 1 to 6). Cronbach's α was very high at both data collections (first wave α=.93; second wave α=.95).

Forgiveness (Forg.) is a three-item scale measuring feelings of forgiveness towards oneself, towards others, and from the divine (Fetzer & NIA, 1999). Responses to statements such as "I have forgiven myself for things that I have done wrong" range from 1 (always or almost always) to 4 (never). The mean of the items was used as each participant's score for forgiveness (e.g. scores ranged from 1 to 4). Cronbach's α was high for each data collection (first wave α=.83; second wave α=.85).

Positive religious coping (PRC) measures an individual's benevolent religious method of understanding and coping with life stressors. Negative religious coping (NRC) measures an

individual's religious struggle in coping with life stressors (Fetzer & NIA, 1999). Responses to statements such as "I look to God for strength, support, and guidance" range from 1 (a great deal) to 4 (not at all). The mean of the items on each of the two subscales was used as each participant's score for positive and negative religious coping (e.g. scores ranged from 1 to 4). Cronbach's α for positive religious coping was high for each data collection, exceeding .87. Cronbach's α for negative religious coping was moderate, with α=.68 at the first data collection and α=.74 at the second data collection.

Congregational problems (CP) measures how often the members of an individual's religious community create problems for the individual (Fetzer & NIA, 1999). The two-item scale has responses ranging from 1 (very often) to 4 (never). The mean of the two items was used as each participant's score for this measure (e.g. scores ranged from 1 to 4). Cronbach's α was moderate (α=.67) at the first data collection but was high in the second data collection (α=.84).

Results

Preliminary data analyses were conducted before correlations and regression analyses were performed. Frequency distributions for each item revealed that items measuring identity style and commitment were relatively normal. Items measuring depression were positively skewed as expected (Radloff, 1977). Items on the religiosity scales were also skewed, with participants' scores trending towards lower levels of religiosity.

Participants' scores for each subscale used in subsequent analyses were the mean of their responses to the items on each subscale. See Table 1 for the sample means and standard deviations of individual measures.

As all scales were administered in both waves, temporal stability of all subscale scores could be calculated. These are in Table 2. Repeated measures *t*-tests comparing time 1 scores to time 2 scores of each variable were performed to test score stability over time. With the exception of diffuse-avoidant identity style ($t(127)=-2.03$, $p=.045$), scores did not change significantly over the six week period. For individual *t*-test results, see Table 3.

Correlations of all wave 1 variables with each other are provided in Table 4. Correlations of wave 1 and wave 2 data are provided in Table 5.

To test the hypothesis that religiosity and identity predicted depression, first correlations were performed, revealing that, individually, wave 1 diffuse-avoidant identity style, identity commitment, negative religious coping, and congregational problems significantly predicted wave 2 depression, $r(125)= +.23$, $p=.008$; $r(125)= -.18$, $p=.039$; $r(125)= -.25$, $p=.004$; $r(123)= -.28$, $p=.002$. Other wave 1 identity and religiosity measures did not predict wave 2 depression.

A regression analysis of diffuse-avoidant identity style, identity commitment, negative religious coping, and congregational problems, controlling for wave 1 depression, significantly predicted wave 2 depression (adjusted $R^2=.23$; $F(5, 119)=9.05$, $p<.001$). However, with the depression control, none of the predictors significantly contributed to wave 2 depression.

Wave 2 extrinsic religiosity was significantly predicted by wave 1 normative identity style, $r(126)= +.30$, $p<.001$. A regression analysis predicting wave 2 extrinsic religiosity from wave 1 normative identity style, while controlling for wave 1 extrinsic religiosity, was significant (adjusted $R^2=.48$; $F(2,125)=59.30$, $p<.001$). Both the control and normative identity style were significant predictors ($t(125)=9.58$, $p<.001$; $t(125)=2.03$, $p=.045$). The squared semipartial that estimated how much variance in wave 2 extrinsic religiosity was uniquely predictable from wave

1 normative identity style was sr^2=.017. Thus, when controlling for wave 1 extrinsic religiosity, normative identity style uniquely predicted about 1.7% of the variance in extrinsic religiosity.

Wave 2 intrinsic religiosity was significantly predicted by wave 1 informational identity style, $r(125)$= +.30, p=.001; normative identity style, $r(125)$= +.42, p<.001; and identity commitment, $r(125)$= +.28, p=.001. A regression analysis predicting wave 2 intrinsic religiosity from wave 1 informational identity style, normative identity style, and identity commitment, while controlling for wave 1 intrinsic religiosity, was significant (adjusted R^2=.70; $F(4,122)$=75.89, p<.001). However, with the intrinsic religiosity control, none of the predictors significantly contributed to wave 2 intrinsic religiosity.

Wave 2 daily spiritual experience was significantly predicted by wave 1 informational identity style, $r(125)$= +.28, p=.002; normative identity style, $r(125)$= +.31, p<.001; and identity commitment, $r(125)$= +.29, p=.001. A regression analysis predicting wave 2 daily spiritual experience from wave 1 informational identity style, normative identity style, and identity commitment, while controlling for wave 1 daily spiritual experience, was significant (adjusted R^2=.55; $F(4,122)$=38.71, p<.001). However, with the daily spiritual experience control, none of the predictors significantly contributed to wave 2 daily spiritual experience.

Wave 2 forgiveness was significantly predicted by wave 1 informational identity style, $r(125)$= +.23, p=.010; and normative identity style, $r(125)$= +.23, p<.010. A regression analysis predicting wave 2 forgiveness from wave 1 informational identity style and normative identity style, while controlling for wave 1 forgiveness, was significant (adjusted R^2=.38; $F(3,122)$=26.99, p<.001). With the wave 1 forgiveness control, informational identity style was a significant predictor of wave 2 forgiveness, $t(122)$=2.06, p=.041, but normative identity style was not a significant predictor. The squared semipartial that estimated how much variance in

wave 2 forgiveness was uniquely predictable from wave 1 informational identity style was sr^2=.021. Thus, informational identity style predicted approximately 2.1% of the variance in forgiveness.

Wave 2 positive religious coping was significantly predicted by wave 1 informational identity style, $r(125)$= +.23, p=.011; normative identity style, $r(125)$= +.41, p<.001; and identity commitment, $r(125)$= +.23, p=.009. A regression analysis predicting wave 2 positive religious coping from wave 1 informational identity style, normative identity style, and identity commitment, while controlling for wave 1 positive religious coping, was significant (adjusted R^2=.66; $F(4,122)$=61.30, p<.001). With the wave 1 positive religious coping control, normative identity style was a significant predictor of wave 2 positive religious coping, $t(122)$=3.01, p=.003, but informational identity style and identity commitment were not significant predictors. The squared semipartial that estimated how much variance in wave 2 positive religious coping was uniquely predictable from wave 1 normative identity style was sr^2=.025. Thus, normative identity style predicted approximately 2.5% of the variance in positive religious coping.

Wave 2 negative religious coping and wave 2 congregation problems were not predicted by any wave 1 identity measures.

Discussion

The results of this study are inconsistent with hypotheses and past research in that, while controlling for depression in final analyses, religiosity and identity were not associated with depression (Wright, Frost, & Wisecarver, 1993; Pearce, Little, & Perez, 2003; Abdel-Khalek, 2009; Jansen, Motley, & Hovey, 2010; Luyckx et al. 2007). The preliminary correlational analyses also differed with those of other studies because there was no significant association

found between non-negative aspects of religiosity, such as daily spiritual experience or positive religious coping, and depression (Wright, Frost, & Wisecarver, 1993; Pearce, Little, & Perez, 2003; Abdel-Khalek, 2009). These results may indicate that religiosity does not have the protective effect against depression in adolescence that has been proposed by past studies (Jansen, Motley, & Hovey, 2010). However, the preliminary correlational analyses did replicate the positive association between congregation problems and depression found by Pearce, Little, & Perez (2003), although this association was not significant in the final regression analysis predicting depression. This suggests the possibility of a detrimental effect of negative aspects of religiosity on depression which requires further investigation and clarification.

Preliminary correlational analyses were consistent with the hypothesis that higher levels of normative identity style would predict higher levels of extrinsic religiosity. When a final regression analysis was performed predicting wave 2 extrinsic religiosity from normative identity while controlling for wave 1 extrinsic religiosity, normative identity style was a significant predictor accounting for approximately 1.7% of the variance of extrinsic religiosity. These findings indicate that individuals who have higher levels of normative identity style will also have higher levels of extrinsic religiosity, which expands on the finding that normative identity style is associated with higher levels of general religiousness (Duriez, Smits, & Goossens, 2008).

Preliminary correlational analyses were consistent with the hypothesis that higher levels of informational identity style would predict higher levels of intrinsic religiosity. In addition, correlational analyses showed that higher levels of normative identity style and higher levels of identity commitment each individually predicted higher levels of intrinsic religiosity. However, when a regression was performed predicting wave 2 intrinsic religiosity from wave 1

informational identity style, normative identity style, and identity commitment while controlling for wave 1 intrinsic religiosity, none of the predictors were significant. This indicates that an individuals' levels of intrinsic religiosity at wave 1 were responsible for levels of intrinsic religiosity at wave 2 and that identity measures were not responsible.

Preliminary correlational analyses revealed predictive relationships of religiosity with other religiosity measures. Final regression analyses revealed that while controlling for wave 1 forgiveness, informational identity style predicted 2.1% of the variance of wave 2 forgiveness and that while controlling for wave 1 positive religious coping, normative identity style predicted 2.5 % of the variance in wave 2 positive religious coping. These results indicate small but significant effects of identity on religiosity.

Many of the above findings are consistent with the Duriez, Smits, and Goosens finding of an association between normative identity style and religiousness (2008). These findings build on the association by showing the types of religiosity that normative identity style predicts, including extrinsic religiosity and positive religious coping. Additionally, this study shows that informational identity style predicts forgiveness and may also be an important predictor of religiosity. These findings show that future research on religiosity and identity in adolescence, which is currently lacking, should retest these findings and look for associations that have not yet been examined.

Limitations

Inconsistencies in the results could be due to the following limitations. Foremost, the exploratory nature of this study does not warrant strong conclusions, but can only demonstrate directions for further research. Also, the little change over time for each measure demonstrated an insufficient time lag between waves of data collection. The sample used came from a

population of late adolescents from a university psychology subject pool, which is difficult to generalize to other populations due to the specificity of this population. Finally, the positively skewed religiosity measures, which may be attributable to the specific population, may have contributed to the lack of significant results.

Specifically the final analysis predicting wave 2 depression may have limitations. This analysis differed from past analyses by looking at longitudinal, predictive relationships with identity and religiosity predicting depression at the same time. The use of this type of analysis could be responsible for the results that were inconsistent with past research.

Finally, the religiosity measures limited the findings. The *Age Universal* I-E *Scale* may not have been accurate in measuring all participants' religiosity because of its Christian orientation (Gorsuch & Venable, 1983). In addition, the *Brief Multidimensional Measure of Religiousness/Spirituality* is more inclusive than the *Age Universal* I-E *Scale*, but some questions are still Judeo-Christian in orientation, compromising the accuracy of non-Judeo-Christian participants' responses. This scale is also cumbersome to work with. Many of the subscales have only one or two items, compromising their validity, and the scale does not include an entirely valid overall measure of religiousness.

Implications

Future research should attempt to retest the longitudinal findings in this study with a sufficient time lag and more representative late adolescent population before stronger conclusions can be drawn. In adult samples, a few longitudinal studies have found that higher levels of religiosity predicted lower levels of depression (Miller et al. 2012). Perhaps future studies could confirm this for adolescence as well, or future studies may confirm the results of the current study. In addition, in previous studies and in this study, depression, identity, and

religiosity have been associated in pairs, but not yet successfully in one model. Further research should attempt to disentangle these associations and discover the interworking of these three variables.

Furthermore, a simpler, more inclusive religiosity scale is needed in order to provide a better measure for religiosity. A simpler scale would make it easier to measure religiosity overall, and inclusivity would increase the accuracy of measuring diverse religious samples. It is important that this research be conducted in order to better inform the treatment of depression and the outreach of religious communities to those affected by depression.

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Appendix

Table 1: Descriptive Statistics for Identity, Depression, and
Religiosity

		Mean	Std. Deviation
Pair 1	Informational Identity Style Time 1	3.7655	.52000
	Informational Identity Time 2	3.7553	.54920
Pair 2	Normative Identity Style Time 1	2.7329	.47173
	Normative Identity Style Time 2	2.7950	.54548
Pair 3	Diffuse-Avoidant Identity Style Time 1	2.4749	.56723
	Diffuse-Avoidant Identity Style Time 2	2.5696	.64582
Pair 4	Identity Commitment Time 1	3.6803	.73638
	Identity Commitment Time 2	3.6795	.66987
Pair 5	CESD Depression Time 1	1.8545	.44703
	CESD Depression Time 2	1.8482	.50879
Pair 6	Extrinsic Religiosity Time 1	2.5309	.59871
	Extrinsic Religiosity Time 2	2.4902	.74093
Pair 7	Intrinsic Religiosity Time 1	2.3512	.90940
	Intrinsic Religiosity Time 2	2.3534	.94590
Pair 8	Daily Spiritual Experience Time 1	4.4079	1.29440
	Daily Spiritual Experiences Time 2	4.4476	1.42580
Pair 9	Forgiveness Time 1	2.2288	.87222
	Forgiveness Time 2	2.1902	.95441

Table 1: Descriptive Statistics for Identity, Depression, and Religiosity

		Mean	Std. Deviation
Pair 10	Positive Religious Coping Time 1	3.1043	.83953
	Positive Religious Coping Time 2	3.1260	.84391
Pair 11	Negative Religious Coping Time 1	3.7244	.50280
	Negative Religious Coping Time 2	3.6929	.54934
Pair 12	Congregation Problems Time 1	3.6720	.56477
	Congregation Problems Time 2	3.6160	.62261

Table 2: Correlations of Time 1 and Time 2 for Identity, Depression, and Religiosity

		N	Correlation	Sig.
Pair 1	Informational Identity Style Time 1 & Time 2	128	.670	.000
Pair 2	Normative Identity Style Time 1 & Time 2	129	.562	.000
Pair 3	Diffuse-Avoidant Identity Style Time 1 & Time 2	128	.627	.000
Pair 4	Identity Commitment Time 1 & Time 2	128	.784	.000
Pair 5	CESD Depression Time 1 & Time 2	127	.487	.000
Pair 6	Extrinsic Religiosity Time 1 & Time 2	128	.686	.000
Pair 7	Intrinsic Religiosity Time 1 & Time 2	127	.839	.000
Pair 8	Daily Spiritual Experience Time 1 & Time 2	127	.733	.000
Pair 9	Forgiveness Time 1 & Time 2	126	.608	.000
Pair 10	Positive Religious Coping Time 1 & Time 2	127	.800	.000
Pair 11	Negative Religious Coping Time 1 & Time 2	127	.489	.000
Pair 12	Congregation Problems Time 1 & Time 2	125	.562	.000

Table 3: *t*-Tests for Identity, Depression, and Religiosity at Times 1 & 2

		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 1	Informational Identity Style Time 1 - Informational Identity Time 2	.01014	.43537	.03848
Pair 2	Normative Identity Style Time 1 - Normative Identity Style Time 2	-.06212	.48066	.04232
Pair 3	Diffuse-Avoidant Identity Style Time 1 - Diffuse-Avoidant Identity Style Time 2	-.09470	.52857	.04672
Pair 4	Identity Commitment Time 1 - Identity Commitment Time 2	.00089	.46637	.04122
Pair 5	CESD Depression Time 1 - CESD Depression Time 2	.00629	.48682	.04320
Pair 6	Extrinsic Religiosity Time 1 - Extrinsic Religiosity Time 2	.04068	.54699	.04835
Pair 7	Intrinsic Religiosity TIme 1 - Intrinsic Religiosity Time 2	-.00215	.52693	.04676
Pair 8	Daily Spiritual Experience Time 1 - Daily Spiritual Experience Time 2	-.03969	1.00095	.08882
Pair 9	Forgiveness Time 1 - Forgiveness Time 2	.03860	.81202	.07234
Pair 10	Positive Religious Coping Time 1 - Positive Religious Coping Time 2	-.02165	.53175	.04719
Pair 11	Negative Religious Coping	.03150	.53359	.04735

Table 3: *t*-Tests for Identity, Depression, and Religiosity at Times 1 & 2

		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 12	Time 1 - Negative Religious Coping Time 2 Congregation Problems Time 1 - Congregational Problems Time 2	.05600	.55799	.04991

Table 4: Wave 1 Correlations

	IIS	NIS	D-AIS	IC	Depression	ER	IR	DSE	Forg.s	PRC	NRC	CP
IIS	1	.09	-.18*	.37**	-.01	.16	.29**	.26**	.14	.26**	-.11	-.10
NIS		1	.20*	.18*	-.08	.38**	.47**	.28**	.22**	.38**	.08	.09
D-AIS			1	-.62**	.14	.14	.03	-.08	-.14	-.03	.15	.22**
IC				1	-.13	.05	.27**	.33**	.24**	.30**	-.14	-.13
Depression					1	.07	.10	-.05	-.13	.06	.37**	.23**
ER						1	.67**	.37**	.26**	.48**	.35**	.30**
IR							1	.73**	.43**	.80**	.24**	.23**
DSE								1	.52**	.84**	.14	.21**
Forgiveness									1	.49**	.03	.04
PRC										1	.29**	.24**
NRC											1	.44**
CP												1

* Correlation is significant at the .05 level (two-tailed)
** Correlation is significant at the .01 level (two-tailed)

Table 5: Correlations of Wave 1 with Wave 2												
	IIS 2	NIS 2	D-AIS 2	IC 2	Depress 2	ER 2	IR 2	DSE 2	Forgive. 2	PRC 2	NRC 2	CP 2	Mean
IIS 1	.67**	-.01	-.16	.27**	-.01	.10	.30**	.28**	.23*	.23*	-.06	.03	3.77
NIS 1	.00	.56**	-.02	.17	.00	.33**	.42**	.31**	.23**	.41**	.09	.16	2.73
D-AIS 1	-.22*	.08	.63**	-.52**	.23**	.03	-.12	-.10	-.14	-.03	.15	.14	2.47
IC 1	.32**	.10	-.48**	.78**	-.18*	.06	.28**	.29**	.17	.23**	-.12	.13	3.68
Depress. 1	.02	-.03	.06	-.06	.49**	.03	.05	-.03	-.02	.03	.32**	.20*	1.85
ER 1	.07	.26**	-.05	.06	.03	.69**	.58**	.31**	.30**	.41**	.19*	.20*	2.53
IR 1	.21*	.32**	-.20*	.27	.02	.55**	.84**	.65**	.48**	.76**	.17	.14	2.35
DSE 1	.24**	.18*	-.18*	.33**	-.08	.38**	.65**	.73**	.49**	.77**	.11	.03	4.41
Forgive. 1	.02	.23**	-.08	.21*	-.08	.42**	.51**	.37**	.61**	.41**	.01	-.01	2.23
PRC 1	.23**	.25**	-.20*	.35**	-.05	.39**	.71**	.73**	.54**	.80**	.17	.05	3.10
NRC 1	.12	.05	.03	-.06	.25**	.28**	.23**	.13	.03	.19*	.49**	.30**	3.72
CP 1	.08	.18*	.13	-.06	.28**	.21*	.21*	.16	.07	.20*	.40**	.56**	3.67
Mean	3.76	2.80	2.57	3.68	1.85	2.49	2.35	4.45	2.19	3.13	3.69	3.62	
SD	.55	.55	.65	.67	.51	.74	.95	1.43	.95	.84	.55	.62	

* Correlation is significant at the .05 level (two-tailed)
** Correlation is significant at the .01 level (two-tailed)