Predicting youth assault and institutional danger in juvenile correctional facilities

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1. Introduction

Incidences of violence in juvenile correctional facilities can create problems such as physical and psychological harm, facility instability, longer lengths of stay and parole denials for youth, and ultimately, civil and criminal liabilities (Griffith, Daffern, & Godber, 2013; Deitch, Madore, Vickery, & Welch, 2013). Correctional administrators frequently use risk assessment instruments to identify risk factors that can be modified by evidence-based interventions to reduce the likelihood of future violence or misconduct in youth (Morris, Longmire, Buffington-Vollum, & Vollum, 2010; Schenk & Fremouw, 2012). Risk assessment instruments also play a fundamental role in determining the manner in which offenders are classified according to custody level, security level, and how correctional officers supervise offenders. While there are many benefits to using risk assessment instruments, their ability to accurately identify the risk of violence is only as good as its predictive validity.

Predictive validity refers to the ability of an instrument to accurately assess the probability of violence or recidivism (Singh, 2013). Risk assessments with high levels of predictive validity can increase juvenile justice agencies' capacity to make informed decisions regarding classification, interventions, and allocation of resources across racial/ethnic and gender groups (Vincent, Chapman, & Cook, 2011; Schwalbe, 2008). On the other hand, risk assessments with low levels of predictive validity can produce higher rates of classification errors, misdirect juvenile justice agency resources, and may be no better than professional judgment (Krysik & LeCroy, 2002). More importantly, when risk assessments do not reliably predict outcomes across racial/ethnic, gender, and age groups, their predictive validity can differ by race/ethnicity, gender, and age (Rembert, Henderson, & Pirtle, 2014). Thus, exacerbating disparities within the juvenile justice system, which is far from conclusive evidence (see, for example, Whiteacre, 2006; Onifade, Davidson, & Campbell, 2009; McCafferty, 2016).

Regarding the 120 different risk assessment instruments used in criminal justice and psychiatric settings, investigations of their predictive validity have produced sizable literature in recent years (Singh & Fazel, 2010). The information obtained from predictive validity studies is useful to researchers and practitioners in understanding the strengths and weaknesses of risk assessment instruments' ability to accurately predict adverse outcomes. Considering that there is limited empirical knowledge on the community-based Positive Achievement Change Tool-Prescreen's (PACT-PS), the goal of this study was to explore it's predictive validity for youth assault and institutional danger among state committed male youth and at the request of the Youth Correctional System (YCS; a pseudonym; confidentiality was a condition for obtaining data from the agency).

The PACT-PS was selected for evaluation for two reasons. First, this research proposes a promising avenue for future research that could have a significant practical impact on classification. For example, while the Residential-PACT, which is part of the PACT Tools, does not produce an overall risk to reoffend score. Juvenile correctional agencies have to rely on non-PACT tools or other risk assessment instruments to identify the appropriate level of restrictiveness within which supervision will be delivered. Therefore, the central question is whether the PACT-PS will successfully predict institutional misconduct. One study has already provided evidence to this question (Rembert, Henderson, Threadcraft-Walker, & Simmons-Horton, 2017), but there is still more research that needs to be performed to understand the PACT-PS overall effectiveness in a correctional setting. Second, the PACT-PS contains measures of importation theory, which are frequently used when examining youth assault in the juvenile institutional misconduct and risk prediction literatures.

2. Correlates of youth assault in juvenile corrections

Researchers have often selected correlates of youth assault based on the importation model. Irwin and Cressey (1962) proposed the importation model of adjustment, arguing that offender behavior is best explained by antisocial behaviors, values, and beliefs offenders develop in the community and import into the prison environment. For example, if an individual was convicted and sentenced for larceny, it is likely he or she will do the same while incarcerated. These pre-prison offender characteristics are considered risk factors at intake and used to determine inmate needs or treatment planning during incarceration (Hannah-Moffat, 2005). Also, pre-prison offender characteristics are

often used in prison policies, classification, security levels, and treatment decisions (Moloney, van den Bergh, and Moller, 2009). To the best of our knowledge, only four research studies have empirically examined the relationship between importation variables for both youth assault and composite measures of youth assault among state committed youth.

Blackburn and Trulson (2010) examined the relationship between several importation variables for both youth assault and major rule violations (i.e., behaviors include but not limited to chunking bodily fluids, possession of a weapon, staff assaults, youth assaults, and rioting) among 139 serious and violent female youth who were committed under a blended sentencing statute in the Youth Correctional System. Using negative binomial estimates, they found that Blacks, gang-affiliated youth, and mental disorders were associated with youth assaults. Consistent with the adult and juvenile literature, younger youth at the time of commitment were more likely to engage in major rule violations. Lahm (2017) pointed out that the relationship between race and female institutional misconduct is ambiguous, at best. Some researchers have found that non-White females are more likely to engage in violence than White females (Houser & Welsh, 2014). However, other researchers have found that non-White females are less likely than White females to be written up for minor disciplinary infractions (Drury and DeLisi, 2010). Finally, previous research has established that gang affiliated and mentally ill females are more likely to engage in misconduct compared to their counterparts (DeLisi, Spruill, Peters, Caudill, and Trulson, 2013).

Trulson, DeLisi, Caudill, Belshaw, and Marquart (2010) examined youth assaults and major rule violations among a sample of 2520 serious and violent male state committed youth under the state's blended sentencing statute at the Youth Correctional System. They explored several demographic, criminal history, and social history variables based on importation theory. Using negative binomial regression models, they found that age, Blacks, gang members, mental disorders, out-of-home placements, chaotic home environments, serious person/property offenses, sexual-related offenses, and homicide commitment were associated with youth assaults. Except for age at commitment, those with a greater number of previous adjudications, a greater number of previous out-of-home placements, gang members, substance abusers, and those who resided in a chaotic home environment before state commitment were associated with major violations. Trulson et al. (2010) argued that the delinquent history variables provide the greatest explanation of the expected major misconduct rate relative to social history variables. In light of recent studies demonstrating heterogeneity in offender populations and distinct developmental patterns, Cochran and Mears (2017) claim that it is unclear, and that future studies should examine "whether prisoner behavior represents the continuation of a pre-prison criminal career inside the prison walls or if misconduct is unrelated to prior offending patterns" (p. 453).

DeLisi, Beaver, et al. (2010) used data from 791 state committed youth confined to the California Youth Authority to evaluate youth assault, staff assault, and aggressive misconduct. Distress, self-restraint, age, race, sex, commitment offense type, total prior delinquent offenses, and mental health served as independent variables. Using negative binomial regression models, DeLisi, Beaver, et al. (2010) found that age was related to youth assault for both genders. For males, they found that lower self-control was related to youth assault. For females, prior offenses and psychiatric diagnosis emerged as significant predictors of youth assault. Similar results were found for aggressive misconduct and assaults against staff across the gender groups. The authors concluded that the psychosocial profiles for males were different from females and that males had lower self-control than females for institutional misconduct. However, the authors failed to offer an adequate explanation for gender differences related to psychosocial profiles and low self-control when examining youth assault.

DeLisi, Trulson, Marquart, Drury, and Kosloski (2011) examined assault (i.e., any assault against a staff or fellow resident) within the life-course framework using a large sample of state committed youth

($n = 2520$) from a large Southern state. Four importation domains were examined: race/ethnicity, time served, family background characteristics, and delinquent career characteristics. They found that youth with a greater number of out-of-home placements, living in poverty, violence toward family members, and those with lengthier time served were more likely to engage in any assault. This is the only study that examined the relationship between perpetration of family violence, adverse childhood experiences, and institutional violence.

3. The role community-based risk assessments predicting youth assault in corrections

Several researchers have found that community-based juvenile risk assessments originally designed to predict community outcomes were also predictive for a wider range of youthful offenders and recidivistic outcomes in institutional settings. For example, the Massachusetts Youth Screening Instrument-Second Version (MAYSI-2) was originally designed to identify emotional, behavioral, and psychological disturbances among adolescent offenders (Grisso & Barnum, 2006). Butler, Loney, and Kistner (2007) found that the MAYSI-2 angry-irritable subscale, the only subscale out of seven, was significantly correlated with major misconduct for serious rule violations (e.g., aggression toward a peer; $r = 0.20$) and intensive supervision placements (e.g., acute and severe threat to self or others; $r = 0.28$). DeLisi, Caudill, et al. (2010) and DeLisi, Drury, et al. (2010) presented several modifications of Poisson and negative binomial models for count data. Both studies examined the MAYSI-2 subscales to predict assaultive behavior in a sample of 813 youth committed to the California Youth Authority between 1997 and 1999. Somatic complaints, anger-irritability, traumatization, prior adjudications, younger youth, and White youth emerged as significant predictors of sexual misconduct. Anger-irritability, total prior offenses, and younger youth were significantly related to staff assaults (see DeLisi, Caudill, et al., 2010). Youths with elevated anger-irritability scores and younger youth were more likely to assault other youth. Anger-irritable, substance abuse, somatic complaints, and traumatization were significantly related to total incidents of misconduct (see DeLisi, Drury, et al., 2010). One major drawback of these studies is that some failed to use ROC curve analysis, which is the preferred statistical technique because it is less sensitive to base rates (Rice & Harris, 2005).

Another example is the Youth Level of Service/Case Management Inventory (YLS/CMI) originally developed for juvenile probation officers to assist them with classification and case management planning (Bechtel, Lowenkamp, & Latessa, 2007). One study by Holsinger, Lowenkamp, and Latessa (2006) found that number of days spent in the institution and total risk score were positively and significantly associated with high- and greatest-misconduct (e.g., assault without a weapon, sexual assault, physical assault, verbal threat against a correctional worker, and possession of a weapon or firearm). Days spent in the institution and total risk score explained 21% of the variance in high misconduct and 35% of the variance in greatest misconduct. The main limitation of this study was their small sample size of 80, which prevented further analysis of additional variables and generalizability of their results. Holsinger and colleagues failed to provide information on the racial composition of their sample. Finally, and in brief, the Psychopathy Checklist: Youth Version (PCL-YV) was designed to measure psychopathic traits in adolescents (Forth, Kosson, & Hare, 2003), yet it is commonly used to identify youth at risk for violence, reoffending, and institutional misconduct (Edens & Campbell, 2007; Leistico, Salekin, DeCoster, and Rogers, 2008; Olver, Stockdale, & Wormith, 2009).

4. PACT-PS

The PACT-PS is a generalized initial screening instrument designed to predict youths' risk to reoffending. The PACT-PS contains 43-items,