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## During, After, or Both? Isolating the Effect of Religious Support on Recidivism During Reentry

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### Abstract

**Objectives**—To examine the independent and interdependent roles of baseline religious support during incarceration and within-individual changes in religious support on recidivism during the prisoner reentry process.

**Methods**—Using data from the Serious and Violent Offender Reentry Initiative, cross-lagged dynamic panel models are used to examine the respective roles of baseline differences and within-individual changes in religious support on two variety indices encompassing substance use and criminal offending while simultaneously controlling for pre-incarceration levels of substance use and offending.

**Results**—Findings show that within-individual increases in religious support protect against substance use post-release, while baseline levels of religious support do not significantly influence substance use. Additionally, baseline levels of religious support fail to condition this relationship. Findings assessing criminal offending demonstrate that baseline religious support and within-individual changes in religious support fail to relate to offending independently. However, an interaction term reveals that the combination of the two relates to significantly lower levels of offending post-release.

**Conclusions**—Findings offer encouragement for those involved in the work of providing religious support to ex-offenders in the community, reaffirming that tailoring support programs to the religious or spiritual ways individuals make meaning in their lives can improve reentry outcomes. Methodologically, failing to distinguish between baseline levels of religious support and post-release changes in religious support fails to capture the complexity of religiosity on the reentry process.

### Keywords

Religion; Reentry; Recidivism; Measurement

### Introduction

Practitioners recognize the importance of accommodating the humanist, spiritual or religious ways people make meaning in their treatment and reentry programming (Worthington et al.

2011). The faith community is also considered to be uniquely positioned to influence the thinking of offenders and help to reconnect them to their community (Drake et al. 2009; Ericson 2001), given that religious leaders and volunteers often serve as role models, in addition to conveying positive life lessons from their teachings (Levitt and Loper 2009; Sundt et al. 2002). The building of social support, trust, and hope for the future have all been documented by participants in faith-based programs for offenders (Armstrong 2014; Jang et al. 2017; Johnson et al. 2015; Roberts and Stacer 2016; Roman et al. 2007). Yet, conclusions are difficult to draw regarding the relation between religion and successful reentry of exoffenders (Baier and Wright 2001; Johnson et al. 2000; Power et al. 2014). Some prior studies have revealed an inverse relationship between religiosity and the number of infractions while incarcerated (Clear et al. 1992; Levitt and Loper 2009; O'Connor and Perreyclear 2002), religiosity and substance use post-release (Stansfield et al. 2017a, b), and religion and recidivism (Johnson 2004, 2011). Conversely, other studies have shown a null association between religion and criminal thinking (Gerace and Day 2010) or behavior post-release (Aos et al. 2006; O'Connor et al. 1997; Stansfield et al. 2017a, b), with diminishing effects overtime (Giordano et al. 2008).

As the number of studies on the topic of the effect of religion in prison and/or religion post-release has increased, numerous systematic reviews and meta-analyses on the topic have been conducted (e.g., Dodson et al. 2011; Johnson et al. 2000; Kelly et al. 2015; Power et al. 2014). While these studies are largely sanguine about the role of religion for exoffenders post-release, two common criticisms emerge. The first concerns wide variation in the conceptualization and measurement of religion across studies. Concepts commonly studied include religious belief, religious attendance, religious conversion, participation in faith-based programs, perceived support from religious participation, or a combination of these concepts. In this context, a systematic review of 40 studies by Johnson et al. (2000) determined that multidimensional measures of religion produced more consistent results, suggesting the importance of both individual involvement and the ability to draw support from religion.

A second common criticism concerns the quality of methodological techniques employed in many studies. As Power et al. (2014) discussed, conclusions on the effectiveness of faith-based interventions are difficult to draw, given the paucity of studies with sufficient statistical power that adequately control for other variables. There have been numerous advancements since, with studies using large, longitudinal samples to study the effectiveness of religion (e.g., Jang et al. 2017; Stansfield et al. 2017a). Even in these studies, however, scholars have been unable to separate their measures of religiosity during incarceration from measures of religiosity post-release (e.g., Stansfield et al. 2017a). This may be because measures of religiosity during incarceration are unavailable or because there are two levels of effects (between-individual differences and within-individual changes). However, splitting these effects is not possible in some conventional modeling strategies (Rabe-Hesketh and Skrondal 2012) because controlling for lagged measures of the dependent variable introduces collinearity and independence violations (Allison 2015), or some combination of these issues. Overall, what remains clear is no prior research has examined how levels of religious support during incarceration (between-individuals) as well as changes in religious support across time (within-individuals) concurrently relate to reentry outcomes.

The numerous successful prison conversion stories that have been documented suggest that a positive effect of religion in the lives of exoffenders does not necessarily require a prior religious background. Indeed, as Stansfield et al. recently suggested (2017b), the theoretically more important concept may be the “current reward” an individual is receiving from the religious or spiritual way they make meaning in their life. Nevertheless, some prior grounding in religion or spirituality may make it easier for individuals who were involved in religion earlier in their life, fell away, and then rediscovered religious or spiritual ways of making meaning during or after incarceration. A prior grounding may also make it easier to connect to, and draw support from, religion during the tumultuous reentry process. Numerous scholars have suggested that drawing strength and support from religion and spirituality (including faith based assistance) in reentry programming can positively impact the reentry process (i.e., Stansfield et al. 2017a). But, the question remains: Is this still true after accounting for levels of religiosity during incarceration? The current study utilizes advances in cross-lagged modeling to answer this question, and in so doing, adds to the current literature on religion and reentry.

## Religion and Reentry: Theory and Evidence

Several criminological and psychological theories suggest ways that between-individual differences in a range of religious or spiritual experiences can reduce the risk of substance use and criminal activity. Outcomes of substance use and crime are often studied separately, with identity theory increasingly used to posit benefits of religiosity for substance use and social control theory predominantly used to predict reductions in criminal offending. Recent studies into the effect of religious and spiritual ways of making meaning on substance use have focused attention on the individual characteristics that often drive substance use and dependency, including low self-worth, lack of regard for others, and inferiority derived from prior deprivation of love or material resources (Johnson et al. 2015; Lee et al. 2014, 2016; Pagano et al. 2015). Many treatment and rehabilitation programs, including Alcoholics Anonymous, posit that the integration of spiritual virtues such as love, acceptance, humility, and altruism are thought to develop these personal characteristics (Kellam et al. 2008). Acceptance, self-esteem, empathy, and future hope are all important precursors to change in the lives of ex-offenders, as suggested by Giordano et al. (2002), and may be increased by participation in faith-based programs (Camp et al. 2008; Kerley et al. 2005).

Character development that includes a religious or spiritual dimension may facilitate an identity transformation along existential and cognitive dimensions (Jang et al. 2017). In turn, this transformation may be reinforced by the expanded social network and faith community of an individual who identifies in a religious or spiritual way. A recent study of Louisiana’s prison seminary program revealed the value inmates place on feeling accepted, self-perception, and positive self-identity (Hallett et al. 2015, 2016). This positive self-identity may be critical for desistance from substance use (Paternoster and Bushway 2009) and can serve as a coping mechanism against negative emotions and circumstances, assisting recovering individuals to deal with problems without the use of drugs or alcohol (Chu 2007; Chu et al. 2012; Kelly et al. 2015; Lee et al. 2016).

Although there is some overlap in the connections of religion with substance use and criminal offending, recent reviews of the religion-crime relationship have suggested that religiosity is especially important for some offenders as it provides a form of social support and coping by connecting individuals to prosocial peers and the faith community (Adamczyk et al. 2017; Jang 2007; Jang and Franzen 2013; Jang et al. 2017; Johnson 2011; Johnson et al. 2000; O'Connor 2004; Stansfield et al. 2017a; Stringer 2009). Social control theories are commonly invoked to explain the prosocial effect of religiosity, positing that individuals are less likely to recidivate if they have stronger prosocial attachments, a stake in conformity, and spend much of their time engaged in structured conventional activities (Giordano et al. 2008; O'Connor and Perreyclear 2002; Sampson and Laub 1993; Schroeder and Frana 2009). Drawing from Fowler and Levin's (1984) conceptualization of the stages of faith, we argue that ties to a faith community can help to develop a socialized mind and integrate individuals into a larger social context for individuals who find themselves most isolated from the larger social context. Such a transformation is not simply about adding religious knowledge; rather it conditions one's consciousness to prosocial life and facilitates an ability to deal with the uncertain and complex demands of life. The faith community may also provide very real connections to other institutions and opportunities in society, including employment (Stansfield et al. 2017a).

An extensive amount of research into the risk-need-responsivity model of correctional treatment has also highlighted the importance of support from prosocial peers, and religion and spirituality more broadly. The 'need' principle guides programs in the areas of criminogenic need that have proven to be predictive of recidivism: antisocial history (lack of self-control), antisocial personality, antisocial companions, antisocial attitudes, family functioning, substance use, employment, and use of leisure and spare time (Bonta and Andrews 2016). The principle of specific responsivity emphasizes that programs should match their services to an individual's preferences (Bonta and Andrews 2016). This includes religious and spiritual ways of making meaning for a high percentage of prisoners. For those individuals who do identify in religious or spiritual ways, positive effects of prosocial support offered by the faith community are evident in studies assessing the effect of faith based volunteers who visit offenders in prison (e.g., Duwe and Johnson 2013, 2016; Johnson 2011). As an example, evaluations of the Texas InnerChange program found that individuals in prison matched with a mentor were significantly less likely to be rearrested than individuals who did not receive a mentor, a finding explained by the range of support and services faith-based mentors offer throughout the prison and reentry process (Johnson 2011).

Theories of social control have also been recast in a time-dynamic framework to predict how within-individual increases in religious or spiritual experiences, often conceptualized as 'conversion,' may help ex-offenders successfully reintegrate into society without criminal involvement (Camp et al. 2006; Jang et al. 2017; Johnson et al. 2002; O'Connor 2004). However, few studies to date have measured the impact of change in religion on recidivism over time. Notable exceptions to this general trend include studies examining the long-term impacts of participation in prison fellowship programs (Johnson 2004; Johnson et al. 1997; Sumter 2000), receiving assistance from religion (Stansfield et al. 2017a, b), training as a volunteer prison minister (Young et al. 1995), and the impact of religious identification (Chu 2007; Ulmer et al. 2012). These studies reveal strong support for the notion that participation

in religious programs in prison is associated with fewer arrests post-release (Johnson 2011; Sumter 2000). These studies also suggest that religious conversion, seen as an ongoing and strengthening process of faith development and attachment to religion, can contribute to successful prisoner reentry via diminished substance use (Stansfield et al. 2017a).

While each of these studies offers some encouragement to practitioners and volunteers seeking to combine one's humanist, spiritual, or religious beliefs into their reentry treatment, they are also limited in their ability to isolate the individual and combined impacts of religion during and following incarceration. Inattention to this issue clouds the extant understanding of what has proven to be an elusive depiction of the functional roles of religion during reentry. It is possible that religion during incarceration may condition the likelihood of someone turning to religion during reentry—a time marked by significant strain and stress—thereby explaining why individuals who benefit from religion turn to religion. It is also possible that religious conversion, or a gaining and strengthening of one's commitment to religion, may have the greatest impact on post-release success. Thus, the current reward someone gains from religion may be the most salient aspect of the way one makes meaning in their life through their faith. Teasing out these possibilities is an important methodological step for research into the effect of religion on post-release success.

## Current Study

Though some results reveal mixed conclusions, a wide body of research finds that participation in religious programs and the support derived from religion have been shown to relate to successful reentry (e.g., Dodson et al. 2011; Johnson 2011; Young et al. 1995). Yet, prior work has failed to examine how baseline levels of religious support during incarceration (a between-individual measure) as well as changes in religious support across time (a within-individual measure) concurrently relate to reentry outcomes. Using an innovative version of a cross-lagged dynamic panel model, we address this gap in existing research by making three hypotheses based on prior work. First, we expect high levels of between-individual baseline levels of religious support to relate to significantly lower levels of substance use and criminal offending post-release (hypothesis one). Second, given recent research on the relationship between post-release religious support and recidivism, we expect within-individual increases in religious support to relate to lower levels of substance use and criminal offending during the reentry timeframe. Finally, we expect baseline levels of religious support to condition the influence of within-individual changes in religious support on offending and substance use. More specifically, we expect higher levels of baseline religious support to intensify the prosocial impact of change in religious support on both reentry outcomes.

## Methods

### Data

Data for this project come from the Serious and Violent Offender Reentry Initiative (SVORI) dataset (Lattimore and Steffey 2010). A federally-funded initiative, the SVORI data were collected to examine the influence of a variety of enhanced reentry programs on reentry outcomes (Lattimore and Steffey 2010). Enhanced reentry refers to programs such as

employment assistance, substance abuse treatment, anger management, educational and vocational training, mental health treatment, and skill classes targeting personal relationships, family and parenting, reentry planning, and life skills. More specifically, SVORI programming was designed to improve outcomes across five specific dimensions including criminal justice, employment, education, health, and housing among returning individuals (see National Institute of Justice 2017). Between 2005 and 2007, data were collected from a total of 1697 males, aged 18–69, across 14 different states. Approximately half of the sample received SVORI programming while the other half did not.

Faith-based intervention was not part of the SVORI programming because no individual can be compelled to a religious or spiritual program. But each service offered by a faith-based provider could be voluntarily attended by SVORI and non-SVORI participants alike. A wide variety of measures was collected from respondents, including experiences with substance use and criminal offending, questions about relationships with family and peers, experiences during incarceration, participation in reentry programs, behavioral characteristics, religious experiences/beliefs, and future expectations in addition to other measures (see Lattimore et al. 2010 for an overview of data collected).

Data were collected from respondents at four timepoints. Wave one data, which captured pre- and during-incarceration experiences, were collected from each respondent while incarcerated (about 30 days prior to the scheduled release data). Wave two data were collected about 3 months post-release; wave three data were collected about 9 months post-release; and wave four data were collected 15 months post-release. The post-release waves captured experiences since the previous wave. The longitudinal nature of the data, and the first wave being collected while the respondent was still incarcerated, makes SVORI an ideal dataset in which to examine reentry outcomes. As such, the current study draws data from all four waves.

### Dependent Measures

Our two dependent variables in the analysis encompass substance use and criminal offending. To capture *substance use*, we draw from a series of questions that asked each individual about any substances they may have used. At each wave, respondents were asked whether or not they used, since the previous wave: marijuana, hallucinogens, cocaine, heroin, inhalants, sedatives, methadone, amphetamines, alcohol, narcotics, or stimulants.<sup>1</sup> As some of these drugs can be prescribed by a physician, respondents were asked if they had used the substances in a manner not as prescribed by a physician to capture illicit use. Respondents could answer yes or no for each substance, and yes responses were coded as “1” while no responses were coded as “0.” Responses were summed together such that higher values indicate more substances used. As these substances represent different levels of severity (for example, marijuana use represents a much lower level of severity than heroin use), we use the severity weights developed by Pandina et al. (1981). Thus, more minor substances like alcohol and marijuana are weighted much lower than more severe substances

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<sup>1</sup>As alcohol is not illegal, we estimated models with alcohol and without alcohol included in the substance use variety index. Results of these models were substantively identical and, because individuals on parole are often required not to use alcohol, we included this measure in the variety index.



like heroin or methamphetamine.<sup>2</sup> To account for the skew in this measure, we use the natural logarithm (see Gelman and Hill 2007, pp. 60–61). The transformed measure is reported in Table 1. This logged measure has a mean of .925, an overall standard deviation of .670, and ranges from 0 to 2.485. There is more variation within-individuals across time (standard deviation = .530) than between-individuals (standard deviation = .418).

To capture *criminal offending*, we draw data from five questions asking the respondent if they: committed assault, committed battery, carried a firearm, sold illegal substances, or committed a non-violent property crime. Respondents could answer yes (coded “1”) or no (coded “0”) to each question. Like the measure of substance use, we use severity weights to account for differences in the severity of the offense (Wolfgang et al. 1985). As this variety index is skewed, we use the natural logarithm. This scale has a mean of 1.288, a standard deviation of 1.394, and ranges from 0 to 3.515. There is more variation within-individuals across time (standard deviation = 1.032) than between-individuals (standard deviation = .945).

### Independent Measures

The primary independent measures of interest are religious support. Consistent with two prior research projects using the SVORI data (Stansfield et al. 2017a, b), we use three items to capture religious support. Respondents were asked (1) if religion/spirituality made a difference for them, and could respond yes (coded as ‘1’) or no (coded as ‘0’). Next, respondents were asked (2) if they had received spiritual/religious assistance, and could answer yes (coded as ‘1’) or no (coded as ‘0’). Finally, respondents were asked if (3) they found strength in religion, and could respond along a four-point scale (strongly disagree, disagree, agree, and strongly agree). To maintain consistency in coding, this item was coded into a dichotomous variable (1 = agree/strongly agree, 0 = disagree/strongly disagree).

Due to the collinearity present among these items, we were unable to include them individually. However, a Kuder–Richardson reliability coefficient demonstrated a high level of consistency in among these measures (Webster 1960). Additionally, prior work has used this identical measure (Stansfield et al. 2017a). Therefore, to create a measure of religious support, we summed these three items such that higher values indicate higher levels of religious support. We use this measure in two ways: As a baseline between-individual measure occurring at wave one only and as a within-individual change measure occurring at waves two, three, and four. As explained in greater detail in the analytic strategy section, although prior work demonstrates that incarcerated individuals report high levels of religious support during incarceration (O’Connor and Duncan 2011) and religious support during release has been shown to relate to positive reentry outcomes, it is unclear how baseline, wave one measures of religious support condition the effect of post-release religious support on substance use and offending.

The level 1 within-individual measure of religious support has a mean of 1.550, standard deviation of .964, and range from 0 (very low religious support) to 3 (very high religious

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<sup>2</sup>We also estimated models using non-weighted substance use measures. The substantive results of the models were similar to the weighted models we present.

support). The within-individual standard deviation is .390, demonstrating variation in this construct across time. The level 2 between-individual measure of baseline religious support has a mean of 1.402, a standard deviation of .920, and ranges from 0 (very low religious support) to 3 (very high religious support).

### Time Variant Control Measures

Based on prior literature, we control for a variety of time variant measures. As up front cognitive shifts have been shown to relate to recidivism (Giordano et al. 2008), we use three separate items that capture behavioral attitudes concerning the individual's outlook on life and future. First, to capture beliefs about the future, respondents were asked if they believed their future would be cut short, and could respond along a four-point scale (not at all = 1, a little bit = 2, moderately = 3, quite a bit = 4). Responses were coded so that higher values represent more negative views about the future. This measure – called *future short* in Table 1 —has an overall mean of 1.432, an overall standard deviation of .884, and ranges from 1 (very positive outlook) to 4 (very negative outlook). The within-individual standard deviation is .517, which captures the variation of this measure across time.

The second measure asked respondents if they felt that people could not be trusted. Responses were captured using a five-point ordinal scale (not at all = 1, a little bit = 2, moderately = 3, quite a bit = 4, and extremely = 5). Responses were coded so that higher values related to lower levels of trust in people. This measure, called *no trust*, has a mean of 1.992, standard deviation of 1.288, and ranges from 1 (very high levels of trust in people) to 5 (no trust in people). The within-individual standard deviation is .723.

The third, and final measure of behavioral attitudes asked respondents if they felt *self-conscious* and possible responses ranged along a five-point scale (not at all = 1, a little bit = 2, moderately = 3, quite a bit = 4, and extremely = 5). This measure has an overall mean of 1.365, an overall standard deviation of .785, and ranges from 1 (not self-conscious) to 5 (extremely self-conscious). The within-individual standard deviation is .472.

Research has also demonstrated that employment (Bahr et al. 2010) and family support (Shapiro and Schwartz 2001) are important factors within the reentry process. To account for *family support*, we draw from three measures used in prior research (Mowen and Visher 2015) asking the respondent if they: feel close to their family; want their family involved in their life; and consider themselves a source of support for their family. Respondents could answer along a 4-point scale (strongly agree = 3, agree = 2, disagree = 1, strongly disagree = 0), and responses were summed to create a scale with higher values indicating more family support. This measure has a mean of 7.097, an overall standard deviation of 1.660, and ranges from 0 (no support) to 9 (very high support). The time variant standard deviation is .911, indicating change across time within-individuals. The averaged alpha across all waves is .780, indicating an acceptable level of inter-item reliability (Cronbach 1951). To capture *employment*, respondents were asked if they were legally employed at each wave (employed = 1, not employed = 0). The overall mean is .663 with a standard deviation of .472. As individuals could report being employed in one wave and not another, the within-individual standard deviation is .389.



## Time Invariant Control Measures

In addition to the time variant control measures, we control for a variety of time invariant measures. First, we control for pre-incarceration levels of both criminal offending and substance use (the method allowing us to do so is discussed at length in subsequent sections). *Lagged substance use* is comprised of identical measures as the dependent variable asking the respondent if they had used any of the substances prior to incarceration. Like the dependent measure of post-release substance use, we use weights and the natural logarithm due to skew in the data. This measure has a mean of 1.273, a standard deviation of .559, and ranges from 0 to 2.485. Similarly *lagged criminal offending* is comprised of the same measures used in the dependent measure, but asked respondents about offending they committed prior to incarceration. This measure has a mean of 2.119, a standard deviation of 1.236, and ranges from 0 to 3.515.

Prior research demonstrates that reentry outcomes vary by race (Wehrman 2010), marital status, and age (Travis 2005). To account for race, we created binary variables indicating that the respondent was *Black* (53.1%) or *Other Race* (12.4%) in contrast to *White* (34.5%). To account for marital status, we use a variable indicating that the respondent was *single* (72.7%) or *divorced* (16.5%) in contrast to *married* (10.8%) at wave one. We note that this measure could be time variant, but marital status changes across time were relatively rare with the vast majority of individuals remaining in the same category. We also include a variable indicating that *age* of the respondent in years at wave one. This measure has a mean of 29.469, a standard deviation of 7.291, and ranges from 18 to 69 years.

As prior experiences with the criminal justice system might relate to experiences across time (Visher and Travis 2003), we include a number of measures capturing prior experiences with the criminal justice system. First, we include a variable indicating the total number of *prior convictions* the respondent reported. Because this measure is highly skewed, we use the natural logarithm. The mean of this measure is 1.598 and has a standard deviation of .735 and a range from 0 to 4.449. We also include a measure capturing the total number of days the respondent was incarcerated for their current term of incarceration.<sup>3</sup> Again, due to the skew in this measure we use the natural logarithm. This measure has a mean of 6.479, standard deviation of .887, and ranges from 0 to 9.158. Finally, we include controls capturing the respondent's primary conviction type. From a short list, respondents were asked to identify their conviction offense for their current term of incarceration. Individuals who indicated they were incarcerated for robbery, assault, or murder were coded as having been incarcerated for a *violent offense* (17.2%); drug dealing and drug possession were coded as *drug offense* (21.0%); burglary, property theft, forgery, fraud and vehicle theft were coded as *property offense* (11.5%). Individuals who committed a sexual crime were coded as *sexual offending* (5.0%). In the analysis, we withhold respondents who committed any *other offense* as the contrast group (45.3%).<sup>4</sup>

<sup>3</sup>This measure includes the entire length of the current incarceration period irrespective of the number of sentences being served. It does not account for the total amount of time in which the individual has been incarcerated over their entire life (e.g., a prior term of incarceration).

<sup>4</sup>SVORI researchers asked respondents if they were incarcerated for "some other offense" not included in this list of items.

Finally, as the goal of SVORI was to determine differences in reentry outcomes between those who received enhanced reentry programming and those who did not (Lattimore and Visser 2009), we include 12 items capturing enhanced reentry services (see Visser et al. 2017). These 12 questions asked individuals (yes or no) whether or not they received *employment services* (30.8% = yes), *personal relationship assistance* (22.5% = yes), *life skills assistance* (31.9% = yes), *criminal attitude training* (46.5% = yes), *anger management programming* (32.9% = yes), *educational training* (48.9% = yes), *treatment for drugs or alcohol* (42.9% = yes), *treatment for emotional problems* (17.9% = yes), *reentry planning* (42.1% = yes), *programs/classes for reentry* (55.4% = yes), whether or not they *met with a case manager* (55.1% = yes), or *received needs assessment* (54.9% = yes) prior to release. Individuals who answered yes were coded as '1' in contrast to those who responded no, who were coded as '0.'

### Missing Data

As with all large longitudinal data sets, there are missing data in the SVORI data set. Of the original sample of 1697 men, we use data from 962, representing an attrition rate of approximately 43%. Although this represents a large amount of missing data, sample attrition in the SVORI dataset has been well documented and investigated by a variety of sources. For example, the federally-funded evaluation lead by the Urban institute (Lattimore and Steffey 2010) has shown that respondents present at wave one are not significantly different from respondents at wave four across a whole host of measures. Additionally, prior work using the SVORI data has shown that data are missing at random (see Stansfield et al. 2017a; Wallace et al. 2016). However, to ensure missing data was not significantly altering our findings, we performed a sensitivity analysis (Brame and Paternoster 2003) and estimated a series of *t*-tests comparing missing and not missing cases across each measure in the study. These tests failed to reach significance demonstrating no significant differences across missing data supporting prior reports and studies.

To perform an additional test, we imputed all missing data using full-information maximum likelihood imputation (see Moral-Benito et al. 2016). Substantive results using the full imputed sample of 1697 respondents were substantively similar to the results of the models we present. Given the results of these tests as well as prior work (Lattimore and Steffey 2010; Stansfield et al. 2017a; Wallace et al. 2016), we confirm that although missing data are a noted issue in the SVORI sample, our results are robust to sample attrition.

### Analytic Strategy

Although there are a variety of methods suitable for longitudinal data analysis, we employ a cross-lagged dynamic panel model to overcome two specific limitations to existing research as well limitations inherent in traditional mixed- and fixed-effects models. First, it is well established that "one of the best predictors of what happens at time *t* is what happened at time *t* - 1" (Allison 2015, p. 1). However, the inclusion of a lagged outcome variable in a fixed- (Williams et al. 2016) or mixed-effects model "leads to severe bias" (Allison 2015, p. 1) due to violations of the basic regression assumption of independence among error terms. The cross-lagged dynamic panel model is able to overcome this limitation and, as a result, is capable of controlling for lagged measures of the outcome without introducing bias or

violations into the equation's estimation. Specifically, the cross-lagged dynamic panel model can control for prior markers of the dependent variable by using a series of progressive chained equations where the lagged outcome ( $t - 1$ ) shares a pathway with each progressive ( $t$ ) outcome while still satisfying the assumption of error independence. Given the importance of controlling for prior behavior to examine future behavior, the cross-lagged dynamic panel model represents a valuable tool that overcomes a basic, fundamental shortcoming of traditional fixed and mixed models.

Second, because we can provide a much more nuanced portrait of the effect of religious support on recidivism by using two distinct measures of religious support; baseline between-individual differences during incarceration and within-individual changes in support across time. That is, although prior work has shown that religious support affects reentry outcomes, this same body of research has failed to consider whether the primary motivator is religious support during incarceration (a between-individual, time invariant measure), changes in religious support post-release (a within-individual, time variant measure), or some combination of the two. The cross-lagged dynamic approach overcomes this limitation because it combines the unique advantages of both mixed- and fixed-effects models by allowing the time-variant measures to be treated as fixed-effects estimates (within-person changes only) and the time-invariant measures to be treated as between-individual differences only within the same equation. Stated differently, a cross-lagged dynamic panel model extends the fixed-effects model by allowing for the inclusion of time invariant, between-individual, predictors (which fixed effects models do not traditionally allow; see Rabe-Hesketh and Skrondal 2012). At the same time, a cross-lagged model extends the capabilities of a mixed-effects model by treating the time variant component as within-individual change only, thus not confounding between-individual differences and within-individual changes in a single variable which can lead to severe estimation bias as occurs in mixed-effects models (Rabe-Hesketh and Skrondal 2012). Thus, the equation for the cross-lagged dynamic panel model is:

$$y_{it} = \lambda y_{it-1} + x_{it}\beta + w_i\delta + \alpha_i + \varepsilon_t + v_{it}$$

Within this approach,  $y_{it-1}$  is the lagged outcome for person  $i$  at time  $t$  (e.g., lagged substance use/criminal offending),  $x_{it}$  is a vector of the within-person change of the independent variables (e.g., time variant measures),  $w_i$  is a vector of time invariant exogenous measures (e.g., time invariant measures),  $\delta$  refers to the unit of time (which is constant),  $\alpha_i$  captures the fixed-effect at each wave,  $\varepsilon_t$  represents unobserved similarity across waves, and  $v_{it}$  captures time variant error across respondents in the model.

Given the two significant advantages—the inclusion of the lagged measure of the dependent variable and the ability to model between-individual only and within-individual only effects—we proceed in two ways. First, we present a full model to examine the effect of within-individual changes in religious support post-release concurrent with between-individual baseline differences in religious support on substance use while also controlling for lagged substance use. Second, we introduce interaction terms encompassing between-individual baseline differences in levels of religious support along with within-individual changes in

religious support. This allows us to determine whether baseline levels of religious support are independent of the effect of within-individual changes in religious support on substance use, or if the two interact in their effects on the outcome. Then, we repeat this procedure for our second outcome, criminal offending.

## Results

The results of the cross-lagged dynamic panel model assessing substance use are shown in Table 2. Prior to examining the results, we first note that the model fits the data well. The root mean squared error of approximation (*RMSEA*) is well below the acceptable threshold of .06 while the comparative fit index (*CFI*) is well above the acceptable threshold of .90 (Acock 2013; Williams et al. 2016). The Chi square statistic is not significant which, in the case of structural equation modeling, indicates desirable model fit (see Williams et al. 2016). As such, the model fits the data closely.

As shown by Model 1 in Table 2, the within-individual measure of religious support is significantly related to decreased levels of substance use. That is, within-individual increases in religious support across the post-release waves relate to lower levels of substance use. Yet, the baseline between-individual measure of religious support fails to reach significance, suggesting that levels of religious support during incarceration are not significantly associated with substance use post-release net the effect of the other covariates in the model. The time variant control measures demonstrate that individuals who report lower levels of trust in others report significantly higher levels of substance use than those who report higher levels of trust across time. On the other hand, employment is significantly associated with decreased substance use over time. And while single respondents are more likely to use, changes in feelings of self-consciousness, perspectives about the future, and family support are not significantly associated with substance use during the reentry timeframe.

Turning to the time invariant controls, results demonstrate that Black respondents report significantly lower levels of substance use than White respondents, though we observe no difference between White and Other Race individuals. Age is associated with substance use such that older respondents report significantly lower levels of substance use than younger respondents. Individuals with a greater history of convictions report higher levels of substance use than those with fewer prior convictions. The length of incarceration is negatively and significantly associated with levels of substance use. Interestingly, we observe no significant relationship between lagged substance use (substance use prior to incarceration) and substance use post-release. Results from the SVORI programing variables portion of the equation demonstrate that those who received treatment for mental illness and problems controlling emotions are more likely to use substance use. No other significant program participation effects are observed.

Model two introduces an interaction term capturing the interdependent effect of baseline between-individual levels of religious support and within-individual changes in religious support on substance use post-release. This interaction term fails to reach significance, suggesting that the relationship between changes in religious support and substance use is not moderated by baseline between-individual levels of religious support. Results of the

other measures in the analysis remain consistent with the results from Model 1. Next, we perform a similar analysis exploring criminal offending as the outcome.

Like the cross-lagged model examining substance use, the first model in Table 3 examines criminal offending and fits the data well ( $RMSEA = .019$ ,  $CFI = .971$ ). The Chi square statistic, however, reaches statistical significance. Despite the Chi square suggesting a lack of close fit, Williams et al. (2016) conclude that Chi square values are less preferable to other metrics in assessing model fit for cross-lagged dynamic panel equations because “it may be hard to find any reasonably parsimonious model that yields a  $p$  value greater than .05” (p. 17). In this analysis, the large sample size is likely causing the Chi square statistics to be significant even though the differences are very small.

Results of the full model presented in Model 1 demonstrate that neither within-individual changes nor between-individual differences in religious support are significantly associated with criminal offending post-release. For the time variant control measures, results demonstrate that individuals who are more self-conscious report significant increases in offending across time than those who are less self-conscious. None of the other time variant measures reach statistical significance in the model.

Turning to the time invariant measures, results first demonstrate that lagged criminal offending is significantly associated with criminal offending post-release. Similar to the model examining substance use, we find that age is negatively associated with offending while the number of prior convictions is positively associated with criminal offending. In terms of SVORI programming, two measures reach levels of statistical significance. First, those who were receiving treatment for emotional instability are more likely to report higher levels of offending. Second, persons enrolled in programs and/or classes for reentry success are significantly less likely to offend. No other SVORI programming measures are significant.

In Model 2, we introduce the interaction term capturing within-individual changes and between-individual differences in religious support. Interestingly, although the main effects for each measure failed to reach significance, the *change*  $\times$  *baseline* interaction is statistically significant. The direction demonstrates that high levels of baseline religious support coupled with increases in religious support across time relate to significantly lower levels of offending post-release. The implications of this are now discussed.

## Discussion and Conclusion

The goal of this study was to examine the independent and interdependent roles of baseline between-individual levels of religious support and within-individual changes in religious support in relation to post-release substance use and offending. Prior longitudinal studies linking religion and reentry outcomes, including those using the SVORI data, have used mixed effects multilevel modelling to demonstrate the longitudinal association between religious support with substance use and criminal offending post-release (Stansfield et al. 2017a, b). This approach, however, focuses on post-release religious support, without being able to ascertain the importance of pre-release religious support. This left unanswered

whether post-release religion, or “current reward,” can help increase rehabilitation without establishing (or re-establishing for those with a spiritual or religious history prior to arrest and incarceration) religion as a source of support prior to release. It also ignores the theoretical importance of both, reflecting a continuing journey of faith.

Results of cross-lagged dynamic panel models yield mixed-support for our hypotheses. The first hypothesis, that baseline between-individual levels of religious support would independently relate to decreased levels of substance use and criminal offending, is not supported. The baseline measure of religious support did not independently relate to either outcome in our models. While most incarcerated individuals are believed to attend humanist, spiritual, or religious based services for intrinsic reasons to help make sense of their world (O’Connor and Duncan 2011), those who are most isolated may have a more extrinsic orientation towards services (Dammer 2002). With such wide variation in motivation, baseline religiosity by itself may not always mean personal, cognitive, or social transformation. This finding is not meant to downplay the many important roles played by religious practice in prisons. Many scholars have explored the impact of religious practice and participation in prison, noting how individuals derive hope, meaning, peace of mind, and a spiritual pathway for their post-prison life, while buffering the dehumanization that can occur within the prison context (Maruna et al. 2006; O’Connor and Duncan 2011; Roman et al. 2007). But given the changing nature of the challenges and structural impediments to reentry, scholars also need to continue to help discover the best ways that faith-based programs can provide ongoing support to individuals who look to their faith for support.

The second hypothesis, which premised that within-individual changes would relate to lower levels of substance use and criminal offending, received mixed support. Results demonstrated that within-individual increases in religious support related to significantly lower levels of substance use, but we observed no significant effect of within-individual changes in religious support on criminal offending. Recall the link between religion and substance use is often thought to be explained by personal development and changes in self-esteem that allow an individual to cope with problems and stressful life events without the use of drugs or alcohol (Chu 2007; Chu et al. 2012). As individuals enter faith-based recovery programs or connect with faith-led volunteers after release from prison, these changes may support coping and meaning making in the face of adversity. In line with theories of identity transformation, social control and desistance from crime, however, turning points away from crime may require a more progressive causal sequence of events that involves changes in one’s social networks and institutional bonds.

The third hypothesis, which presumed that baseline between-individual levels of religious support would further condition the impact of within-individual changes in religious support on substance use and criminal offending, is also partially supported. Although this interaction term did not reach statistical significance for substance use, it did reach significance in the model examining criminal offending. Fowler and Levin’s (1984) stages of faith suggest that individuals journey from a state of sovereign mind, where people tend to be very self-centered, towards a more socialized mind where people rely on an institution (such as a church or religious group) to give them stability. While prison can help people get ‘on-board’ toward a pro-social self and connected to pro-social peers and institutions,



continued strengthening and support is required to continually develop a socialized mind and integrate individuals into the larger social context. And in-turn, pro social relationships and opportunities can be built thereafter, but structural changes in bonds and opportunities are unlikely to lead to desistance without prior personal change (Bushway and Reuter 1997). Thus, the combination of baseline and post-release support may be more reflective of personal transformation, and facilitates an ability to deal with the uncertain and complex demands of life (Kegan 1994).

This study is unique in several ways. Specifically, this study has moved beyond simply asking whether religion works, to consider whether the timing and combination of events matters for substance use and offending post-release. Most studies on religion (however conceptualized) and offender behavior rely on either participation in religion programs during incarceration or changes in religiosity post-release. Being able to separate religiosity during incarceration from religiosity post-release enhances our understanding of how religion matters by advancing the understanding of whether it is baseline between-individual levels of religious support during incarceration, or within-individual changes in levels of religious support post-release, or an interaction among the two, that influence substance use and offending post-release.

On one hand, our findings reveal that it is the ongoing increase and strengthening of religious support post-release that is associated with reduced substance use, as opposed to religious support during incarceration. On the other hand, it is a combination of the two that protect against criminal offending. Broadly, these findings suggest that reentry programs should aim to integrate the individual ways that someone draws strength and support from religion. While this paints a complex portrait, the methodological technique used allows for a more nuanced understanding of the role of religious support during incarceration and post-release.

For criminal offending, results demonstrate that baseline levels of religious support and within-individual changes in religious support do not, by themselves, relate to offending post-release. However, in complicating this, findings reveal that it is the joint combination of the two that protect against offending, even while controlling for offending prior to incarceration. This is an important methodological step in disentangling the role of religious support during reentry as our findings demonstrate that ongoing support post-incarceration feeds off baseline religious support to reduce the likelihood of criminal reoffending. Methodologically, this finding demonstrates that failing to account for how baseline differences in religious support condition the relationship of religious support across time on offending would overlook the importance of religious support in both capacities.

The results of the models together actually suggest that both baseline religious support and religious support post-release are important for the reentry process, even though the specific findings vary depending on the outcome. As a result, these findings carry some important policy implications. Overwhelmingly, prison chaplains and religiously inclined volunteers consider programming with a faith-based component critical to rehabilitating prisoners. A Pew Research Center (2012) survey of state prison chaplains revealed that almost three quarters of chaplains consider access to religion programs in prison critical to success, and

almost 80% consider support from religion after release from prison to be critical for successful reentry and rehabilitation. Until recently, however, the vast majority of studies on the relation between religion and successful reentry have focused on participation in prison fellowship programs and religious study while incarcerated (Jang et al. 2017; Johnson 2004; O'Connor 2004; Young et al. 1995). Comparably little work has been done on the role of faith-based interventions, chaplaincy, or religiosity specifically in the community, after life in an institutional setting.

Although we are unable to examine specific faith-based interventions due to limitations within the SVORI data, our results suggest that for religion to be associated with reduced criminal offending, faith-based interventions in an institutional setting may begin or accelerate the religious or spiritual journey to desistance. In the midst of challenges to religious freedom in the courts over the past decade regarding fears of religious extremism behind bars, this finding speaks to the importance of upholding religious freedom of prisoners in the absence of a very powerful security reason. Based on these data, and other sources (O'Connor and Duncan 2011), the demand for faith-based programs in prison remains high. Critically, however, the support from religion and a faith community should continue after release for individuals who want a faith-based component of their reentry care. Ensuring that reentry programs offer a faith-based component, or programming tailored to an individual's way of making meaning, is critical for sustained reentry success.

Like many community organizations, however, securing funding to be able to provide social support resources is an ongoing concern for faith communities. In many communities, faith-based institutions including halfway housing boast some of the more impressive reentry outcomes, yet successful programs are often forced to close in an effort to contain costs, or because local residents oppose housing of ex-offenders more generally. As supported by the Office of Juvenile Justice and Delinquency Prevention (Office of Justice Programs 2011), more initiatives may be warranted to help organizations, especially in the poorest areas, write grants and compete for federal and state funds. And while there is some unease with the state providing funding for faith programs, the state must remain neutral to the individual ways people make meaning in their lives.

Despite the contributions of this project, there are some important limitations to consider. While the study is able to tease out the importance of religious support both during and after incarceration, the data prevent us from understanding the nature of the support and assistance an offender receives. Most of the direct influence of religious support in prisons is likely to come from religious programs administered by chaplains and pastoral care. Nevertheless, the specific religious groups will vary across prisons and states as the United States continues to diversify with different faith groups (Dammer 2002). As an example, our study is unable to differentiate the importance between faith-informed counseling or religious interventions and more secular programs, including yoga and transcendental meditation. As previously incarcerated individuals return to their communities, religious personnel also often assist in the search for employment and rebuilding of personal relationships. While unpacking this variation should be a focus for future research, we nevertheless emphasize that religion seems to be beneficial not just because of a specific

program, but rather because of the overarching support provided in an accepting, understanding, and non-judgmental manner.

There is also a conceptual limitation in our definition of religious support. Our measure focused on both the internal support and strength someone derives from their relationship with God and religion, in addition to the tangible external support received via religious personnel and programs. These two sources of support appear to work together in a mutually reinforcing way (Zwingman et al. 2011). There are arguably other sources of support not included. Behavioral measures of religion, including church attendance and participation in religious service, may provide much in the way of interaction and socializing. Furthermore, as Hlavka et al. (2015) demonstrated, peer relationships are routinely established within services and faith-based programs. While future research may try to tease out the importance of this relational component of religion, our conceptual focus for the current study was specifically on support derived from the individual relationship one has with religion and religious leaders both during and after incarceration.

There are also important limitations within the SVORI data. The sample is comprised of serious and violent offenders and therefore may not be generalizable to broader samples. Additionally, our analysis includes only men and, because reentry experiences differ for women (Heidemann et al. 2014), future research should investigate the role of religious support during incarceration and post-release among female offenders. There are also a wide variety of crimes that are not included in the outcome of self-reported offending, meaning that the variability of this outcome could have been limited. In a related vein, despite the SVORI sample loosely reflecting the larger trends of the incarcerated population of the United States in the early- and mid-2000s (e.g., Harrison and Beck 2006; Lattimore and Visser 2009), the data did only come from 14 states and, as such, may lack generalizability. Finally, despite assessing the role of religious support on substance use and criminal offending across time, we are limited to exploring these outcomes to 15-month post-release. Prior work has shown that the effect of religion on desistance declines in strength across time (Giordano et al. 2008), and it is possible that religious support may become less important past this study's timeframe.

In light of the number of studies that have failed to find an association between religious support and reductions in criminal recidivism, our additional finding that the combination of religion during incarceration and within-individual change after release is associated with reduced criminal recidivism is significant. Given the complexity associated with religiosity, researchers, practitioners, and policy-makers alike must consider the role of faith-based programming both during and post-incarceration. Together, the findings offer encouragement for those involved in the work of providing religious support to ex-offenders in the community, reaffirming that supporting the work of faith community reintegration and the provision of social support should not go overlooked. A wealth of research now recognizes the efficacy of tailoring programs to an entire person to create optimal matches in reentry programming (Norcross and Wampold 2011; Worthington et al. 2011), and results of this study demonstrate it is highly useful to consider the important role of religious support provided to previous offenders as they work to reintegrate back into their communities.

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**Table 1**Summary statistics of the SVORI data ( $n = 962$ )

Variable	Mean	SD	Range	SD within-individuals	SD between-individuals
Dependent measures					
Substance use	0.925	0.670	0–2.485	0.530	0.418
Criminal offending	1.288	1.394	0–3.515	1.032	0.945
Independent variables					
Religious support (change)	1.550	0.964	0–3	0.390	0.875
Religious support (baseline)	1.402	0.920	0–3	–	–
Time variant control measures					
Self-conscious	1.365	0.786	1–5	0.472	0.630
No trust	1.992	1.288	1–5	0.723	1.078
Future short	1.432	0.884	1–4	0.517	0.674
Family support	7.097	1.662	0–9	1.444	0.911
Employment	0.663	0.472	0, 1	0.389	0.292
Time invariant control measures					
Lagged substance use	1.273	0.559	0–2.485	–	–
Lagged criminal offending	2.119	1.236	0–3.515	–	–
Race					
White	0.345	0.475	0, 1	–	–
Black	0.531	0.499	0, 1	–	–
Other	0.124	0.330	0, 1	–	–
Marital status					
Married	0.108	0.310	0, 1	–	–
Single	0.727	0.445	0, 1	–	–
Divorced	0.165	0.371	0, 1	–	–
Age	29.469	7.291	18–69	–	–
Prior convictions	1.598	0.735	0–4.499	–	–
Length of incarceration	6.479	0.887	0–9.158	–	–
Primary conviction					
Drug offense	0.211	0.408	0, 1	–	–
Property offense	0.134	0.341	0, 1	–	–
Violent offense	0.172	0.377	0, 1	–	–
Sexual offense	0.050	0.218	0, 1	–	–
Other offense	0.435	0.496	0, 1	–	–
SVORI programming participation					
Employment services	0.308	0.462	0, 1	–	–
Personal relationship assistance	0.225	0.417	0, 1	–	–
Life skills assistance	0.319	0.466	0, 1	–	–
Criminal attitude training	0.465	0.499	0, 1	–	–
Anger management programming	0.329	0.470	0, 1	–	–
Educational assistance training	0.489	0.500	0, 1	–	–

Variable	Mean	SD	Range	SD within-individuals	SD between-individuals
Treatment for emotional problems	0.179	0.383	0, 1	–	–
Treatment for drugs or alcohol	0.429	0.495	0, 1	–	–
Programs/classes for reentry	0.554	0.497	0, 1	–	–
Reentry planning	0.421	0.494	0, 1	–	–
Received needs assessment	0.549	0.498	0, 1	–	–
Met with case manager	0.551	0.498	0, 1	–	–

*SVORI* serious and violent offender reentry initiative, *n* sample size, SD standard deviation

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**Table 2**Cross-lagged dynamic panel model assessing substance use post-release ( $n = 962$ )

Variable	Coef.	SE	Coef.	SE
Independent variables				
Religious support (change)	-0.043	0.021 <sup>*</sup>	-0.042	0.020 <sup>*</sup>
Religious support (baseline)	0.001	0.015	0.001	0.015
Change × baseline interaction	-	-	-0.013	0.025
Time variant control measures				
Self-conscious	0.027	0.032	0.026	0.032
No trust	0.090	0.028 <sup>**</sup>	0.091	0.028 <sup>**</sup>
Future short	0.037	0.034	0.037	0.034
Family support	-0.007	0.010	-0.006	0.010
Employment	-0.084	0.029 <sup>**</sup>	-0.085	0.029 <sup>**</sup>
Marital status				
Single	0.083	0.035 <sup>*</sup>	0.083	0.035 <sup>*</sup>
Divorced	0.014	0.048	0.015	0.048
Time invariant control measures				
Lagged substance use	0.009	0.024	0.009	0.024
Race				
Black	-0.060	0.027 <sup>*</sup>	-0.066	0.029 <sup>*</sup>
Other	-0.029	0.036	-0.033	0.036
Age	-0.004	0.001 <sup>*</sup>	-0.004	0.001 <sup>*</sup>
Prior convictions	0.094	0.015 <sup>***</sup>	0.095	0.016 <sup>***</sup>
Length of incarceration	-0.027	0.013 <sup>*</sup>	-0.027	0.013 <sup>*</sup>
Primary conviction				
Drug offense	0.025	0.029	0.023	0.029
Property offense	0.062	0.035	0.061	0.035
Violent offense	0.023	0.030	0.023	0.030
Sexual offense	-0.067	0.051	-0.065	0.051
SVORI programming participation				
Employment services	-0.010	0.027	-0.009	0.027
Personal relationship assistance	0.058	0.031	0.055	0.031
Life skills assistance	0.018	0.029	0.020	0.030
Criminal attitude training	-0.026	0.029	-0.027	0.029
Anger management programming	-0.046	0.026	-0.045	0.027
Educational assistance training	0.009	0.023	0.007	0.023
Treatment for emotional problems	0.105	0.030 <sup>***</sup>	0.106	0.030 <sup>***</sup>
Treatment for drugs or alcohol	0.025	0.024	0.025	0.024
Programs/classes for reentry	-0.035	0.025	-0.036	0.025
Reentry planning	-0.023	0.025	-0.022	0.025
Received needs assessment	-0.015	0.026	-0.015	0.026

Variable	Coef.	SE	Coef.	SE
Met with case manager	0.027	0.026	0.027	0.026
$\chi^2$ (Model vs. saturated)	78.757		80.557	
RMSEA/CFI	0.015/0.986		0.015/0.986	

*SVORI* serious and violent offender reentry initiative, *n* sample size, *SE* standard error, *RMSEA* root mean squared error of approximation, *CFI* comparative fit index

\* *p* .05,

\*\* *p* .01,

\*\*\* *p* .001

**Table 3**Cross-lagged dynamic panel model assessing criminal offending post-release ( $n = 962$ )

Variable	Coef.	SE	Coef.	SE
Independent measures				
Religious support (change)	- 0.037	0.071	- 0.031	0.071
Religious support (baseline)	- 0.054	0.046	- 0.058	0.047
Change $\times$ baseline interaction	-	-	- 0.162	0.082 <sup>*</sup>
Time variant control measures				
Self-conscious	0.254	0.108 <sup>*</sup>	0.255	0.198 <sup>*</sup>
No trust	0.103	0.097	0.109	0.097
Future short	0.208	0.115	0.212	0.115
Family support	- 0.018	0.035	- 0.017	0.035
Employment	- 0.054	0.099	- 0.059	0.099
Time invariant control measures				
Lagged criminal offending	0.069	0.030 <sup>*</sup>	0.069	0.030 <sup>*</sup>
Race				
Black	- 0.054	0.077	- 0.056	0.085
Other	- 0.023	0.102	- 0.029	0.106
Marital status				
Single	0.015	0.102	0.012	0.104
Divorced	- 0.156	0.137	- 0.153	0.139
Age	- 0.025	0.005 <sup>***</sup>	- 0.025	0.005 <sup>***</sup>
Prior convictions	0.168	0.046 <sup>***</sup>	0.169	0.046 <sup>***</sup>
Length of incarceration	- 0.019	0.039	- 0.023	0.040
Primary conviction				
Drug offense	- 0.005	0.083	- 0.007	0.084
Property offense	0.158	0.095	0.148	0.097
Violent offense	0.003	0.086	- 0.001	0.088
Sexual offense	- 0.148	0.147	- 0.116	0.151
SVORI programming participation				
Employment services	- 0.011	0.076	- 0.004	0.078
Personal relationship assistance	- 0.042	0.088	- 0.075	0.091
Life skills assistance	0.009	0.084	0.015	0.086
Criminal attitude training	0.009	0.082	0.004	0.083
Anger management programming	- 0.024	0.076	- 0.010	0.077
Educational assistance training	0.007	0.067	0.002	0.068
Treatment for emotional problems	0.241	0.090 <sup>**</sup>	0.257	0.091 <sup>**</sup>
Treatment for drugs or alcohol	0.035	0.069	0.044	0.071
Programs/classes for reentry	- 0.163	0.072 <sup>*</sup>	- 0.178	0.073 <sup>*</sup>
Reentry planning	- 0.090	0.072	- 0.080	0.074
Received needs assessment	0.149	0.074	0.145	0.076



Variable	Coef.	SE	Coef.	SE
Met with case manager	- 0.038	0.073	- 0.034	0.075
$\chi^2$ (Model vs. saturated)	86.686*		88.116*	
RMSEA/CFI	0.019/0.971		0.018/0.972	

*SVORI* serious and violent offender reentry initiative, *n* sample size, *SE* standard error, *RMSEA* root mean squared error of approximation, *CFI* comparative fit index

\* *p* .05,

\*\* *p* .01,

\*\*\* *p* .001

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