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EMPIRICAL RESEARCH

A Developmental Perspective on Reentry: Understanding the Causes and Consequences of Family Conflict and Peer Delinquency during Adolescence and Emerging Adulthood

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Abstract Despite the uniqueness of an incarceration experience for adolescents, there remains a shortage of research on adolescents and emerging adults who have been recently released from detention centers and are returning home during the transitional time period of "reentry". Drawing from the developmental literature, the current study uses a diverse (54% Black, 20% White, 26% Other Race) longitudinal survey of 337 male adolescents living in the United States to examine the interrelationships among crime, substance use, family conflict, and peer delinquency. A series of cross-lagged dynamic panel data models using four waves of data demonstrate that while family conflict and peer delinquency relate to increased offending and substance use, conflict in the family is a major driving force behind both future family conflict and peer delinquency. Overall, findings suggest that family conflict is an overlooked, but absolutely critical, factor in explaining deviance and deviant peer associations alike for adolescents and emerging adults who have been recently incarcerated and released.

Keywords Youth reentry · Family conflict · Peer delinquency · Longitudinal modeling · Differential association

Introduction

The time of transition from early adolescence to emerging adulthood is marked by a number of natural, but often challenging, changes. Among the difficulties faced by youth during these crucial years of development is the fact that delinquency and substance use—both relatively normal behaviors during these developmental periods (Moffitt 1993)—are being met with increasingly severe penalties (Mauer 2001). The most serious of adolescent offenders will be placed into residential facilities that are designed to redirect the youth's behavior to a more normative path. Considering the majority of these adolescents will be held in residential facilities for a relatively short amount of time (the average is 61 days; see OJJDP 2017a), most who are incarcerated during adolescence will be released from residential placement in the same developmental stage they were in when they were first incarcerated. The period immediately following release when an adolescent returns home—referred to as "reentry" (Travis 2005)—presents a tremendous number of new challenges, including creating post-incarceration identities (Western et al. 2015) and reestablishing ties with family and peer groups (Mears and Travis 2004).

Developing a more advanced understanding of the factors which might promote positive reentry outcomes is paramount, especially considering that rates of substance use and offending among incarcerated and youth in residential placement programs is significantly higher than the general population (Sedlak and McPherson 2010). A 2010 report demonstrated that 74% of incarcerated youth report having used alcohol, 84% marijuana, and 50% other illicit substances (Sedlak and McPherson 2010). In light of these trends, it is perhaps unsurprising that research has found that youth who experience contact with the criminal justice

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system earlier in life are placed at a significantly higher risk of persistence in offending and future contact with the criminal justice system (Loeber et al. 2003). Thus, the juvenile justice system is an institution with great potential to affect outcomes across various stages of adolescent development. Unfortunately, the system has struggled in this capacity as only 20% of programs in the Model Programs Guide were classified as being "effective" (OJJDP 2017b).

Despite understanding these general trends about youth reentry, surprisingly little—in fact, almost nothing—is known about how social relationships may impact the reentry process among adolescents. Instead, nearly the entirety of the research on the role of peers and family during reentry has focused on adults (e.g., Boman and Mowen 2017). Due to established differences in cognition (e.g., Steinberg 2005), decision-making (Caffuman and Steinberg 2000), and susceptibility to social influence (e.g., Gardner and Steinberg 2005) between adolescents and adults, it would be far too presumptuous to think that findings from adults experiencing the reentry process are transposable to adolescents. However, beginning this discussion is imperative considering that 85% of all adolescents who are placed into residential treatment will be re-incarcerated within 5 years (Trulson et al. 2005), and about half of youth who reenter will quickly return to juvenile corrections supervision (Lipsey 1999). Developing an understanding of the mechanisms that might prevent youth from returning to residential treatment or prison would set the stage for previously incarcerated adolescents to develop in healthy ways as they transition into emerging adulthood and beyond.

Although there are many places where this research might begin, perhaps the most obvious concerns the two foundational domains of family and peers. With strong theoretical backing and empirical support, research on adolescent development has repeatedly demonstrated that family conflict (e.g., Yuen et al. 2017) and peer deviance (e.g., Osgood and Anderson 2004) increase deviant and criminal behavior among adolescents. Due to the established importance of family conflict and peer deviance, researchers have sought to explore the antecedents of each factor. We understand that family conflict can be incited by a number of factors such as incarceration (Aaron and Dallaire 2010), symptoms of problematic internalizing and externalizing behaviors (Yuen et al. 2017), and turmoil within the family (Formoso et al. 2000). In a similar light, peer pressure (e.g., Farrell et al. 2017), network centrality (e.g., McGloin and Shermer 2009), and delinquent enmeshment (Haynie 2002) are established as important causes of developing delinquent peers. While this knowledge provides an excellent foundation through which to think about deviant behavior and its precursors in adolescence, scientists studying both development and crime must begin to engage these same issues for those in the developmental period of adolescence who are undergoing the reentry process.

Using a developmentally-informed interpretation of two theories of crime which centrally focus on family conflict and peer criminality and a panel dataset containing 337 adolescent males, the purpose of this study is twofold. Using a series of cross-lagged dynamic panel models, we begin the discussion on youth reentry in the developmental context by first examining how family conflict and delinquent peer associations relate to substance use and reoffending during reentry. This analysis will set the stage for a preliminary understanding of the means through which family conflict and peer deviance impact reentry outcomes. Although important in its own right, this research question only begins to create a developmental understanding of the meaning of families and peers for youth who are returning home from incarceration. In order to more comprehensively integrate the adolescent reentry issue into the developmental and life-course paradigm, our second research question asks what specific mechanisms impact family conflict and delinquent peer associations for youth undergoing the reentry process. Overall, it is our hope that this study will demonstrate the importance and applicability of youth reentry to the developmental sciences by helping to create a model through which to understand the meaning of reentry on the larger process of adolescent development.

Theoretical Orientation

Nearly a century ago, Shaw (1930) published a study on the life-course that soundly demonstrated that the behavior of peers was instrumental for offending. Since then, theories (e.g., Burgess and Akers 1966) and research (e.g., DeLay et al. 2016) have further developed and have produced a rich knowledge on how, when, and why peers are influential for crime. In the midst of these various contributions, however, Sutherland's (1947) differential association theory stands out. As a sociological explanation for crime, deviance, and substance use, Sutherland premised that a person's criminal behavior would fluctuate based on whether or not his or her definitions were favorable to crime. A person's definitions in the theory are said to be formed by contact with differential associates, or people who a person values. Building on Shaw's (1930) work, researchers were quick to pick up on the fact that one of the most—and, in adolescence, likely *the* most (Steinberg and Monahan 2007)—meaningful differential associates are peers.

Differential association theory has received an overwhelming amount of support (see Pratt et al. 2010). Because peers are the most important social influence for a person between late childhood and early adulthood (e.g.,

Buhrmester 1996), we understand that adolescents' behaviors are particularly susceptible to the behavioral patterns of their friends. Given this knowledge, researchers have increasingly sought to understand why peers exert influence on behavior during adolescence. We now understand that nearly all adolescents have deviant and non-deviant friends (Haynie 2002). However, the extent to which these friends transmit signals of normative or deviant behavior varies across the extent to which peers approve of substance use and deviance (Trucco et al. 2011), the timing of puberty (Westling et al. 2008), and an adolescent's level of self-control (Hay and Meldrum 2016). Collectively, much of the knowledge that researchers have gained on peers and crime has derived from Sutherland's (1947) differential association theory, meaning the theory has had a tremendous impact on our historic and extant understanding of the importance of peers.

Also incorporating elements of differential association theory, differential coercion and social support (DCSS) theory focuses more on the coercive aspects of crime and deviance. Colvin and colleagues (2002) draw from the work of Patterson (1982, 1990) and note that "aversive family interchanges" (p. 20) serve as one of the most prominent sources of coercion. Children with high levels of family conflict, Colvin and colleagues argue, offend earlier in life, tend to offend more frequently and severely, and are likely to continue to offend as they transition into young adulthood. For youth, the presence of conflict with their family members is particularly important as the vast majority of youth cannot legally escape these conflictual relationships even though family conflict and interpersonal coercion tends to "constitute the most aversive and negative forces individuals encounter" (Colvin et al. 2002, p. 22). In sum, conflict within the family—as a coercive force—has significant bearing on adolescent development and particularly for delinquency.

In addition to a strong theoretical connection to delinquency and adolescent development, prior research has also empirically established that family conflict is a significant source of offending for youth. In a meta-analysis that examined how specific family factors relate to delinquency, Loeber and Stothamer-Loeber (1986) found broad support for the notion that family conflict was a significant marker for delinquency. Noting this (p. 122), they find that familial relations among delinquent youth were marked with "negative perceptions between children and parents" and that the parent-child relationship was characterized by negativity and conflict among more serious offenders. In one of the most widely cited studies on family relationships and delinquency, Cernkovich and Giordano (1987) demonstrate that family conflict is significantly associated with delinquency as well. Although the effect was greater for females than males, the results suggest that conflictual family relationships may inhibit and restrict prosocial and positive attachments between child and parent. More recent research has also found a strong link between the presence of family conflict and offending among adolescents (e.g., Aaron and Dallaire 2010). Placed within a developmental framework, coercive family processes can significantly impact adolescent development.

Family Conflict within the Developmental Context

Developmental researchers have long recognized that family conflict is associated with a number of deleterious outcomes beyond delinquency and offending. These negative outcomes can be broadly categorized as issues of externalization (such as aggression and antisocial behavior) or internalization (such as depression and low self-esteem). Toward the former, prior research has documented that family conflict is significantly associated with conduct issues and delinquency (Conger and Elder 1994), aggression, and other antisocial behavior (Formoso et al. 2000). Toward the latter, family conflict has been shown to significantly relate to elevated levels of depression, anxiety (Wadsworth and Compas 2002), and low self-esteem among youth (Barrera et al. 1995). While alarming on their own, these negative correlates have significant implications for adolescent development. To this point, Wadsworth and Compas (2002) found that youth who experience family conflict tend to cope with conflictual family relationships through a negative means because they lack prosocial coping mechanisms. In particular, adolescents are likely to use avoidance rather than cognitively-based coping such as problem solving (see also O'Brien et al. 1997). As Wadsworth and Compas (p. 266) argue, family conflict causes a "dampening effect" across adolescents as high levels of conflict are linked to a variety of negative developmental outcomes.

Extant research vividly demonstrates that family conflict creates negative mental health outcomes during reentry (Wallace et al. 2016), interrupts family processes between the parent and child (Aaron and Dallaire 2010), and collectively places individuals at risk for reoffending (Mowen and Visher 2015). Joining these findings with research demonstrating the negative developmental outcomes associated with family conflict among non-incarcerated populations of adolescents (Conger and Elder 1994), all evidence suggests that family conflict is likely to produce a variety of negative outcomes among youth undergoing reentry. To formulate a more comprehensive understanding of the meaning of family conflict for returning youth, researchers must engage a developmentally-informed viewpoint of youth reentry that moves beyond conceptualizing the reentry process in terms of raw behavioral outcomes (e.g., reoffending and substance use). Instead, we must begin to

dissect how various processes produce and/or impact family outcomes like conflict during the reentry process. Accordingly, in addition to being an important correlate of offending and substance use, family conflict is a meaningful dependent variable in its own respect and worthy of central focus for returning adolescents.

Peers within the Developmental Context

Due to the established importance of peer deviance on criminal behavior during all stages of adolescence and emerging adulthood (e.g., Warr 2002), researchers have investigated developmental outcomes other than crime which are produced by having deviant peers. For instance, peer deviance (and particularly peer substance use; Giordano et al. 2010; cf. Boman et al. 2013) are becoming increasingly established as causes of conflict within friendships (Kandel and Davies 1991). Peer deviance has also been found to cause or contribute to intimate partner violence (Cochran et al. 2017), being rejected by one's peers (Battin et al. 1998), and high risk sexual behaviors (Lansford et al. 2014). Building on this work, scholars investigating peer group-based programming have discovered that deviance can develop within peer networks during program administration in a way which undermines the program's message (Dishion and Tipsord 2011). This is true of programming in a wide range of social settings (Gifford-Smith et al. 2005). In short, it is clear that deviant peers contribute to a slew of harmful consequences that carry the risk of negatively impacting adolescent development.

In a synthesis of 13 qualitative studies (including several dissertations) on the roles of peers during the reentry process, Martinez and Abrams (2013, pp. 175–180) demonstrate that returning people "walk a fine line" with deviant peer friendships. In support of decades of research on peers and deviance (Pratt et al. 2010), Martinez and Abrams suggest that peers are primarily criminogenic in the roles they play during the reentry process. Their insightful conclusions highlight two significant shortcomings of existing research on adolescent reentry. First, reentry research has generally failed to examine the influence of peers within a developmental context. Having deviant peers in adolescence is not a one-time event (Haynie 2002). Instead, it is a process that—like many processes in the life-course—has a beginning, a maintenance, and an end. Second, the studies reviewed by Martinez and Abrams (2013) have done nothing to examine the *causes* of delinquent peer associations among youth undergoing reentry. Given the broader and repeated finding that peers are the most important social factor for adolescent offending (see Pratt et al. 2010), treating peer deviance as an outcome is imperative for studies examining youth reentry. Treating peer deviance as the dependent variable is a concrete response to the well-received point that researchers must move beyond the status quo in research and place central focus on the processes and life events that result in delinquent peer associations (Warr 2002). As such, this study treats delinquent peer associations as both a predictor of behavior and an outcome of substantive importance, thereby raising attention to the goals of the current study.

Current Study

Through a developmentally-informed grounding in differential association (Sutherland 1947) and differential coercion and social support (Colvin et al. 2002) theories, this study has two goals. First, given the deleterious outcomes associated with family conflict (e.g., Conger and Elder 1994) and delinquent peer associations (McGloin et al. 2014) on adolescent development more broadly, we seek to examine whether family conflict and peer delinquency incite crime and substance use among youth undergoing the reentry process. Following prior literature on adolescent development outcomes associated with family conflict and peer delinquency, we expect that (Hypothesis 1) increases in family conflict (e.g., Mowen and Visher 2015) and (Hypothesis 2) increases in delinquent peers (e.g., Boman and Mowen 2017) will relate to greater levels of substance use and criminal offending during the challenging time of reentry. Second, toward building a developmentally-grounded perspective on how specific experiences during incarceration and reentry relate to the development of family conflict and delinquent peer associations, we then examine factors that relate to each during reintegration. As criminologists and developmentalists alike have both failed to examine reentry as a unique developmental process for adolescents, we treat these analyses as exploratory.

Methods

Data

Data for this project come from the Serious and Violent Offender Reentry Initiative (SVORI) youth sample (see Lattimore and Visher 2009 for an overview of SVORI). SVORI, a federally-funded initiative, was collected between 2005 and 2007 from individuals across 14 states who were all incarcerated at the time of wave one data collection (Lattimore and Steffey 2010). Although the data contain sub-samples of adult males and females, we use the youth sample only. The youth sample is comprised of 337 male adolescents located in four states (Colorado, Florida, Kansas, and South Carolina). To be included in the SVORI sample, participants were identified as youth (under 18

Table 1 Descriptive statistics of the youth SVORI sample ($n = 337$)

	Mean	S.D.	Range	S.D. within	S.D. between	*n*
Post-release recidivism						
Criminal offending (Logged)^{TV}	1.612	1.397	0–3.515	0.912	0.942	337
Polysubstance use (Logged) ^{TV}	0.513	0.514	0–2.335	0.352	0.430	337
Post-release family and peer measures						
Family conflict ^{TV}	6.348	1.694	3–12	0.938	1.480	289
Delinquent peers ^{TV}	8.748	3.111	4–16	1.454	2.786	284
Pre-release lagged measures						
Criminal offending (Logged)	2.242	1.169	0–3.515	–	–	337
Polysubstance use (Logged)	0.895	0.528	0–2.336	–	–	337
Family conflict	6.660	1.704	3–12	–	–	330
Delinquent peers	2.354	0.921	0–3	–	–	297
Control measures						
Family support post-release ^{TV}	9.746	1.571	3–12	0.891	1.354	289
Family support pre-release	10.523	1.510	3–12	–	–	329
Family incarceration (1 = Yes) ^{TV}	0.783	0.413	0,1	–	–	313
Employment (1 = Yes) ^{TV}	0.418	0.494	0,1	0.306	0.403	291
Race						
Black	0.543	0.498	0,1	–	–	337
White	0.199	0.399	0,1	–	–	337
Other	0.258	0.438	0,1	–	–	337
Age	16.970	1.319	14–22	–	–	337
Length of incarceration (Days)	370.85	227.87	20–1362	–	–	337
Prior convictions (Logged)	1.262	0.616	0.693–5.288	–	–	327
SVORI participant (1 = Yes)	0.451	0.498	0,1	–	–	337

SVORI serious and violent offender reentry initiative, *S.D.* standard deviation, *n* valid cases, *TV* time variant measure

years of age) or "youthful offenders" (those under age 25 and incarcerated under "Youthful Offender" laws). As such, all participants are in the periods of adolescence or emerging adulthood (see Lattimore and Steffey 2010, p. 7). Females were not included in the SVORI data collection.

More broadly, the overall goal of SVORI—sponsored by the National Institute of Justice—was to examine whether or not enhanced reentry programming like participation in anger management and life skills classes, substance abuse treatment, and reentry planning resulted in better reentry outcomes. The five areas where the researchers sought improvement was in housing, education, criminal justice, health, and employment outcomes (Lattimore and Steffey 2010). About half of the respondents in the sample were randomly assigned to receive enhanced SVORI programming relative to the other half who were not SVORI program participants. The SVORI study was subjected to independent ethics board reviews. The project followed all modern ethical standards and guidelines (see Lattimore and Steffey 2010).

The SVORI project contains four distinct waves of panel data. Wave one was collected about 31 days prior to a person's release from the facility (during incarceration). Wave two data were collected about 3 months post-release, wave three about 9 months post-release, and wave four at 15 months post-release. At each wave, respondents were asked a variety of questions encompassing substance use and criminal offending histories, family dynamics, peer relationships, housing/educational outcomes, and mental health that occurred since the prior wave. Demographic information was also collected from each respondent. For this project, we draw data from all four waves, though we focus specifically on waves two, three, and four as the outcome measures in this study could only occur post-incarceration. Descriptive statistics for all measures used are shown in Table 1 (time variant measures are indicated by the notation "TV" in tables).

Post-Release Recidivism

The dependent measures in the first analysis encompass self-reported criminal offending and substance use after release.

Criminal offending

To capture criminal offending, respondents were asked at each wave if they had committed assault, committed battery, carried a weapon, sold illegal drugs, or committed a property crime. At each wave, respondents were asked about each of these activities since the prior interview, and respondents could answer yes (coded as 1) or no (coded as 0). To account for differences in severity of the different behaviors, we applied the severity weights developed by Wolfgang et al. (1985). Following, the responses were summed to create an index of offending. Given the skewness in this measure, we use the log transformation. This measure has an overall mean of 1.671 with a standard deviation of 1.397 and ranges from 0 to 3.515. The between-individual standard deviation is 1.065 relative to the within-individual standard deviation of .942. Overall, 59.2% of the sample reported committing at least one offense post-release.

Polysubstance use

To capture substance use, we rely on questions that asked the respondents if they had used any of the following: marijuana, hallucinogens, cocaine, heroin, inhalants, sedatives, methadone, alcohol, stimulates, opioids, or amphetamines. As some of these substances can be legally prescribed, respondents were asked if they had used any of them without a prescription or in a manner not directed by a physician. Respondents could respond "yes" (coded as 1) or "no" (coded as 0) to whether they had used each substance. As these substances represent much different levels of seriousness, we apply the severity weights developed by Pandina and colleagues (1981) so that more minor substances like alcohol and marijuana are weighted lower than more severe substances like heroin. Given the skewness in this weighted measure, we used the variable's natural logarithm as the dependent variable. This measure, which is actually capturing polysubstance use, has an overall mean of .513, a standard deviation of .514, and ranges from 0 to 2.334. The within-individual standard deviation is .351, reflecting a considerable amount of within-person change across time. Overall, 65.1% of respondents reported using at least one substance post-release.

Post-Release Family and Peer Measures

In our second analysis, the two dependent measures capture family conflict and delinquent peers.

Family conflict

To assess family conflict, we draw from three questions in the SVORI data that capture negative family dynamics. These three measures are identical to measures used in prior research on family conflict during reentry (e.g., Mowen and Visher 2015). The three items, assessed on a four-point Likert-type scale (strongly agree, agree, disagree, strongly disagree) asked respondents the extent to which they: (1) fight a lot with family members, (2) are criticized a lot by their family, and (3) feel like they disappoint their family. To our knowledge, this measure has not been used with adolescents and, therefore, we examined the items through the use of a principal components analysis. Results (not shown) demonstrate unidimensionality based upon consistent factor loadings across each of the three items onto a single factor. We also estimated item response models to ensure that the items were measuring the same latent construct (theta; see de Ayala 2009). These models demonstrated that all three items were contributing to the calculation of theta, therefore validating the scale. Coded so that higher values capture more conflict, items were summed to create a scale capturing family conflict. This measure has an overall mean of 9.745, an overall standard deviation of 1.571, and ranges from 3 (no conflict) to 12 (a great deal of conflict). The within-individual standard deviation, capturing the amount of change in this construct across time, is .938 relative to the between-individual standard deviation of 1.476. The averaged reliability across all waves is .789 (Cronbach 1951).

Delinquent peers

The last dependent variable in the second portion of the analysis is delinquent peers. At each wave, respondents were asked how many of their close friends were incarcerated, had assaulted someone, committed theft, or sold drugs. Individuals could respond along a four-point scale (all, most, some, or none of them) where higher values indicate a greater number of delinquent peers. Item responses were summed to create an index of delinquent peers. This measure has an overall mean of 8.748, a standard deviation of 3.112, and ranges from 4 (no delinquent peers) to 16 (all delinquent peers). The between-individual standard deviation is 2.786 and the within-individual standard deviation is 1.454. A confirmatory factor analysis demonstrated high and consistent loadings of each item onto a unidimensional factor (results not shown).

Pre-Release Lagged Measures

As is often the case, past behavior often best predicts future behavior (Allison 2015). Though we outline how we are capable of controlling prior behavior in the analytic strategy section, we include lagged measures of each dependent variable (polysubstance use, criminal offending, family conflict, delinquent peers) in each respective analysis.

Lagged polysubstance use

To capture lagged polysubstance use, we draw from identical questions as previously outlined asking the respondent whether they used each substance prior to incarceration. This measure has an overall mean of .895, a standard deviation of .528, and ranges from 0 to 2.336.

Lagged criminal offending

The measure for lagged criminal offending is drawn from identical questions to those in the outcome measure, but instead asks about these behaviors prior to incarceration. This measure has an overall mean of 2.242 with a standard deviation of 1.169 and a range from 0 to 3.515.

Lagged family conflict

Like the prior measures the measure of family conflict prior to incarceration also uses the same three items. This measure has an overall mean of 6.661, a standard deviation of 1.704, and ranges from 3 (low conflict) to 12 (high conflict).

Lagged criminal peers

Lagged criminal peers has an overall mean of 9.414, a standard deviation of 3.685, and ranges from 4 (no delinquent peers) to 16 (all delinquent peers).

Control Measures

In addition to the lagged measures of the various outcomes, we control for a number of theoretically important measures.

Family support

Prior literature demonstrates that family support significantly relates to reentry success (for a review, see Martinez 2008) and is a separate theoretical construct than family conflict (Mowen and Visher 2015). To capture family support, we use three items that asked respondents on a four-point scale (strongly agree, agree, disagree, strongly disagree) how close they feel to their family, want family involved in their life, and consider themselves a source of support for family. This measure has an overall mean of 9.745, a standard deviation of 1.571, and ranges from 3 (low support) to 12 (very high support). The within-individual standard deviation is .891. We also include a measure of pre-incarceration family support that asked the respondent the same three questions, but inquired about those dimensions prior to incarceration. This pre-incarceration measure of family support has a mean of 10.523, a standard deviation of 1.511, and also ranges from 3 to 12.

Family incarceration

In addition, prior research demonstrates that incarceration/reentry is more difficult for families for which incarceration is a "shock" (Anderson and Wildeman 2014). To account for this, we include a measure that asked the respondents if any of their family members were ever in a correctional facility (1 = "yes", 0 = "no"). Overall, 78.3% of respondents answered yes to this question.

Employment

We also include a control for employment. At each wave, respondents were asked if they were employed (1 = "yes", 0 = "no"). Overall, 41.8% of the sample was employed (overall standard deviation = .494). As this measure varies across time (individuals could report being employed in one wave and not another), the within-individual standard deviation is .306.

Race

In addition to family support and employment, we include binary variables capturing the race of the respondent as it may relate to reentry outcomes (Wehrman 2010). Overall, 54.3% were coded as Black, 19.9% were coded as White, and 25.8% were coded as Other Race. In the analysis, we withhold White as the contrast group. We also include a control capturing the age of the respondent. This measure has a mean of 16.970, a standard deviation of 1.312, and ranges from 14 to 22.

Prior convictions

As prior contact with the criminal justice system relates to persistence in offending (Loeber et al. 2003), we include a variable capturing the total number of prior convictions the respondents reported. This measure has a mean of 3.252, a standard deviation of 3.531, and ranges from 1 to 40. As this measure is significantly skewed, we use the natural logarithm in the analysis.

Length of incarceration

In addition, we also control for the number of days in which the respondent was incarcerated. This measure, length of incarceration, has an overall mean of 370.848 days, a standard deviation of 227.873, and ranges from 20 days to 1362 days. Finally, as the overall goal of SVORI was to examine how enhanced reentry programming and services

related to a variety of reentry outcomes (see Visher et al. 2017), we include a binary measure capturing SVORI participation. This measure (1 = SVORI program participant, 0 = non-SVORI program participant) has an overall mean of .451 and a standard deviation of .498.

Missing Data

As with nearly all longitudinal datasets, there are missing data present in the SVORI youth sample. Prior publications and research using the SVORI sample has demonstrated that individuals included at wave one do not significantly vary from individuals at wave four across a wide variety of measures (e.g., Lattimore and Steffey 2010). In our analysis, we have complete data on most of the variables included in the analysis but are missing about 15% of data for a handful of measures (see the final column in Table 1). To ensure our analysis was robust to missing data, we performed a sensitivity analysis (see Brame and Paternoster 2003). Results demonstrated no significant differences between missing and non-missing responses, supporting prior research and reports on missing data patterns in this sample. Thus, to handle missing data, we use full-information maximum likelihood estimation (see Williams et al. 2016) to retain the full sample of 337 respondents in the forthcoming analysis.[1]

Analytic Strategy

While there are a variety of methods suitable for examining longitudinal panel data like SVORI, we use a cross-lagged fixed-effects dynamic panel data model (Allison 2015; Williams et al. 2016). This particular method has a number of advantages over traditional mixed-effects and fixed-effects models. First, as we noted above, the best predictor of future behavior at time t is often past behavior at time $t-1$. However, "including a lagged dependent variable in a mixed model usually leads to severe bias" (Allison 2015, p. 1). The same issue also occurs with linear fixed-effects models as the lagged measure can significantly bias estimates due to highly correlated error terms across time. To overcome this issue, a cross-lagged dynamic panel model uses a series of progressive chained equations to satisfy the assumptions of independence, thereby allowing for the inclusion of a lagged measure of the dependent measure in a mixed-effects or fixed-effects equation (Allison 2015).

The second significant benefit inherent within this type of cross-lagged dynamic panel model is the ability to use both between-individual time invariant estimates as well as within-individual time variant estimates within the same equation. Traditional fixed-effects models estimate only within-individual changes across time and fail to directly model between-individual differences. This can present a limitation since between-person differences such as race, gender, or age often relate to offending outcomes. On the other hand, a mixed-effects model—which can estimate both between-individual and within-individual metrics in one equation—is often susceptible to issues of endogeneity (Rabe-Hesketh and Skrondal 2012). The cross-lagged dynamic panel model treats the time variant predictors as fixed-effects estimates (within-individual only) while also including between-individual estimates of the time invariant predictors and, thus, is able to avoid the estimation issue inherent in traditional mixed models.

Given the two significant advantages of being able to (1) include a lagged measure of the dependent measure while being able to (2) include both between-individual and within-individual estimators, we proceed in two ways. First, we estimate models that examine the effects of the independent measures on the criminal offending and polysubstance use outcomes. Second, we estimate cross-lagged dynamic panel models that examine how family conflict and peer delinquency as outcomes.

Results

Criminal Offending

Model 1 in Table 2 presents results from a cross-lagged dynamic panel data model examining criminal offending. The model fit statistics indicate strong fit of the model to the data. Specifically, the chi-square statistic is not significant, the RMSEA is well below .06, and the comparative fit index is well above the threshold of .95 (Acock 2013; Moral-Benito et al. 2016). Turning to the substantive findings, within-individual increases in family conflict and delinquent peer influence post-release are both significantly associated with increased levels of offending. Results also demonstrate that the lagged measure of criminal offending is significantly associated with offending post-release. Each one unit increase in the lagged criminal offending measure is associated with a .159 unit increase in offending post-release. Examining the between-individual estimators, results demonstrate that Black respondents and Other race respondents, compared to White respondents, report significantly lower levels of offending.

Polysubstance Use

Model 2 presents results examining polysubstance use post-release. Like the prior analysis, the model fit indices suggest

[1] We estimated the models with and without full-information maximum likelihood (FIML). Results were substantively the same when cases were deleted using pairwise removal and imputed. Thus, to maintain the sample size of 337, we present the results using FIML.

Table 2 Cross-lagged dynamic panel model examining criminal offending and substance use post-release

	Model 1: criminal offending			Model 2: substance use		
	Coef.	S.E.	*p*	Coef.	S.E.	*p*
Post-release family and peer measures						
Family conflict [TV]	0.099	0.033**	0.003	0.034	0.010***	0.000
Delinquent peers [TV]	0.144	0.018***	0.000	0.025	0.006***	0.000
Pre-release lagged measures						
Polysubstance use	–	–	–	0.096	0.055	0.082
Criminal offending	0.159	0.059**	0.008	–	–	–
Family conflict	0.033	0.035	0.341	0.004	0.010	0.683
Delinquent peers	0.024	0.066	0.723	0.038	0.020	0.060
Control measures						
Employment [TV]	−0.035	0.102	0.732	−0.022	0.029	0.456
Family support post-release [TV]	−0.012	0.035	0.733	−0.009	0.010	0.398
Family support pre-release	0.052	0.038	0.176	0.008	0.011	0.493
Race						
Black	−0.435	0.144**	0.002	−0.196	0.045***	0.000
Other	−0.332	0.165*	0.043	−0.127	0.049**	
Age	−0.035	0.045	0.433	0.028	0.013*	0.034
Family incarceration	0.147	0.137	0.285	0.027	0.040	0.493
Length of incarceration	−0.050	0.095	0.597	−0.046	0.028	0.100
Prior convictions	0.096	0.092	0.301	0.020	0.028	0.456
SVORI participation	0.079	0.11	0.473	0.016	0.032	0.620
χ^2		51.824		38.761		
RMSEA		0.019		0.023		
Comparative fit index		0.977		0.978		

SVORI serious and violent offender reentry initiative, *Coef.* coefficient, *S.E.* standard error, *p* significance value, *TV* time variant measure

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

strong fit to the data (Acock 2013; Williams et al. 2016). Mirroring findings from the prior analysis, both within-individual changes in family conflict and delinquent peers post-release are associated with increased levels of polysubstance use after release. Unlike the analysis examining criminal offending, lagged polysubstance use pre-incarceration is not significantly associated with polysubstance use post-release. Turning to the between-individual estimates, results show that Black and Other race respondents report significantly lower levels of polysubstance use than White respondents. Finally, age is also significantly associated with polysubstance use in a manner where each 1 year increase in age is associated with a .028 higher score on the polysubstance use index.

Overall, these models share relatively similar findings. Although age appears to relate only to polysubstance use and the lagged measure of the dependent measure is only significant in the criminal offending model, both within-individual changes in family conflict and delinquent peers post-release are related to elevated levels of offending and polysubstance use. This finding meshes with prior work on the importance of peers and family in the reentry process (e.g., Mowen and Visher 2015; Boman and Mowen 2017). Moving toward exploring these factors further, we now turn to results of cross-lagged dynamic panel models examining family conflict and delinquent peers as outcomes.

Family Conflict

The first model in Table 3 regresses family conflict onto factors that may relate to it after release from residential placement. The measures of model fit, shown at the bottom of the table, indicate strong fit to the data in the same manner as the prior models (e.g., non-significant chi-square value, low root mean square error of approximation, high comparative fit index). The substantive results examining family conflict demonstrate that pre-incarceration levels of family conflict are significantly associated with post-release levels of family conflict. Specifically, individuals with high levels of family conflict pre-incarceration report significant increases in family conflict upon release. Turning to the control variables, results suggest that within-individual

Table 3 Cross lagged dynamic panel model examining family conflict and delinquent peers post-release

	Model 1: family conflict			Model 2: delinquent peers		
	Coef.	S.E.	*p*	Coef.	S.E.	*p*
Post-release recidivism						
Polysubstance use [TV]	0.510	0.423	0.226	0.168	0.642	0.794
Criminal offending [TV]	0.020	0.105	0.850	0.297	0.162	0.067
Post-release family and peer measures						
Family conflict [TV]	–	–	–	0.458	0.136***	0.000
Delinquent peers [TV]	0.110	0.058	0.056	–	–	–
Pre-release lagged measures						
Polysubstance use	0.095	0.061	0.095	0.101	0.080	0.231
Criminal offending	0.043	0.033	0.355	0.055	0.030	0.219
Family conflict	0.201	0.074**	0.007	0.079	0.103	0.444
Delinquent peers	0.002	0.105	0.056	0.080	0.069	0.247
Control measures						
Employment [TV]	0.052	0.226	0.819	0.480	0.340	0.162
Family support post-release	−0.398	0.093***	0.000	0.086	0.136	0.528
Family support pre-release	0.016	0.062	0.791	−0.186	0.108	0.086
Race						
Black	0.251	0.120	0.206	−0.048	0.426	0.911
Other	0.293	0.200	0.144	−0.199	0.447	0.655
Age	0.038	0.059	0.517	−0.105	0.124	0.399
Family incarceration	0.030	0.177	0.864	0.446	0.376	0.235
Length of incarceration	−0.042	0.114	0.714	0.118	0.256	0.645
Prior convictions	0.092	0.118	0.433	0.177	0.254	0.485
SVORI participation	−0.067	0.128	0.599	−0.002	0.296	0.995
χ^2		39.143		43.185		
RMSEA		0.024		0.033		
Comparative fit index		0.981		0.964		

SVORI serious and violent offender reentry initiative, *Coef.* coefficient, *S.E.* standard error, *p* significance value, *TV* time variant measure

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

increases in family support decrease family conflict across time. Every one unit increase in family support is associated with a .398 decrease in family conflict across time. This finding is of interest as family support was not related to either offending or substance use. However, it does appear to reduce family conflict. No other measure reached significance in the models.

Delinquent Peer Associations

Model 2 in Table 3 examines factors which might relate to levels of delinquent peer associations post-release. Although the model shows evidence of close fit to the data, only one measure—family conflict—reaches statistical significance. This indicates that each one unit increase in family conflict relates to a .458 unit increase in the delinquent peers scale, thereby suggesting that within-individual increases in family conflict increase the prevalence of within-individual delinquent peer associations post-release. Considering control variables and a lagged measure of peer delinquency failed to reach significance, results appear to suggest that family conflict is largely responsible for driving delinquent peer contact.

Sensitivity Analyses

To further validate these results, we performed a series of sensitivity analyses to ensure that our models were yielding valid and accurate results. Though we did not include lagged outcomes due to concerns over error independence, we estimated a series of mixed models (two levels) that revealed substantively identical results to those we present in this section. This remained true with both non-logged and non-weighted crime and substance use measures. Of all the

findings in this study, however, we placed particular emphasis on validating the causal direction of the family conflict/peer delinquency relationship. In further exploring these analyses at both the bivariate and multivariate levels, it became abundantly clear that the findings we present in this paper appear correct. Regardless of how it is captured or analyzed, it does appear that family conflict is a primary contributor to peer delinquency, a point to which we now turn.

Discussion

Despite having a strong foundational knowledge on processes occurring during adolescent development (e.g., Steinberg and Monahan 2007), researchers from a variety of disciplines have generally failed to acknowledge the considerable importance of reentry back into society following a term of incarceration for adolescent development. Building upon the broader developmental literature on peer (e.g., Dishion and Tipsord 2011) and family dynamics (e.g., Formoso et al. 2000), we postulated that family conflict and delinquent peer associations are important contributors to behavioral outcomes during the adolescent reentry process. However, given the foundational role of family conflict (Conger and Elder 1994) and peer associations (Warr 2002) in adolescent development, we have argued that both factors are meaningful outcomes in their own right. Using a sample of returning adolescent males and cross-lagged dynamic panel models, we first examined how family conflict and delinquent peer associations related to self-reported criminal offending and substance use. Second, we explored the causes and correlates of family conflict and peer delinquency during the process of reentry for returning youth.

The results demonstrated that even after controlling for prior behavior, increases in post-release family conflict and peer delinquency were significantly associated with higher levels of criminal offending and polysubstance use. Results using family conflict as the outcome demonstrated that individuals with higher levels of family conflict prior to release reported significant increases in family conflict once released. Regarding the models treating peer delinquency as the outcome, results demonstrated that within-individual increases in family conflict significantly related to within-individual increases in peer delinquency. This relationship existed even when the influence of pre-incarceration delinquent peer associations—both of which were non-significant—were controlled in the models. Overall, these patterns of findings strongly suggest that family conflict is the most important factor in the adolescent reentry process as family conflict causes direct increases in offending and polysubstance use while simultaneously contributing to significant within-person increases in delinquent peer associations across the reentry timeframe.

The findings from this study carry important theoretical implications. From the perspectives of differential association (Sutherland 1947) and differential coercion and social support (Colvin et al. 2002), we find a great deal of support for the importance of family conflict—as a source of coercion—for developmental outcomes among adolescents during reentry. These findings mesh with a great deal of prior developmental research noting that family conflict is associated with negative developmental outcomes (e.g., Conger and Elder). Placed within the context of differential association, our findings also build upon prior developmental research that has established a link between peer delinquency and negative developmental outcomes (Cochran et al. 2017). Yet, while peer delinquency does relate to crime, it appears that the reason deviant peer associations exist in the first place is because of family conflict. This is true even after controlling for prior delinquent peer associations. Strongly supporting the use of DCSS as a developmentally-focused theoretical orientation, family conflict works as a coercive force that drives individuals into other forms of coercion (e.g., future conflict and deviant peer relationships) which then relate to even greater levels of offending and substance use. In short, our findings demonstrate that family conflict is the most important theoretical developmental cause and effect for adolescents undergoing reentry.

In addition to the theoretical implications, findings from this study also carry policy implications. Perhaps the most obvious implication is that policy-makers seeking to reduce offending among returning youth may wish to consider programming that directly targets reducing levels of family conflict among youth returning from incarceration. Although programs are in place to improve family support (see Meyerson and Otteson 2009), our findings suggest that support and conflict are two distinct dynamics that work in completely opposite directions for returning youth (supporting Mowen and Visher's (2015) work). Although family support did not relate directly to offending or substance use, it did relate to family conflict. Specifically, within-individual increases in family support were significantly predictive of within-individual decreases in family conflict. This finding is important as it reveals that the presence of family support alone *is not enough to reduce post-release crime and deviance*. Instead, it demonstrates that within-individual increases in family support reduce one of the most robust motivators of offending and substance use (and peer delinquency): Family conflict. Collectively, programming aimed at increasing family support may not have any direct effect on deviance or substance use for adolescents who are returning home from a stay of incarceration. The robustness of the effect of family conflict on deviant

behavior and substance use necessitates that family conflict be realized more in policy than it currently is for returning adolescents.

The finding that family conflict is so imperative in causing increased associations with delinquent peers highlights the intertwined nature of social relationships during adolescence (see McGloin et al. 2014). Going one step further, however, this suggests that conflict within the family may drive youth out of the home in a way that results in increased unstructured time with deviant peers (see Osgood and Anderson 2004). This further reinforces the apparent, but unrealized, need for practitioners to form effective interventions with the goal of interrupting family conflict for returning adolescents. Research on multisystemic therapy may offer some insight into aiding adolescents during the process of reentry. Prior studies have shown that at-risk youth in families who receive multisystemic therapy report reduced rates of criminal activity and incarceration (Huey et al. 2000). Borduin and colleagues (1995, p. 569) suggest that multisystemic therapy improves "key family correlates of antisocial behavior" and promotes positive outcomes for both youth and family alike. To this end, it may benefit practitioners and individuals who work with returning youth and their families to explore multisystemic therapy as a mechanism to reduce family conflict and promote positive reentry outcomes.

With the potential benefits of multisystemic therapy noted, one thing appears clear: Attempts at simply reducing peer delinquency for returning youth may not be effective at shifting youth to a normal and healthy developmental path because they do not address family conflict as the root cause of peer deviance. This finding may be of importance for recent research that suggests that people's friendship choices can be altered (see DeLay et al. 2016). If peer selection can be fluidly changed so that people befriend more "normative" peers instead of friends who are criminally-inclined, this would truthfully represent a huge step forward in research on social groups and deviance. Furthermore, it would simultaneously provide for a new route of intervention that has not been extensively explored by an overburdened criminal justice system. However, considering DeLay and colleagues' research and our findings together is troubling because it suggests that family conflict may undermine attempts at altering peer selection during adolescence for those who are returning home from residential placement. Because family conflict appears to be driving both peer relationships as well as crime and substance use alike, the issue at the center of this concern is endogeneity. We encourage DeLay and colleagues as well other researchers to continue their future explorations with this possibility in mind.

This study is not without important limitations. First, as a male only sample, our results do not speak to experiences among female youth and young adults. Since research finds that males are more frequently criminally inclined than females, the current data limits the generalizability of the findings since reentry experiences may differ across sex and gender identity. Among other things, notable gender differences exist in the reasons for residential placement, victimization, and differing underlying propensities toward crime and criminal trajectories (see Sedlak and McPherson 2010). Second, despite being a diverse sample in terms of racial and ethnic composition, it may be difficult to generalize findings from this sample to broader populations of returning youth as those in this sample are serious and violent offenders. To provide one example of where this may make a difference, there are descriptive differences between our sample and the more "general" incarcerated youth population in the average number of days the adolescent spent in residential confinement. While this is probably the most obvious distinction, differences akin to this one may be reflected in other characteristics as well.

Outside of sampling limitations, there are notable methodological limitations as well. In addition to our criminal offending measure encompassing a limited number of behaviors, our analysis is limited to exploring only two domains of importance: Family and peers. Clearly, there are a variety of other factors that are important for the developmental period of adolescence during the reentry process (e.g., education, financial security, and life skills; see Weaver and Campbell 2015). In addition, youth diversion programs in some states have gained increasing popularity as a strategy to reduce the number of incarcerated youth and protect against recidivism (for a review, see Wilson and Hoge 2013). It is possible that youth who participated in diversion programs prior to incarceration may have reported more positive reentry outcomes than youth who did not participate in diversion programs. Our inability to control for the adolescent's state of residence (due to concerns of respondent confidentiality) enhances this as a limitation. Future research should explore the respective roles of family conflict and delinquent peer associations among youth who are provided with alternatives to incarceration and residential placement. Finally, we cannot correct for projection bias in the peer deviance measure in the way that Rebellon and Modecki (2014) and Boman and colleagues (2016) do because of the use of cross-lagged dynamic panel models. Regardless, research consistently demonstrates that peer deviance estimates are significant regardless of the way they are measured (see also Meldrum and Boman 2013). Despite some limitations, this project nonetheless carries value as it highlights the importance of reentry as a unique and important context which is worthy of study within the process of adolescent development.

Conclusions

In moving toward conceptualizing reentry as a unique developmental process for adolescents, this study contributes to existing scholarship demonstrating the pivotal influence of family conflict during adolescence (e.g., Aaron and Dallaire 2010). Within the process of reentry, findings show that in addition to causing negative behavioral outcomes, family conflict is a primary contributor to delinquent peer associations. Placed within the larger context of developmental research (e.g., Steinberg and Monahan 2007), our findings serve as a model through which to understand reentry as a developmental process during adolescence. Since existing policies do not focus on family conflict, they may be failing in two ways. First, they are probably not capturing family conflict as a direct cause of negative behavioral outcomes. Second, by not intervening in family conflict, policies may be simultaneously failing to prevent one of the major causes of peer delinquency (one of the most proven predictors of delinquency). While future research should refine the extant understandings of the roles and importance of both family and peer influences during the reentry process, our results demonstrate clearly that family conflict—at least at the present time—should be considered as a primary exacerbating factor of harmful social relationships and undesirable behaviors for adolescents who are returning home.

Authors' Contributions T.J.M. helped conceive of the idea, ran the data analysis, performed the sensitivity analyses, made the tables, wrote the middle of the paper, gathered information for references, and was the major contributor to the revisions of this study. He also proofread J.H.B.'s work. J.H.B. helped conceive of the idea, wrote the front end and discussion sections, wrote the response letter, and finished the article. He also read and edited the work of T.J.M. This is a collaborative effort. Both authors read and approved the final manuscript.

Data Sharing Declaration The datasets generated and/or analyzed during the current study are available in the University of Michigan's ICPSR repository. The data can be applied for at https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/27101?q=svori.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. For this type of study, formal consent is not required. This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent Informed consent was obtained from all individual participants included in the study. Since the data we use are deidentified, we do not have copies of the informed consents on hand.

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