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Unpacking the relationship between age and prison misconduct

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A B S T R A C T

Purpose: Age constitutes one of the most robust correlates of prison misconduct—younger inmates are more likely to commit infractions. Minimal theoretical or empirical attention, however, has been given to the potential nonlinear effect of age on misconduct. The current study examines the age-misconduct relationship and how it may vary by timing of misconduct after admission and by type of infraction. The paper also assesses the utility of different nonlinear transformations to estimate the age-misconduct relationship.
Methods: The study examines 137,552 offenders admitted to state prison in Florida from 1995 to 2000 and uses negative binomial regression to assess the relationship between age and misconduct.
Results: Analyses indicate that the youngest inmates, especially those age 24 and under, are substantially more likely to engage in misconduct, that this relationship is more pronounced during the initial months of incarceration, and that it holds regardless of type of offense.
Conclusions: The youngest inmates appear to be especially likely to engage in misconduct. Nonlinear specifications of the age-misconduct relationship should be employed in future research. Studies are needed to explain why misconduct is disproportionately higher among young inmates. Policies are needed that effectively reduce misconduct among this population.

Introduction

The effect of age on institutional misconduct stands as one of the most consistent and robust determinants of misconduct found in both juvenile and adult prison research (Blackburn & Trulson, 2010; Camp, Gaes, Langan, & Saylor, 2003; Cunningham & Sorensen, 2007; DeLisi et al., 2010; Gaes, Wallace, Gilman, Klein-Saffran, & Suppa, 2002; Griffin & Hepburn, 2006; Harer & Langan, 2001; Kuanliang, Sorensen, & Cunningham, 2008; Steiner, Butler, & Ellison, 2014; Toch, Adams, & Grant, 1989; Trulson, 2007; Trulson, DeLisi, Caudill, Belshaw, & Marquart, 2010; Walters & Crawford, 2013; Wooldredge, Griffin, & Pratt, 2001). The bulk of the research assumes a linear relationship between age and misconduct and has consistently demonstrated that younger inmates are more likely than older inmates to engage in misconduct, after controlling for other correlates.

However, several lines of theoretical and empirical scholarship anticipate that the age-misconduct relationship is not linear and that the youngest inmates engage in disproportionately more misconduct (e.g., Bishop & Frazier, 2000; Cao, Zhao, & Van Dine, 1997; Kuanliang et al., 2008; MacKenzie, 1987; Scott & Steinberg, 2008). Developmental accounts, for example, argue that the youngest inmates will have the highest level of misconduct due to immaturity and to the rapid changes that occur during adolescence and young adulthood (Scott & Steinberg, 2008). Similarly, juvenile justice and inmate deprivation perspectives argue that the youngest inmates, who are less developmentally prepared to adjust to the deprivations of prison, may be more likely to react to the prison environment in hostile or ambivalent ways (Bishop & Frazier, 2000; Scott & Steinberg, 2008). The logic of these accounts suggests not only that misconduct may be substantially more pronounced among the youngest inmates but also that it occurs at a higher rate during the initial transition to prison.

Understanding the precise functional form of the age-misconduct relationship is important for several reasons. First, research and risk assessment approaches that fail to model a curvilinear relationship when one may exist—such as when lower levels of X exert a greater effect on Y than do higher levels of X—will misestimate the strength of association. Second, a curvilinear relationship, if identified, would lend support to theoretical accounts that identify developmental factors as important for understanding inmate behavior and responses to confinement. Third, by extension, identifying a curvilinear relationship would provide a foundation for developing greater understanding into the causes of inmate behavior.

Against that backdrop, the goal of this study is to contribute to scholarship on prison order and inmate behavior and, in particular, to use developmental perspectives to understand how age and inmate misconduct are related in the adult prison system. To this end, we first discuss prior research on the age-misconduct relationship, why age may be curvilinearly associated with institutional

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infractions, and how this association itself may vary with respect to the timing and type of misconduct. We then describe the data, which consist of over 137,000 inmate records from the Florida Department of Corrections, and their usefulness in estimating the age-misconduct association. Using negative binomial regression models, we examine if the age-misconduct relationship varies with respect to the timing of and type of misconduct during the first year after admission to prison. We then explore the utility of different nonlinear transformations to examine if there is any substantive improvement associated with a particular approach to estimating the age-misconduct relationship. In the conclusion, we discuss the implication of these findings, the importance of modeling the nonlinear effect of age on inmate misconduct, and avenues for future research.

Literature review

Age and inmate misconduct

The bulk of prison misconduct research consistently finds a linear relationship between the age of inmates and levels of misconduct and measures age as a continuous variable (DeLisi, 2003; DeLisi, Trulson, Marquart, Drury, & Kosloski, 2011; Gover, Pérez, & Jennings, 2008; Kuanliang & Sorenson, 2008; Sorensen & Cunningham, 2010; Steiner & Wooldredge, 2008, 2009a, 2009b). However, few studies have investigated whether this relationship is curvilinear and, in particular, whether younger inmates are disproportionately more likely to engage in misconduct, whether the effect may be more likely during the initial transition to prison and decrease as the length of incarceration increases, and whether the age effect varies across the type of offense for which the inmate was incarcerated. These gaps are surprising in part because younger inmates constitute a substantial part of the inmate population and because scholarship suggests that they may respond to incarceration in ways that differ greatly from how older inmates respond. The potential for such a nonlinear relationship between age and misconduct derives from several lines of scholarship.

First, the rapid development of individuals during adolescence and into early adulthood suggests that misconduct, as with crime, should decline rapidly until individuals are in their early 20s before then slowly tapering off into adulthood. Developmental and juvenile justice scholars have argued that adolescence, especially late adolescence, is a stage of development marked by "rapid and dramatic change within the individual" (Scott & Steinberg, 2008, p. 32). The transformation from adolescence to adulthood is often characterized by changes in maturity and other factors related to physical, cognitive, and emotional development, which may also influence misconduct. The youngest inmates, then, should have the highest level of misconduct due to their less developed cognitive and psychosocial maturity (Scott & Steinberg, 2008).

Second, research on juvenile offenders suggests that institutionalized juveniles are "most at risk of facing adult imprisonment once they exit the juvenile justice system and transition from adolescence to adulthood" (Blackburn, Mullings, Marquart, & Trulson, 2007, p. 35). Several studies focusing specifically on juveniles and institutional misconduct have illustrated that younger inmates—even among samples consisting only of juveniles—are more likely to engage in various forms of misconduct (Blackburn & Trulson, 2010; DeLisi et al., 2010; Trulson, 2007; Trulson et al., 2010) and that juvenile institutional misconduct can also have an impact on future adult sanctioning (Trulson, Caudill, Belshaw, & DeLisi, 2011) as well as recidivism (Trulson, Haerle, DeLisi, & Marquart, 2011). The implication is that youth who enter the juvenile justice system at a younger age may be among the most likely to engage in misconduct in juvenile facilities, continue to offend after release, and eventually may contribute to the pool of very young inmates in prison who engage in high levels of misconduct. Consistent with an importation argument, younger inmates, whether in juvenile or adult facilities, may be qualitatively different than older inmates (beyond age) causing an increase in their risk for engaging in misconduct (Trulson, 2007).

Conversely, younger inmates may be less able to cope with the deprivations experienced in prison, what Sykes (1958) referred to as the "pains of imprisonment," and thus may react in disruptive ways. Prisons constitute settings that involve substantial levels of stress and for many individuals can be disorienting. Those who lack the psychological or emotional maturity to negotiate such settings can be anticipated to experience greater strain and to respond through a greater willingness to resort to violence or a desire to act out through non-compliance with institutional rules and regulations (Bishop & Frazier, 2000; Scott & Steinberg, 2008).

Despite the fact that age has been identified as a strong predictor of misconduct and institutional adjustment, and despite scholarship that suggests that age may be curvilinearly associated with misconduct, only a small number of studies have investigated the precise functional form of the age and misconduct relationship. For example, a study by MacKenzie (1987) investigated a sample of 755 inmates from four institutions and divided the inmates into broad age categories (<19, 20–24, 25–29, etc.). The results revealed that the youngest age group (<19) reported more misconduct in comparison to older age groups and an examination of the mean differences for each age group "revealed a rapid decline from teenage years through the twenties and, thereafter, a more gradual decline" (p. 438). Cao et al. (1997) also examined the potential nonlinear relationship between age and prison misconduct using an admissions cohort of inmates from five Ohio state prisons and included a quadratic specification for age to capture a possible nonlinear association between age and misconduct. The results revealed a positive, statistically significant effect of age on misconduct; inmates age 27 and younger were more likely to engage in misconduct.

More recent research by Kuanliang et al. (2008) also suggests that the age-misconduct curve is not linear but will "dip more dramatically during the younger years" (p. 1191). The authors compared violent misconduct of juveniles (i.e., 17 and younger), youthful adults (i.e., 18–20 and 21–25), and adults (i.e., 26–30, 31–35, 36–40, 41 and older). Similar to MacKenzie (1987), the authors also used broad age categories to examine variation in misconduct; however, official reports of violent infractions were used instead of self-reports to measure misconduct. The authors found that the older the inmate, the less likely the inmate was to engage in violent misconduct. Further, the age trajectories for the rate of violent prison misconduct displayed a steep decline at first and then a more moderate decline as age increased.

Although these and related studies (e.g., Gaes et al., 2002; Harer & Steffensmeier, 1996; Morris, Longmire, Buffington-Vollum, & Vollum, 2010) have provided important insight into the age-misconduct association, several limitations exist. These include the use of small sample sizes, which reduces the ability to estimate functional form precisely across different inmate groups, and modeling techniques that do not readily allow for the estimation of curvilinear relationships. The latter constitutes a particular concern given the expectation that age effects may decline rapidly in late adolescence and early adulthood. In addition, prior studies typically have not examined misconduct over the first several years of incarceration, how the age effect may vary by type of offense and gender, and, not least, whether the age-misconduct relationship is more pronounced during the initial transition to prison, a period of time when inmates may be at their most vulnerable (Adams, 1992).

Age and type of inmate misconduct

In recent years, scholars have called for the use of disaggregated categories of misconduct in studies examining prison behavior (Camp et al., 2003; Steiner & Wooldredge, 2008; Trulson, DeLisi, & Marquart, 2011). However, most studies to date have grouped types of misconduct into a general category (Gover et al., 2008; MacKenzie, 1987; McReynolds & Wasserman, 2008) or have focused primarily on violent