EMOTION REGULATION AND RELIGIOSITY: A REPEATED MEASURES APPROACH

by

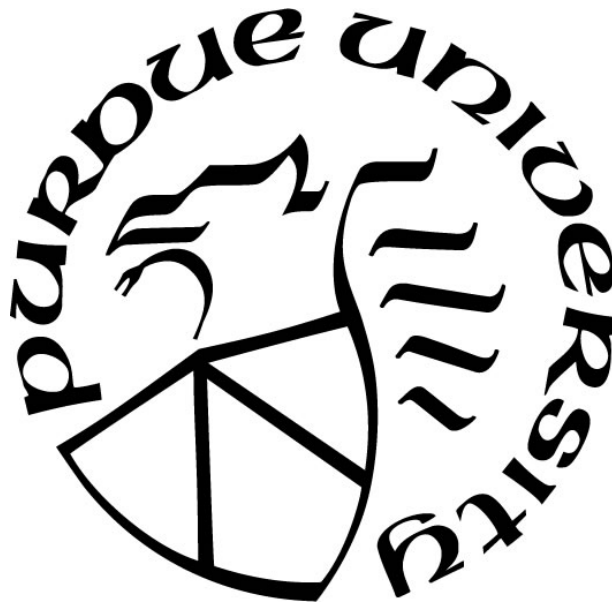**Alison M. Haney**

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ABSTRACT

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Religious faith has been identified as a protective factor against negative psychological outcomes and is associated with a range of positive mental and physical health outcomes. While religion is thought to confer psychological benefits to believers in part by enhancing emotion regulation abilities and providing faith-based regulatory methods such as religious coping, these associations have not been examined empirically. This may be due to a lack of measures that are appropriate for use in repeated measures contexts, which are needed for accurate assessment of dynamic constructs such as emotions and regulation. This study employed generalizability theory in a sample ($N = 146$) collected in daily dairy format over 21 days to determine the reliability of commonly used measures of religiosity and religious coping at the daily level. Once reliability was established, varying time scales were used in a multilevel modeling framework to examine the associations among intrinsic religiosity, religious coping, positive and negative affect, and difficulties in emotion regulation. Positive religious coping (PRC) measured at baseline, same day, and a 1-day lag was associated with higher levels of daily positive affect, though PRC was also associated with negative affect when measured on the same day. Negative religious coping (NRC) measured at baseline predicted lower levels of daily positive affect and was associated with higher levels of negative affect when measured on the same day and a 1-day lag. NRC was also associated with higher levels of difficulties in emotion regulation at all measurement periods, though PRC and intrinsic religiosity were not significantly associated with emotion regulation difficulties. While not associated with daily positive or negative affect, intrinsic religiosity was found to enhance the effect of positive affect inertia. These results did not support the conceptualization that religiosity broadly promotes adaptive emotion regulation, but rather that intrinsic religiosity may increase positive

affect by amplifying the effects of positive affect inertia. Additional work is needed with increased measurement occasions to fully understand the temporal associations among these constructs.

INTRODUCTION

Involvement in religion has been associated with positive psychological states and has been shown to buffer against stress and protect against negative psychological states (Hood, Hill, & Spilka, 2009). These benefits appear among those who maintain regular religious and spiritual practices, regardless of the formal content of spiritual belief structures (Hackney & Sanders, 2003). Several mechanisms have been proposed to explain how religiosity may improve mental and physical health outcomes, including use of positive religious coping (e.g., turning to the divine for help) to manage distress, reduction in existential uncertainty, and participation in religious rituals that may activate self-monitoring and regulation (McCullough & Willoughby, 2009; Monteiro, 2015; Pargament, Magyar-Russell, & Murray-Swank, 2005). Religiosity is also associated with adaptive physiological responses to stress, such as maintaining diurnal cortisol rhythms (Dedert et al., 2004). While religiosity may confer mental health benefits in part by promoting adaptive self-regulation, it remains unclear whether - and to what extent - religiosity and its expected benefits fluctuate with daily emotional experiences.

Religion and Emotions

Emotions play an important role in religious experience (Emmons, 2005). Religious activities can elicit powerful emotions (Watts, 1996), but religiosity also influences emotional goals outside of religious contexts. Religion shapes emotional goals, or desired emotional states (Mauss & Tamir, 2014), by defining which emotions are desirable. In a religious context, emotions are considered desirable if they reaffirm religious values (Vishkin, Bigman, & Tamir, 2014). For example, while many religions discourage the emotion of hatred, hatred of people or systems in contrast with a

theological viewpoint is supported in some religious faiths (Cohen, Malka, Rozin, & Cherfas, 2006). Guilt may be considered a negative emotion broadly, but can be considered desirable in a religious context if that guilt promotes corrective religious action (Geyer & Baumeister, 2005). However, in the absence of corrective action, religious faith may perpetuate negative feelings of guilt for religious adherents.

More typically, religions encourage positive emotion goals (Van Cappellin & Rimé, 2013) so long as positive emotions are not experienced while participating in religiously incongruent activities. Many religions prescribe the emotion of joy in response to religious experience, though others discourage immoderate joy (Vishkin et al., 2014). Common to much of religious faith is the experience of awe (Haidt, 2004), an emotion elicited in reaction to something perceived to be extraordinary or beyond the scope of one's comprehension, which requires adjusting mental constructions to accommodate the experience (Keltner & Haidt, 2003). Individuals prone to experiences of awe, such as that experienced by religious individuals in response to the divine, tend to be more willing to revise their mental representations of the world (Shiota, Keltner, & Mossman, 2007). Another positive emotional experience common to religious faith is gratitude (Emmons & Crumpler, 2000; Schimmel, 2004). Gratitude is positively correlated with religiosity (McCullough, Emmons, & Tsang, 2002) and may foster prosocial actions that lead to increased social and emotional support.

Religiosity, Religious Coping, and Emotion Regulation

In addition to defining desirable emotional goals, religion may influence how adherents achieve those goals, inform beliefs about the malleability of emotions, and promote self-regulation (Vishkin et al., 2014). Through use of religious practices or

coping techniques, believers can intentionally manage negative emotions or maintain

positive ones (Joshanloo, 2019). Religious coping, which has been conceptualized as

something distinct from overall religiosity (Pargament, Feuille, & Burdzy, 2011;

Pargament, Smith, Koenig, & Perez, 1998), is often considered a form of self-regulation,

particularly in the context of emotions. In addition to positive religious coping, which is

typically associated with positive mental and physical health outcomes (Idler et al., 2003;

Lee, Nezu, & Nezu, 2014), religious individuals may also employ negative religious

coping (e.g., feeling abandoned by a higher power, believing an evil force is causing

harm). Negative religious coping is associated with higher levels of depression,

posttraumatic stress, and other negative outcomes, even among individuals who do not

identify as religious (Gerber, Boals, & Schuettler, 2011; Lee, Choi, & Ryu, 2019).

Emotion regulation is a form of self-regulation and involves a person's ability to

change his or her emotional state, typically in a more positively valanced direction

(Gross, 2014). Individuals use different strategies to influence their emotional state, with

degrees of efficacy. Many religions prescribe specific regulatory strategies, such as

religious coping, and these strategies appear to be effective in response to major life

stressors such as loss of a spouse or significant illness (Smith, McCullough, & Poll,

2003). However, emotion regulation can occur in the context of more mild stressors or in

the absence of stress as a method of maintaining positive mood states (Gross, 2014).

Religious belief is also thought to act as a regulatory force by providing a schema

for believers to evaluate emotions and interpret stressful events. Religious individuals

may be particularly adept at employing cognitive reappraisal strategies, which involve

changing the meaning or conceptualization of an emotional event (Gross & John, 2003)

leading to increased positive affect and decreased negative affect (McRae, Ciesielski, & Gross, 2012). Religiosity may facilitate increased cognitive reappraisal ability, as meaning-making and value-consistent appraisal of life events is a core feature of religious life in many faiths (Davies, 2011; Pargament, 1996). Religious faith can address existential concerns (Routledge, Roylance, & Abeyta, 2017), providing robust schemas through which to reappraise negative life events. Religions also frequently sanctify the concept of suffering, which can lead to increased positive affect even in the absence of intentional reappraisal strategies (Hall & Johnson, 2001). However, many religions simultaneously promote context-specific emotional or expressive suppression (e.g., sexual abstinence), which is a relatively less effective emotion regulation strategy (Webb, Miles, & Sheeran, 2012).

While religiosity may increase an individual's ability to employ emotion regulation strategies such as reappraisal or suppression, it is unclear whether specific aspects of religious life (e.g., meditative prayer, external locus of control) operate as forms of intentional emotion regulation for religious adherents. Though religious coping is often conceptualized as a method by which religious people modulate their affect in response to stress (Pargament et al., 2011), extant literature has not empirically examined whether religious coping operates in a similar fashion to other emotion regulation strategies in daily life.

Dynamic Measurement and Emotional Inertia

If religiosity confers emotional benefits due to religious coping operating as a form of daily emotion regulation, it is important to understand these regulatory processes in the context of daily life. Mean level estimates of regulatory or coping habits may not

accurately capture daily fluctuations in coping strategies or frequency of regulatory attempts (Schwarz, 2012). Examining covariation between two constructs, such as religiosity and emotion regulation, is best assessed with real-time data capture. Emotional states are often fleeting, and experience sampling techniques minimize retrospective bias by asking individuals to report on emotional states while introspection is still possible (Schwarz, 2012).

Use of dynamic measurement techniques also allows for capturing affective dynamics such as emotional inertia (Trull, Lane, Koval, & Ebner-Priemer, 2015). Emotional inertia refers to the degree to which emotional states are resistant to change (Bernstein, Curtiss, Wu, Barreira, & McNally, 2019). This is a useful supplement to self-reported difficulty in emotion regulation, as greater temporal dependency of affective states may represent a difficulty in changing affect or a general inflexibility of emotional states (Hollenstein, 2015). While an individual may have difficulty recognizing specific difficulties in his or her emotion regulation abilities, using self-reported affect ratings to calculate emotional inertia provides additional information that may reflect a failure to change affect. Negative affect inertia is associated with negative clinical outcomes, and may predict future mood disorder episodes, such as major depressive disorder (Kuppens et al., 2015).

While religion is hypothesized to promote regulation of such emotional states and therefore promote well-being, extant research has not examined this in a repeated measures framework. The RCOPE (Pargament et al., 2011) has become the most widely used measure of religious coping, and the second most commonly used measure of coping in the psychological literature (Kato, 2013). However, neither the RCOPE or the

most commonly used measure of religiosity, the Duke Religion Index (DUREL; Koenig & Büssing, 2010) have been validated for use in daily diary or ESM studies. If these measures can be reliably used in a repeated measures framework, researchers examining the role of religiosity in mental health will be able to more fully understand the associations among religious coping and moment-to-moment emotional well-being, rather than simply examining mean levels reported by subjects in cross-sectional studies.

Present Study

This study examined religiosity and positive and negative religious coping alongside affect (positive and negative) and emotion regulation difficulties in a daily diary context. First, the RCOPE and the DUREL were assessed for their reliability for use at the daily level to determine if these measures can be meaningfully used alongside daily measures of affect and regulation. Associations among religiosity, religious coping, affect, and regulation were then assessed at distinct time intervals. Measurement times included a baseline estimate to assess overall levels of religiosity and religious coping, and to determine if these constructs predict affect and regulation over time. Associations were also examined with religiosity and religious coping measured on the same day as affect and regulation, and one day before, to determine whether daily reports of subjective religiosity and religious coping were associated with changes in affect and regulation.

Hypotheses

Based on the aforementioned, the following hypotheses were proposed.

Hypothesis 1A

The Duke Religion Index will show adequate reliability at the daily level. Intrinsic religiosity is expected to be relatively stable across time, such that the reliability of the DUREL will not be influenced by the treatment of time as fixed (same day) or random (different days).

Hypothesis 1B

The RCOPE positive religious coping and negative religious coping scales will show adequate reliability at the daily level. However, both subscales are expected to vary across days. Reliability estimates for the RCOPE will be influenced by the treatment of time as fixed compared to random, such that reliability will be lower when time is random.

Hypothesis 2A

Higher levels of positive religious coping will predict higher levels of positive affect and lower levels of negative affect, and negative religious coping will show the opposite pattern. These patterns are expected when measuring religious coping at baseline and at a 1-day lag, though results for positive religious coping and negative affect may be non-significant (or reversed) when measured on the same day. Increased positive religious coping may be in response to same-day negative affective experiences, and this cannot be disentangled at the daily level. Higher levels of intrinsic religiosity will predict higher levels of positive affect, and lower levels of negative affect.

Hypothesis 2B

Higher levels of negative religious coping will predict more difficulties in emotion regulation, and higher levels of positive religious coping will predict fewer

difficulties. Similar to hypothesis 2A, when measured on the same day, positive religious coping may predict higher levels of difficulties in emotion regulation, as religious coping may be leveraged when other regulatory methods are perceived to be ineffective. Higher levels of intrinsic religiosity will be associated with fewer difficulties in emotion regulation across all measurement occasions.

Hypothesis 2C

Higher levels of positive religious coping will be associated with increased inertia in positive affect and decreased inertia in negative affect. Conversely, higher levels of negative religious coping will be associated with decreased inertia in positive affect and increased inertia in negative affect. Intrinsic religiosity will be associated with higher levels of positive affect inertia, and lower levels of negative affect inertia.

METHOD

Participants

Participants ($N = 147$) were recruited at a large public university in the Midwestern United States. Participation was open to any student over the age of 18 in exchange for course credit. Most participants identified as European American (76%), with approximately 14% identifying as East Asian, 7% as Hispanic/Latino, 5% as South Asian, and 4% as African American. More than half of participants were men (65%), and the majority of participants identified their sexual orientation as "straight" (87%). Participants were aged 18-26, with a mean age of 19.5 The most common religious affiliation was Christian (61%; 31% Protestant, 27% Catholic, and 3% "Other"), followed by 23% "unaffiliated", and 12% identified as either Atheist or Agnostic. In total approximately 65% of the sample reported that they belonged to a religious affiliation, and 35% reported that they did not belong to any religious tradition.

Procedure

At baseline, each participant came for a 1-hour orientation session, during which time he or she completed a 45-minute baseline survey and participated in a 15-minute orientation, given information about the study format, and registered for daily surveys. All orientation sessions took place within a 3-week time frame. Starting the day after the participant completed the orientation and baseline survey, the participant completed short daily surveys in the evening for the subsequent 21 days. These daily surveys were administered electronically and could be completed in any location. All participants were instructed to complete the survey at the end of their day before going to bed and received a prompt each day at 8:00 p.m. Eastern time. Surveys could be completed between 8:00

p.m. and 2:00 a.m. Response rates for daily surveys were excellent, with an average response rate of 17.47 surveys (83%).

Instruments

Duke Religion Index

The Duke Religion Index (DUREL; Koenig & Büssing, 2010) is a five-item self-report measure frequently used in epidemiological research, which captures three dimensions of religiosity: organizational (i.e., participation in religious activities; scale from 1 = "never" to 6 = "more than once/week"), non-organizational (i.e., private religious practice; scale from 1 = "never" to 6 = "more than once/week"), and subjective or intrinsic religiosity (i.e., personal religious commitment and motivation; scale from 1 = "definitely not true" to 5 = "definitely true of me"). This scale was developed for use in predicting psychiatric outcomes and was designed to apply across various faith traditions. The DUREL has a Cronbach's alpha of 0.91.

Brief RCOPE

The Brief RCOPE (RCOPE; Pargament et al., 2011) is a 14-item measure of religious coping, which assesses the degree to which an individual utilizes positive religious coping (7 items, such as "I focused on religion to stop worrying about my problems") and negative religious coping (7 items, such as "I wondered what I did for God/the divine to punish me") on a scale from 1 = "not at all" to 4 = "a great deal". This short version of the full 104-item RCOPE contains two of the original measure's 21 subscales. The positive religious coping scale has a reported Cronbach's alpha of 0.92, and the negative religious coping scale has a Cronbach's alpha of 0.81.

Difficulties in Emotion Regulation Scale

The Difficulties in Emotion Regulation Scale – Short Form (DERS-SF; Kaufman et al., 2016) is an 18-item measure of 6 facets of emotion regulation: awareness, clarity, goals, impulse, nonacceptance, and strategies. This is a short version of the original 36-item measure (Gratz & Roemer, 2004). Items (e.g., "I am confused about how I feel") are rated on a scale from 1 = "almost never/0-10%" to 5 = "almost always/91-100%". The DERS-SF has a Cronbach's alpha of 0.94.

Positive and Negative Affect Scales

The International Positive and Negative Affect Scales – Short Form (I-PANAS-SF; Thompson, 2007) is a 10-item measure of positive and negative mood states. This measure was derived from the original 20-item PANAS (Crawford & Henry, 2004), and validated using respondents from a range of cultural backgrounds. Respondents are shown a list of affective states (e.g. "alert", "hostile") and indicate the degree to which they are feeling that particular emotion on a scale from 1 = "not at all" to 5 = "extremely". The positive affect scale has a Cronbach's alpha of 0.86-0.90, and the negative affect scale has a Cronbach's alpha of 0.84-0.87.

Demographics

Demographic information, including age, gender, ethnicity, sexual orientation, psychological service utilization, and religious affiliation, was collected. For both ethnicity and religious affiliation, participants first selected an option from a list, then were prompted to specify further in an open response format (e.g., if a participant identified as Christian - Protestant, they could specify that they were Methodist in the open response question).

ANALYTIC PLAN

Participants that responded on time to fewer than 10 of the 21 prompts were excluded from analyses, resulting in a remaining sample of 146 participants (1 participant excluded). Of a possible 3,066 daily responses (21 days, 146 participants), 367 were missing (i.e., not submitted), and 71 were excluded for being submitted after the 2:00am deadline. This resulted in 2,628 included daily surveys, and 146 included baseline surveys. Variables were assessed for normality, and independent variables were mean centered prior to conducting analyses. Means and standard deviations are reported in Table 2.

Reliability of Daily Measures of Religiosity and Religious Coping

While measures such as the PANAS and DERS have frequently been used in repeated measures research, common measures of religiosity and religious coping have not been validated for use in daily diary contexts. To determine whether daily measures of religiosity and religious coping (DUREL, RCOPE) could be used reliably, generalizability theory was employed. Generalizability theory is a statistical framework for evaluating the reliability of behavioral measures (Shavelson & Webb, 2006). Generalizability theory is an expansion of classical test theory that acknowledges variance in an observed score comes from multiple sources (Cronbach, Gleser, Nanda, & Rajaratnam,1972). While classical test theory considers a single source of variance, generalizability theory allows simultaneous consideration of between-person, within-person, and error variance (Shrout & Lane, 2011).

The first goal when using generalizability theory is to estimate potential sources of variance in observed scores by computing linear combinations of analysis of variance (ANOVA) mean squares (Shavelson & Webb, 2006). These analyses are commonly referred to as a "G study." As this study was conducted in a daily diary format, variance decomposition for each measure was based on a three-way, crossed, analysis of variance model (subject by day[1] by item). As replicate measures of each item at each time were not collected, the three-way interaction is combined with the error term. The variance decomposition model employed is represented in Equation 1 using the DUREL as an example, such that σ^2(DUREL) represents the measure of the ith item for the jth person at the kth timepoint (DUREL$_{ijk}$). Resulting generalizability estimates represent a raw proportion of the total variance accounted for by each included parameter. Results from these analyses will show the relative contribution of subject, item, and day to the variance in scores for each religiosity measure.

(1) Example GT variance decomposition model for the DUREL

$$\sigma^2(DUREL) = \sigma^2(Subject) + \sigma^2(Day) + \sigma^2(Item)$$
$$+ \sigma^2(Subject * Day) + \sigma^2(Subject * Item)$$
$$+ \sigma^2(Day * Item) + \sigma^2(Religion)$$
$$+ \sigma^2(Subject * Day * Item, error)$$

A second analytic technique in generalizability theory is commonly referred to as a "D study" or decision study. Using the framework presented by Cranford and colleagues (2006), a series of reliability estimates will be computed from the variance

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[1]Several methods of modeling time were tested, including survey number (1-21), day of week (Monday-Sunday), and date (mm/dd/yyyy) of survey. As results of generalizability theory analyses did not significantly differ between survey number and date, "day" represents the date a participant took a survey.

components produced from the G study. Four estimates of reliability (*R1f, R1r, Rkf,* and

Rc; see equations 2-5) will be computed for each scale to determine whether the scales

can be reliably used as daily measures (Cranford et al., 2006). The results of these

analyses are interpreted similarly to reliability in classical test theory, such that values

above .7 are acceptable, above .8 are considered good, and above .9 are excellent.

Equation 2-5: D-Study Generalizability Coefficients

Note: m = number of items, k = number of days

(2) R1f: Reliability on a single fixed day

$$R1f = \frac{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m}}{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m} + \frac{\sigma_{Residual}^2}{m}}$$

(3) R1r: Reliability on a single random day

$$R1r = \frac{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m}}{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m} + \sigma_{Day}^2 + \sigma_{Day*Item}^2 + \frac{\sigma_{Residual}^2}{m}}$$

(4) Rkf: Reliability for average over *k* fixed days

$$Rkf = \frac{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m}}{\sigma_{Subject}^2 + \frac{\sigma_{Subject*Item}^2}{m} + \frac{\sigma_{Residual}^2}{m*k}}$$

(5) Rc: Reliability of change over a fixed time period

$$Rc = \frac{\sigma_{Subject*Day}^2}{\sigma_{Subject*Day}^2 + \left(\frac{\sigma_{Residual}^2}{m}\right)}$$

Generalizability Theory With the DUREL and RCOPE

      Generalizability coefficients and reliability estimates were computed for the

DUREL intrinsic religiosity[2] subscale (also called the "subjective religiosity" scale) using

the entire sample, as religiosity is thought to be a dimensional construct applicable to

those from non-religious backgrounds and religious backgrounds, such that non-religious

persons would likely have lower scores on the DUREL than religious persons (Koenig &

Büssing, 2010). The RCOPE has two subscales, and estimates were computed separately

for positive religious coping and negative religious coping. In addition to computing

these estimates for the RCOPE in the sample as a whole, analyses were also conducted

separately on religious and non-religious subjects. This accounts for systematic

differences in responding to religious coping items that can occur between religious and

non-religious individuals. For example, this construct may be more relevant to religious

individuals, or more prone to measurement error in non-religious individuals (Pargament,

Koenig, & Perez, 2000). Generalizability coefficients and reliability estimates were

computed using R (R Development Core Team, 2017) with the package lme4 (Bates,

Maechler, Bolker, & Walker, 2015).

Repeated Measures Correlations

      To determine the overall level of correlation among measures of religiosity,

religious coping, emotion dysregulation, and mood, repeated measures correlations were

computed for descriptive purposes. Correlations were computed for each measure

subscale separately first for the sample as a whole, and then for religious and non-

religious participants separately. Repeated measures correlations were computed using

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[2]The Organizational Religiosity and Non-Organizational Religiosity subscales are comprised of one item
each and were therefore not examined in a generalizability theory framework.

the rmcorr package (Bakdash & Marusich, 2018). Equation 6 represents the method of computing these correlations, such that $Measure1_{ij}$ is value of $Measure1$ for the *i*th participant at time *j*, $\overline{Measure2_i}$ is the mean of $Measure2$ for the *i*th participant, $Participant_i$ is a unique identifier for each subject, $c(Measure2_i)$ is the covariate for the *i*th participant, and ε_{ij} is the error for the *i*th participant at time *j*.

(6) Repeated measures correlation estimate

$$Measure1_{ij} = \overline{Measure2_i} + Participant_i + c(Measure2_i) + \varepsilon_{ij}$$

Modeling Associations at Distinct Time Intervals

A series of multilevel models were conducted to characterize how religiosity and religious coping are associated with emotion regulation difficulties and mood (both positive and negative affect). Daily measures of the DERS (full scale), PANAS positive affect, and PANAS negative affect were each used as dependent variables in separate models. Independent variables included negative religious coping (RCOPE), positive religious coping (RCOPE), and intrinsic religiosity (DUREL) as fixed effects. Subject, day of week, and religious affiliation were included as random effects. While dependent variables were always at the day level in each model, independent variables were first computed using baseline estimates, then with same-day estimates (time), and finally with estimates from a 1-day lag (time – 1). Conceptual models for each timeframe are presented in equations 7-9 using positive affect as an example dependent variable. To examine the potential impact of running multiple tests, the Benjamini-Hochburg procedure was used to adjust p-values (Benjamini & Hochburg, 1995). This procedure controls for false discovery rate, or the expected proportion of falsely rejected

hypotheses. A "family" of tests was defined as independent tests using the same dependent variable (e.g., negative affect). Multilevel models were computed using the lme4 (Bates et al., 2015) and lmerTest (Kuznetsova, Brockhoff, & Christensen, 2017) packages in R.

(7) Baseline Model for Positive Affect

Positive Affect (Day) = b_0 (Intercept) + b_1 (*Baseline* Negative Religious Coping) + b_2 (*Baseline* Positive Religious Coping) + b_3 (*Baseline* Religiosity) + [b_4 (Subject) + b_5 (Day of Week) + b_6 (Religious Affiliation)]

(8) Same-Day Model for Positive Affect

Positive Affect (Day) = b_0 (Intercept) + b_1 (*Day* Negative Religious Coping) + b_2 (*Day* Positive Religious Coping) + b_3 (*Day* Religiosity) + [b_4 (Subject) + b_5 (Day of Week) + b_6 (Religious Affiliation)]

(9) 1-Day Lag Model for Positive Affect

Positive Affect (Day) = b_0 (Intercept) + b_1 (*Day-1* Negative Religious Coping) + b_2 (*Day-1* Positive Religious Coping) + b_3 (*Day-1* Religiosity) + [b_4 (Subject) + b_5 (Day of Week) + b_6 (Religious Affiliation)]

Emotional Inertia

To supplement self-report measures of emotion regulation difficulties as captured by the DERS, emotional inertia was computed using the procedure outlined by Houben and colleagues (2015). This is operationalized as the degree to which affect carries over

from one point of measurement to the next. A multilevel modeling approach was

employed to estimate the autocorrelation coefficients of positive and negative affect, as

well as the interaction between inertia and religiosity, and inertia and religious coping. A

conceptual model for emotional inertia is presented in equation 10 using positive affect as

an example (negative affect was computed separately).

(10) Emotional Inertia Model for Positive Affect

Positive Affect (Day) = b_0 (Intercept) + b_1 ($Day\text{-}1$ Positive Affect) +

b_2 ($Day\text{-}1$ Negative Religious Coping) + b_3 ($Day\text{-}1$ Positive

Religious Coping) + b_4 ($Day\text{-}1$ Religiosity) + b_5 ($Day\text{-}1$ Positive

Affect * $Day\text{-}1$ Negative Religious Coping) + b_6 ($Day\text{-}1$ Positive

Affect * $Day\text{-}1$ Positive Religious Coping) + b_7 ($Day\text{-}1$ Positive

Affect * $Day\text{-}1$ Religiosity) + [b_8 (Subject) + b_9 (Day of Week) +

b_{10} (Religious Affiliation)]

RESULTS

Reliability of Measures of Religiosity and Religious Coping

Variance Composition of the DUREL and RCOPE

Results from G study analyses are reported in Tables 3 and 4. For the DUREL intrinsic religiosity scale, the majority of the variance was due to subject (67%), and 11% of the variance was due to the subject by day interaction, indicating that most of the variance in intrinsic religiosity was accounted for by individual differences (between-person effect) and how individuals varied in their trajectories over time. 11% of the variance was due to religious affiliation, and approximately 8% was due to residual error. The subject by item interaction accounted for 3.5% of the variance, while item, day, and the item by day interaction each accounted for less than 0.5% of the variance.

In the full sample, 58% of the variance in the RCOPE positive religious coping subscale was due to subject, and 10% of the variance was due to the subject by day interaction, showing a similar pattern to the DUREL. Residual error accounted for nearly 19% of the variance, and the subject by item interaction accounted for 8%. Religion accounted for only 4% of the variance, and item, day, and the item by day interaction accounted for 1% or less of the variance. In the religious sample, variance % estimates were similar to those of the full sample. However, in the non-religious sample, only 49% of the variance in positive religious coping was due to subject, and residual error accounted for 33% of the variance.

The negative religious coping subscale showed a markedly different pattern than positive religious coping, with residual error accounting for 47% of the variance in the full sample. Subject and the subject by day interaction each accounted for approximately

24% of the variance in negative religious coping, and the subject by item interaction accounted for 5%. Item, day, the item by day interaction, and religion each accounted for less than 0.5%. Religious and non-religious participants showed different patterns of variance composition, most notably in subject, the subject by day interaction, and residual error. Residual error was higher for religious participants (53%) compared to non-religious participants (35%). Non-religious participants showed a higher percentage of variance due to subject (46%) than religious participants (12%), while religious participants had a higher proportion of variance due to the subject by day interaction (31%) than non-religious participants (11%). This suggests that variance in negative religious coping may be due to individual differences for non-religious people, while differences in individual trajectories over time are more prevalent in religious people.

Reliability of the DUREL and RCOPE

D study reliability estimates are presented in Tables 6, 7 and 8. All estimates for the DUREL were above 0.80, indicating that the intrinsic religiosity subscale is reliable on a single fixed day ($R_{1f} = 0.963$), a single random day ($R_{1r} = 0.836$), and when averaged across days ($R_{kf} = 0.998$). The DUREL can also reliably detect change over a fixed time period ($R_c = 0.803$). These results indicate that while the DUREL can detect changes over time reliably, day of measurement may not systematically influence responses and the DUREL could be averaged across a fixed period of time.

The positive religious coping subscale showed a similar pattern to the DUREL in religious participants, with all estimates at or above 0.80 (see Table 7). Estimates for non-religious participants were at or above 0.70. R_{1f} and R_{kf} were above 0.90 in both groups, indicating that positive religious coping is reliable on a fixed day or when averaged

across a fixed period of time. Estimates for R_{1r} and R_c were slightly lower for the non-religious group, though estimates were adequate in both groups, suggesting that like the DUREL, the positive religious coping subscale is sensitive to change, and measures collected on different days can be meaningfully compared.

In contrast, a low R_{1r} for the negative religious coping subscale, particularly in the religious sample ($R_{1r} = 0.253$) suggests that day of measurement is important when measuring negative religious coping. The non-religious sample showed a nearly identical pattern of reliability estimates for negative and positive religious coping, with an adequate R_{1r} ($R_{1r} = 0.742$) indicating that day of measurement may not be influential for non-religious persons. For religious participants, when day is fixed reliability of the negative religious coping subscale was adequate ($R_{1f} = 0.731$). When averaging across a fixed period of time reliability was excellent ($R_{kf} = 0.987$), and reliability to detect change was good ($R_{1r} = 0.802$).

Associations Among Religiosity, Religious Coping, and Emotions

Repeated measures correlations among study measures are reported in Table 9. Intraclass correlation coefficients (ICC) calculated from random effect models found that without religiosity or religious coping in the model, subject accounted for 66% of the variance in emotion regulation (DERS), 58% of the variance in positive affect, and 49% of the variance in negative affect. Day of week accounted for approximately 1% of the variance in emotion regulation, 2% of the variance in positive affect, and 1% of negative affect. Religious affiliation accounted for less than 1% of the variance in all three constructs.

Difficulties in Emotion Regulation

Fixed effect estimates for difficulties in emotion regulation regressed on baseline, same day, and 1-day lag variables are reported in Table 10. The intercept for the baseline model indicates that at an average level of all other variables in the model, DERS was 1.73 ($t = 30.06$, $p < .001$), with similar results when measured at the same day and 1-day lag. Negative religious coping was a significant predictor of DERS when measured at baseline ($b = 0.20$, $t = 3.01$, $p < .01$), same day ($b = 0.28$, $t = 7.65$, $p < .001$), and 1 day lag ($b = 0.11$, $t = 3.00$, $p < .01$), such that higher levels of negative religious coping were associated with more difficulties in emotion regulation. Positive religious coping and intrinsic religiosity were not significant predictors at any time (baseline, same day, or 1-day lag).

Positive Affect

Positive affect fixed effect estimates are reported in Table 11. The intercept for the baseline model indicates that at an average level of all other variables in the model, PANAS positive affect was 2.63 ($t = 35.37$, $p < .001$), with similar results for same day and 1-day lag models. Negative religious coping at baseline was a significant, negative predictor of daily positive affect ($b = -0.35$, $t = -2.79$, $p < .01$), but was not significant when measured on the same day or a 1-day lag. Positive religious coping was a significant predictor of daily positive affect when measured at baseline ($b = 0.23$, $t = 1.99$, $p < .05$), same day ($b = 0.16$, $t = 2.98$, $p < .01$), and 1-day lag ($b = 0.14$, $t = 2.58$, $p < .01$), such that higher levels of positive religious coping were associated with higher levels of daily positive affect.

Negative Affect

Negative affect fixed effect estimates are reported in Table 12. The intercept for the baseline model indicates that at an average level of all other variables in the model, PANAS negative affect was 1.60 ($t = 17.61$, $p < .001$), with similar results for same day and 1-day lag models. Negative religious coping on the same day was a significant predictor of daily negative affect ($b = 0.35$, $t = 6.40$, $p < .001$), as was 1-day lag ($b = 0.18$, $t = 3.18$, $p < .01$), but baseline negative religious coping was not a significant predictor. Positive religious coping was also a significant predictor of daily negative affect, but only when measured on the same day ($b = 0.09$, $t = 2.43$, $p < .05$).

Emotional Inertia

Fixed effect estimates for negative affect inertia are presented in Table 13 and estimates for positive affect inertia are in Table 14. A significant inertia effect was identified for negative affect ($b = 0.24$, $t = 12.21$, $p < .001$), though there were no significant interactions. A significant inertia effect was also identified for positive affect ($b = 0.20$, $t = 10.19$, $p < .001$). There was also an interaction between the inertia coefficient and intrinsic religiosity, such that higher levels of intrinsic religiosity were associated with increased autocorrelation in positive affect ($b = 0.04$, $t = 2.15$, $p < .05$).

False Discovery Rate *p*-Value Corrections

Raw and adjusted p-values using the Benjamini-Hochburg procedure are presented in Table 15 for positive affect, negative affect, and emotion regulation difficulties. When controlling for the false discovery rate, several *p*-values increased. For example, the raw *p*-value for baseline negative religious coping predicting daily positive affect increased from $p = 0.007$ to $p = 0.030$. However, no raw *p*-values that were found

to be significant increased after this adjustment to the point that they passed the $p < .05$ threshold for significance. Therefore, all significant findings remained after implementing the Benjamini-Hochburg procedure.

DISCUSSION

Reliability of Daily Measures of Religiosity and Religious Coping

The Duke Religion Index and the RCOPE both demonstrated psychometric properties that support their use in daily diary contexts. Across all participants, both religious and non-religious, the DUREL had excellent reliability at a single fixed day, random day, and when averaged across a fixed time period. The DUREL was also able to reliably detect day to day changes in intrinsic religiosity. However, treatment of time as fixed or random did not significantly impact the reliability of the DUREL. This suggests that individuals assessed on different days, as is often the case in behavioral research, can still be meaningfully compared, as can aggregate measures.

While religious coping was hypothesized to be influenced by the day of measurement, this only appeared to be the case for the negative religious coping subscale among religious participants. The negative coping subscale of the RCOPE showed low reliability when day was random, indicating that day of measurement may impact responses as individuals engage in particular forms of negative religious coping on some days and not others. When using in research contexts, it may be most appropriate to gather multiple measures of negative religious coping in order to aggregate across days or examine daily fluctuations. In contrast, positive religious coping showed similar results to the DUREL, suggesting that the behaviors captured in this subscale may be more habitual or less influenced by day of measurement. This would be consistent with conceptualizations of positive religious coping as a feature of broader ritual practice (Pargament et al., 1998), in addition to its intentional use to manage mood and distress in response to stress.

While positive and negative religious coping were both hypothesized to be influenced by day of measurement, there are several reasons why different patterns may have emerged between the two forms of religious coping. Positive religious coping may only be intentionally leveraged by religious believers in response to major life stressors, which may not be present over the course of a given 21-day period. Additionally, the way that positive and negative religious coping are measured on the RCOPE may influence the degree to which daily fluctuation occurs. The positive religious coping scale describes several "active" behaviors (e.g., "asked forgiveness for my sins", "focused on religion to stop worrying about my problems") which may only be leveraged when an individual experiences a major stressor. For others, these could be habitual behaviors that do not significantly vary based on the person's emotional experiences on a particular day. In contrast, the negative religious coping subscale describes more "passive" cognitions that could occur unintentionally in response to a minor life stressor or in the absence of a stressor (e.g., "wondered whether God had abandoned me", "decided the devil made this happen"). Such cognitions would likely not be part of a religious person's daily ritual practice and may be more closely linked to minor fluctuations in negative affect.

Associations Among Religiosity, Religious Coping, and Affect

Positive Affect

As hypothesized, positive religious coping measured at baseline, same day, and 1-day lag was associated with increased daily positive affect. This indicates that participating in religious ritual and reappraisal regularly or in response to stress increases subjective experience of positive mood states. However, intrinsic religiosity was not significantly associated with higher levels of positive affect at any measurement point.

This suggests that relative importance or centrality of religious faith may play less of a role in achieving or maintaining positive mood states than the actual religious activities that a person engages in. Negative religious coping was associated with significantly lower levels of positive affect, but only when measured at baseline. This may reflect a conceptual distinction between the baseline use of the RCOPE, which orients participants to how they respond to "major problems in [their] life" and daily use, when participants may not have experienced a significant problem but may have engaged in religious coping in response to various life events or affective states.

Negative Affect

Baseline measures of positive and negative religious coping were not significantly associated with negative affect, suggesting that these dispositional measures of religious coping in response to major life problems may not be as relevant to daily experiences of general negative affect. Negative religious coping was associated with increased negative affect when measured on the same day, and a 1-day lag, suggesting that negative religious coping is associated with same-day experiences of negative affect, and predicts increased negative affect on the following day. Positive religious coping, when measured on the same day as negative affect, was associated with increased negative affect. As noted in hypotheses, this may reflect that some individuals increase their use of positive religious coping in the presence of negative affect in order to improve their mood. Additional measurement occasions throughout the day would be needed to assess the temporal ordering of mood and coping and determine the effectiveness of positive coping in response to negative mood.

Associations Among Religiosity, Religious Coping, and Emotion Regulation

Difficulties in Emotion Regulation

Consistent with extant literature suggesting that religiosity enhances emotion regulation ability, it was hypothesized that intrinsic religiosity and positive religious coping would be associated with fewer difficulties in emotion regulation. However, neither construct was significantly associated with difficulties in emotion regulation when assessed at baseline, same day, or 1-day lag. This may be due, in part, to characteristics of the sample assessed, which had lower than average reported means on both the DUREL and the positive religious coping scale of the RCOPE; However, lower scores on such measures are common in emerging adults, particularly among college students (Eagan et al., 2016).

These null findings among religiosity, positive religious coping, and difficulties in emotion regulation may suggest that while religiosity and positive religious coping can influence positive and negative affect, they may not operate in concert with emotion regulation as has previously been hypothesized (Vishkin, Ben-Nun Bloom, & Tamir, 2019). Conversely, negative religious coping was associated with difficulties in emotion regulation when measured at each time period, indicating that the sentiments of spiritual persecution and abandonment that characterize negative religious coping accompany and predict difficulties in emotion regulation. This may indicate that negative religious coping contributes to difficulties in emotion regulation, such that individuals who respond to problems with feelings of spiritual abandonment are more likely to have more general difficulties regulating their emotions. Future work should consider negative religious

coping alongside similar constructs (e.g., learned helplessness) to determine whether this is a unique feature of negative religious coping or of coping more broadly.

Emotional Inertia

While religious coping (both positive and negative) was hypothesized to be most closely associated with maintenance and change of emotional states, neither form of religious coping enhanced or suppressed positive or negative affect inertia. While a 1-day lag measurement of negative religious coping predicted higher levels of negative affect on the following day, negative religious coping was not significantly associated with negative affect inertia, suggesting that individual differences or other factors of daily life may be more relevant to emotional inertia than religious coping. Consistent with hypotheses and literature indicating that higher levels of religiosity are associated with increased positive affect, intrinsic religiosity did significantly enhance the positive affect inertia effect. This indicates that individuals with higher levels of intrinsic religiosity experience more prolonged periods of positive affect and are less likely to experience frequent deviations. However, intrinsic religiosity did not suppress the inertia effect of negative affect.

<div align="center">Summary</div>

This study found that significant associations between religiosity, religious coping, affect, and emotion regulation can be reliably assessed in a daily diary context. While positive religious coping was associated with positive affect and negative religious coping was associated with negative affect across time, these findings did not support the conceptualization that religiosity confers emotional benefits by enhancing emotion regulation abilities. Rather, negative religious coping was associated with increased

emotion difficulties, indicating that individuals may be at risk of more emotional difficulty if they engage in this form of coping. Rather than promoting emotion regulation strategy use, these findings suggest that emotional well-being may be promoted by intrinsic religiosity enhancing the inertia of positive affect over time.

Limitations and Future Directions

This study was novel in its use of repeated measures to examine associations among affect, regulation, and religiosity. While examining these associations at varying timeframes allows for a better understanding of how these constructs relate across time, these findings cannot provide a mechanistic explanation for how religious coping influences mood, as estimates were only assessed at the daily level. Future work should employ ecological momentary assessment techniques to assess stress, mood, and religious coping at multiple time points per day to determine whether individuals employ religious coping in response to specific stressors and determine whether this effectively modulates mood at the following measurement occasion. Examining religious coping alongside other coping techniques, such as suppression and cognitive reappraisal, will provide a better characterization of how religious coping may operate as a putative emotion regulation strategy compared to other forms of regulation.

While the sample size of the study and number of measurement occasions were numerous, the overall sample was relatively homogeneous. In particular, the majority of participants that identified as religious were Christian. Group comparisons between religious groups could not be assessed due to disparity in sample size, though religious traditions vary significantly in how they promote regulatory practices and emotional goals. This sample was also relatively young, and in the United States younger adults

tend to report lower levels of religious participation and centrality (Pond, Smith, & Clement, 2010). This sample was also primarily European American, and individuals of European ancestry tend to report lower levels of intrinsic religiosity and receive less emotional benefit from religious faith compared to American ethnic minority groups (Blaine & Crocker, 1995). Future work should examine these associations in samples with greater diversity in religious affiliation, age, and ethnicity in order to determine whether these finding are specific to the demographic features of this sample. Finally, the participants in this study were relatively psychologically healthy, as participants were not selected for emotion regulatory difficulties. Individuals employing religious coping strategies while experiencing significantly more variability in affect or difficulty in emotion regulation may show different patterns to individuals utilizing religious coping in the context of their daily lives.

Recommendations

Future research on the associations among these constructs should 1) employ repeated measurement techniques such as ecological momentary assessment (EMA) to capture emotions in a dynamic way and establish temporal ordering of coping and affect, 2) ensure reliability of religiosity and religious coping measures for use in an EMA framework, 3) recruit samples that have adequate diversity of religious affiliation, age, and ethnicity to determine the generalizability of findings and 4) include participants with significant difficulties in emotion regulation, such as those with Borderline Personality Disorder, in order to assess a broader range of affective difficulties.

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APPENDIX A

Table 1

Sample Characteristics

_____

<div align="center">Sex</div>

Female	51	35%
Male	96	65%

_____

<div align="center">Gender</div>

Man	95	65%
Woman	51	35%
Other than Listed	1	1%

_____

<div align="center">Sexual Orientation</div>

Asexual	6	4%
Bisexual	8	5%
Gay/Lesbian	1	1%
Pansexual	2	1%
Straight	128	87%
Other than Listed	2	1%

_____

<div align="center">Ethnic Identity</div>

African American/ Black American - U.S. Background	4	3%
African American/Black American - Recent African Background	1	1%
White American - U.S. Background	105	71%
White American - Recent European/Other Background	7	5%
East Asian	20	14%
South Asian	7	5%
Middle Eastern	0	0%
Pacific Islander	0	0%
Hispanic/Latino Background	11	7%
Native American/Indian Background	0	0%
Other	1	1%

_____

<div align="right">(table continues)</div>

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Time in the U.S.		
Less than 1 Year	4	3%
1-5 Years	9	6%
5-10 Years	4	3%
10-15 Years	2	1%
More than 15 Years	128	87%

Religious Affiliation		
Agnosticism	9	6%
Atheism	9	6%
Baha'i	0	0%
Buddhism	0	0%
Christianity-Catholic	39	27%
Christianity-Protestant	45	31%
Christianity-Other	4	3%
Confucianism	0	0%
Hinduism	2	1%
Islam	0	0%
Judaism	0	0%
Unaffiliated	34	23%
Other Religion/Spiritual Tradition	5	3%

Psychological Services Utilization (ever)		
Yes	46	31%
No	101	69%

Psychotrophic Medications (ever)		
Yes	23	16%
No	124	84%

Note. Mean Age = 19.5 (range 18-26).

Table 2

Means and Standard Deviations

Scale	Baseline				Daily			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Intrinsic Religiosity (DUREL)	2.65	1.24	1	5	1.84	1.25	1	5
Organizational Religious Activity (DUREL)	2.8	1.27	1	5	1.19	0.85	1	6
Non-Organizational Religious Activity (DUREL)	2.12	1.46	1	5	1.29	0.73	1	6
Positive Religious Coping (RCOPE)	2.07	0.96	1	4	1.34	0.65	1	4
Negative Religious Coping (RCOPE)	1.4	0.52	1	3.71	1.07	0.23	1	3.29
Difficulty in Emotion Regulation (DERS)	2.35	0.61	1.06	3.83	1.7	0.51	1	4.17
Positive Affect (PANAS)					2.64	1.02	1	5
Negative Affect (PANAS)					1.51	0.65	1	4.6

Table 3

Variance Partitioning of the Duke Religion Index (DUREL)

Source of Variance	Estimate	Variance (%)
σ^2 Subject	1.102	67.15
σ^2 Item	0.000	0.02
σ^2 Day	0.001	0.08
σ^2 Religion	0.175	10.70
σ^2 Item*Day	0.000	0.01
σ^2 Subject*Item	0.058	3.51
σ^2 Subject*Day	0.175	10.70
σ^2 Residual error	0.129	7.89
σ^2 Total		100

Table 4

Variance Partitioning of Positive Religious Coping (RCOPE)

	All Subjects		Positive Coping Religious Subjects		Non-Religious Subjects	
Source of Variance	Estimate	Variance (%)	Estimate	Variance (%)	Estimate	Variance (%)
σ^2 Subject	0.307	58.32	0.423	60.15	0.052	48.59
σ^2 Item	0.006	1.05	0.000	0.00	0.000	0.00
σ^2 Day	0.000	0.09	0.000	0.14	0.000	0.00
σ^2 Religion	0.020	3.75	0.011	1.62	0.000	0.28
σ^2 Item*Day	0.000	0.04	0.000	0.05	0.000	0.02
σ^2 Subject*Item	0.043	8.08	0.059	8.46	0.008	7.10
σ^2 Subject*Day	0.053	10.05	0.076	10.69	0.011	10.90
σ^2 Residual error	0.098	18.63	0.133	18.88	0.035	33.11
σ^2 Total		100		100		100

Table 5

Variance Partitioning of Negative Religious Coping (RCOPE)

| | All Subjects | | Negative Coping | | | |
| | | | Religious Subjects | | Non-Religious Subjects | |
Source of Variance	Estimate	Variance (%)	Estimate	Variance (%)	Estimate	Variance (%)
σ^2 Subject	0.022	23.78	0.012	12.44	0.041	45.66
σ^2 Item	0.000	0.05	0.000	0.00	0.000	0.00
σ^2 Day	0.000	0.00	0.000	0.00	0.000	0.03
σ^2 Religion	0.000	0.00	0.000	0.00	0.000	0.29
σ^2 Item*Day	0.000	0.01	0.000	0.05	0.000	0.00
σ^2 Subject*Item	0.005	4.89	0.004	3.70	0.007	7.59
σ^2 Subject*Day	0.023	24.25	0.029	30.66	0.010	11.23
σ^2 Residual error	0.044	47.01	0.051	53.14	0.032	35.21
σ^2 Total		100		100		100

Table 6

Duke Religion Index D Study Estimates

	Estimate	Value
R_{1f}	Reliability on a single fixed day	0.963
R_{1r}	Reliability on a single random day	0.836
R_{kf}	Reliability for average over k = 21 fixed days	0.998
R_c	Reliability of change over a fixed period of time	0.803

Table 7

Positive Religious Coping (RCOPE) D Study Estimates

	Positive Coping		
Estimate	All Subjects	Religious Subjects	Non-Religious Subjects
R_{1f}	0.957	0.958	0.913
R_{1r}	0.823	0.819	0.760
R_{kf}	0.998	0.998	0.995
R_c	0.791	0.799	0.697

Table 8

Negative Religious Coping (RCOPE) D Study Estimates

	Negative Coping		
Estimate	All Subjects	Religious Subjects	Non-Religious Subjects
R_{If}	0.785	0.731	0.903
R_{Ir}	0.442	0.253	0.742
R_{kf}	0.987	0.973	0.995
R_c	0.783	0.802	0.691

Table 9

Repeated Measures Correlations

	Emotion Regulation Difficulties	Positive Affect	Negative Affect
	Full Sample		
Negative Religious Coping	0.150***	0.021	0.140***
Positive Religious Coping	0.067**	0.065***	0.102***
Intrinsic Religiosity	0.040	0.043*	0.035
	Religious		
Negative Religious Coping	0.160***	0.006	0.121***
Positive Religious Coping	0.050*	0.068**	0.080***
Intrinsic Religiosity	0.024	0.046	0.002
	Non-Religious		
Negative Religious Coping	0.150***	0.072**	0.204***
Positive Religious Coping	0.061**	0.066	0.228***
Intrinsic Religiosity	0.116***	0.039	0.187***

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

Table 10

Fixed Effect Estimates of Daily Difficulties in Emotion Regulation

Predictors	Baseline			Same Day			1 Day Lag		
	B	SE	t	B	SE	t	B	SE	t
(Intercept)	1.73***	0.06	30.06	1.72***	0.04	39.08	1.71***	0.04	38.91
Negative Religious Coping	0.20**	0.07	3.01	0.28***	0.04	7.65	0.11**	0.04	3.00
Positive Religious Coping	0.06	0.06	1.02	0.00	0.02	0.12	-0.01	0.02	-0.21
Intrinsic Religiosity	-0.03	0.04	-0.71	0.01	0.01	0.82	0.01	0.01	1.06

$*p < 0.05.$ $**p < 0.01.$ $***p < 0.001.$

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Table 11

Fixed Effect Estimates of Daily Positive Affect

Predictors	Baseline			Same Day			1 Day Lag		
	B	SE	t	B	SE	t	B	SE	t
(Intercept)	2.63***	0.07	35.37	2.62***	0.08	32.49	2.59***	0.09	29.17
Negative Religious Coping	-0.35**	0.12	-2.79	-0.02	0.08	-0.21	-0.11	0.08	-1.31
Positive Religious Coping	0.23*	0.12	1.99	0.16**	0.05	2.98	0.14**	0.05	2.58
Intrinsic Religiosity	-0.03	0.08	-0.34	0.05	0.03	1.89	-0.01	0.03	-0.37

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

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Table 12

Fixed Effect Estimates of Daily Negative Affect

Predictors	Baseline			Same Day			1 Day Lag		
	B	SE	t	B	SE	t	B	SE	t
(Intercept)	1.60***	0.09	17.61	1.59***	0.08	19.51	1.59***	0.08	18.87
Negative Religious Coping	0.12	0.08	1.59	0.35***	0.06	6.40	0.18**	0.06	3.18
Positive Religious Coping	0	0.07	0.03	0.09*	0.04	2.43	0.01	0.04	0.25
Intrinsic Religiosity	0.02	0.05	0.29	0	0.02	-0.05	0.04	0.02	1.94

*p < 0.05. **p < 0.01. ***p < 0.001.

Table 13

Fixed Effect Estimates of Negative Affect Inertia

Predictors	*B*	*SE*	*t*
(Intercept)	1.59***	0.07	21.19
Negative Religious Coping (NRC)	0.11	0.06	1.81
Positive Religious Coping (PRC)	-0.01	0.04	-0.34
Intrinsic Religiosity (IR)	0.04*	0.02	1.99
Inertia	0.24***	0.02	12.21
NRC * Inertia	-0.01	0.05	-0.26
PRC * Inertia	0.01	0.04	0.35
IR * Inertia	0.01	0.02	0.55

*p < 0.05. **p < 0.01. ***p < 0.001.

Table 14

Fixed Effect Estimates of Positive Affect Inertia

Predictors	*B*	*SE*	*t*
(Intercept)	2.59***	0.07	35.53
Negative Religious Coping (NRC)	-0.11	0.08	-1.28
Positive Religious Coping (PRC)	0.11*	0.05	2.07
Intrinsic Religiosity (IR)	-0.01	0.03	-0.27
Inertia	0.20***	0.02	10.19
NRC * Inertia	-0.00	0.07	-0.03
PRC * Inertia	-0.04	0.04	-1.09
IR * Inertia	0.04*	0.02	2.15

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

Table 15

False Discovery Rate p-Value Adjustments Using Benjamini-Hochberg Procedure

	Positive Affect		Negative Affect		Emotion Regulation Difficulties	
	Raw p Value	Benjamini–Hochberg	Raw p Value	Benjamini–Hochberg	Raw p Value	Benjamini–Hochberg
bNRC	0.007	0.030	0.080	0.144	0.001	0.003
bPRC	0.077	0.139	0.751	0.901	0.857	0.905
bIR	0.815	0.834	0.447	0.671	0.269	0.519
dNRC	0.834	0.834	0.000	0.000	0.000	0.000
dPRC	0.003	0.026	0.015	0.046	0.905	0.905
dIR	0.059	0.133	0.963	0.963	0.411	0.617
lNRC	0.189	0.283	0.001	0.007	0.003	0.008
lPRC	0.010	0.030	0.801	0.901	0.833	0.905
lIR	0.709	0.834	0.052	0.117	0.288	0.519

Note. bNRC = Baseline Negative RCOPE, bPRC = Baseline Positive RCOPE, bIR = Baseline Intrinsic Religiosity, dNRC = Day Negative RCOPE, dPRC = Day Positive RCOPE, dIR = Day Intrinsic Religiosity, lNRC = Lag Negative RCOPE, lPRC = Lag Positive RCOPE, lIR = Lag Intrinsic Religiosity.