

to violence and the incidence of the different types of misconduct. Analysis of the main effects of the facility characteristics indicated that, to a degree, indirect exposure to violence influenced level of maladjustment. Facilities housing a greater proportion of violent offenders had higher rates of misconduct, and facilities with higher assault rates or homicide rates also had higher rates of some types of misconduct. Analysis of the moderating effects of facility characteristics on the exposure to violence-maladjustment relationship revealed inconsistent results across models, however. More research is needed regarding the conditioning effects of facility environments on the relationship between direct exposure to violence and maladjustment.

The results of this study hold important policy implications for correctional administrators. Prior victimization appears to be a factor that officials should consider when making housing and security decisions; exposure to violence was generally related to higher odds/incidence of misconduct. In addition, findings from the analyses of mental health problems revealed that exposure to different forms of violence were associated with poorer mental health among inmates. Thus, including indicators of victimization experiences in needs assessments may facilitate identifying individuals in need of treatment or counseling.

Given the consistent findings of abuse as a child and assaults as an adult in the multivariate models of maladjustment, future researchers should consider including these measures as standard predictors in multivariate models of misconduct. In conjunction, sexual victimizations were important predictors of inmate mental health, and scholars may wish to consider including measures of a history of sexual abuse in analyses pertaining to inmates' mental health.

The findings regarding indirect or environmental exposure produced mixed results. The main effects of indirect exposure to violence contributed to higher incidence rates of misconduct. However, the moderating effects of facility characteristics on the direct exposure to violence-

misconduct relationships were inconsistent. These findings, coupled with the fact that most of the relationships between the measures of exposure to violence and the indicators of maladjustment did not vary across facilities, suggest that focusing on the main effects of indirect exposure to violence may be more fruitful than focusing on moderating effects. Either way, the findings from this study underscore the need for further research regarding facility-level measures of exposure to violence and/or how they may condition the individual-level relationships.

INTRODUCTION

Inmate maladjustment refers to the difficulty or inability of individuals to adapt to or cope with the confinement experience. Indicators of maladjustment include mental health problems and disruptive behavior (Adams, 1992; Toch et al., 1989). Mental health problems may include psychoses, anxiety, and depression, while disruptive behavior includes antisocial acts, most of which would violate institutional rules (Adams, 1992). An understanding of the causes/correlates of inmate maladjustment is important for a number of reasons. First, inmate maladjustment may threaten institutional order and safety, both of which are high priorities of correctional administrators (DiIulio, 1987; Gendreau, Goggin, & Law, 1997). Second, maladjustment also has implications for inmates' long-term well-being; maladjustment can interfere with inmates' rehabilitation and long-term behavioral change (Adams, 1992). Finally, an understanding of the influences of inmate maladjustment can also be informative for developing practical methods to reduce or control the problem, such as assessment tools, treatment modalities, and structured inmate routines (Adams, 1992; Toch et al., 1989; Wright, 1993).

Extant studies of inmate maladjustment have revealed that inmates' pre-incarceration characteristics and features of facility environments impact maladjustment (e.g., Wooldredge, 1999; Steiner & Wooldredge, 2008), but very few of these studies have focused on whether exposure to violence impacts maladjustment. Researchers have uncovered a link between victimization and offending (e.g., Lauritsen & Laub, 2007; Sampson & Lauritsen, 1994; Shaffer & Ruback, 2002), which suggests that offenders are exposed to violence at higher rates than the general population. However, it is less clear whether offenders who were exposed to violence prior to their incarceration are more likely to become maladjusted after their incarceration, or whether the relationship between exposure to violence and maladjustment is influenced by

differences in the characteristics of the facility environments in which those inmates are confined.

A number of studies have linked exposure to violence to indicators of maladjustment (e.g., mental illness, offending) within general population samples (e.g., Clements et al., 2008; Eitle & Turner, 2002; Fagan, 2005; Finkelhor et al., 2009; Smith & Ecob, 2007; Widom, 1989a, 1989b). Very few studies have examined this relationship among inmate samples (e.g., Steiner & Wooldredge, 2009a, 2009b), and none of these studies have examined whether this relationship varied by the type of violence to which inmates were exposed. Similarly, none of the existing studies of inmate samples have examined whether the relationship between exposure to violence and maladjustment varies across facilities and whether these differences are impacted by characteristics of facility environments. Practitioners and academics have long recognized the potential influence of both inmate *and* environmental characteristics on maladjustment (e.g., Goodstein & Wright, 1989), however, only recently have researchers begun to reliably examine the relative influences of these two levels of factors, not to mention whether they interact (e.g., Camp et al., 2003; Huebner, 2003; Steiner & Wooldredge, 2008, 2009a, 2009b; Wooldredge et al., 2001). Such information is important because it could shed light on which types of inmates may be better suited for some types of environments versus others.

For the purpose of providing useful information on this subject, we examined data from the Survey of Inmates in State and Federal Correctional Facilities and the Census of State and Federal Adult Correctional Facilities. We assessed the effects of exposure to different types of violence (e.g., child abuse versus intimate partner violence) on different forms of misconduct (e.g., assault versus drug/alcohol) and different types of mental health problems (mania versus depression). We also examined whether these relationships varied across facilities, and if so,

whether the strength of these relationships were moderated by characteristics of the facilities (e.g., rate of violence) in which these inmates were confined.

DIRECT EXPOSURE TO VIOLENCE AND MALADJUSTMENT

The hypothesized relationship between exposure to violence and various indicators of maladjustment (e.g., offending, mental illness) has been framed within subcultural or learning theories, lifestyle/routine activities theories, strain theory, or a general trauma response (PTSD) model. Learning theories, for instance, posit that exposure to violence might teach individuals violent behavior and attitudes (Akers, Krohn, Lanza-Kaduce, & Radovich, 1979). Observing or experiencing violence could model violent behaviors. Individuals may then imitate those behaviors (Johnson-Reid, 1998; Widom, 1989b). Repeated exposure to violence may teach individuals that violence is an appropriate method for solving problems, and individuals exposed to repeated violence may develop internalized norms and attitudes that justify or support the use of violence (Spaccarelli, Coatsworth, & Bowden, 1995). On the other hand, exposure to violence may also disrupt prosocial learning processes (Clements, Oxtoby, & Ogle, 2008). Individuals who reside in violent environments may have limited exposure to examples of healthy social adjustment, and the emotional extremes exhibited by cohabitants with violent tendencies may interfere with their ability to interpret emotional cues and regulate their own mental or emotional states (Clements et al., 2008).

Lifestyle and routine activities theories emphasize the potential for daily routines and lifestyle patterns to alter victimization risk (Cohen & Felson, 1979; Miethe & Meier, 1994). The link between exposure to violence and offending is explained by the overlap the in characteristics, lifestyles, and routines of offenders and victims (Cohen & Felson, 1979; Miethe & Meier, 1994). Offenders' lifestyles may bring them into proximity with other offenders, as

individuals are more likely to victimize persons or places within their social network; thus, victimization risk may be proportional to the number of characteristics shared with offenders (Shaffer & Ruback, 2002; Smith & Ecob, 2007). In addition, offenders are more likely to use alcohol and drugs which may make them incapable guardians. Offenders can also be victimized with a lower risk of legal consequences (Shaffer & Ruback, 2002). Finally, researchers have revealed that victims and offenders are concentrated in the same geographic areas (e.g., disadvantaged neighborhoods, prisons), which contributes to higher odds that those individuals at risk for victimization will come into contact with potential offenders (Lauritsen & Laub, 2007; Wooldredge & Steiner, In Press).

Strain theories may also be relevant to the hypothesized relationship between exposure to violence and maladjustment. Strain theory posits that stressful life events (e.g., exposure to violence) create negative emotional or mental states (Agnew, 1985). Individuals may turn to crime and/or drug use in order to cope with strain. Violent victimization is a traumatic event that may be perceived as an intense and undeserved strain (Agnew, 2001; Hay & Evans, 2006). Therefore, exposure to violence may provoke negative emotions such as anger, resentment, depression, and anxiety (Hay & Evans, 2006). Victimization may also be a strain that creates pressure for retaliation. Violent and property offending may satisfy a desire for revenge against those responsible for the initial injury or may assist in venting frustration (Hay & Evans, 2006). Exposure to violence might also lead to substance use as a means to cope with the emotional or mental distress induced from victimization.

Finally, the impact of exposure to violence on maladjustment could also be framed within a model of trauma exposure or post-traumatic stress disorder (PTSD). Experiencing child abuse and/or a violent or sexual assault is a traumatic event which may induce symptoms of PTSD

(Fowler Tompsett, Braciszweski, Jacques-Tiura, & Baltes, 2009; Luthra et al., 2009). For example, as a result of a violent victimization, individuals may experience flashbacks, vivid memories, or nightmares of the event; they may experience avoidance or numbing; and they may suffer from heightened arousal or hypervigilance (APA, 2000). In addition to (or as a result of) experiencing mental health problems, individuals may react to trauma negatively, such as by acting aggressively or using illegal substances (Ardino, 2012; Kilpatrick, Ruggiero, Acierno, Suanders, Resnick, & Best, 2003).

In support of the theoretical linkages outlined above, there is considerable evidence to suggest that there is a relationship between direct exposure to violence and indicators of maladjustment (Jennings, Piquero, & Reingle, 2011). For instance, Widom (1989a) found that suffering abuse and/or neglect as a child or during adolescence was associated with increased rates of delinquency, adult criminality, and violent behavior (see also Widom & Maxfield, 2001). Shaffer and Ruback (2002), along with Smith and Ecob (2007), observed that experiencing victimization increased individuals' odds of offending. Other studies have provided evidence of a relationship between exposure to violence and other indicators of maladjustment, such as attitudes supportive of violence (Dube, Anda, Felitti, Edwards, & Williamson, 2002; Scarpa, 2003; Simon, Anderson, Thompson, Crosby, Shelley, & Sacks, 2001; Spaccarelli et al., 1995; Whitfield, Anda, Dube, & Felitti, 2003), drug use, partner violence (Fagan, 1995), and mental health problems (Campbell, 2002; Clements et al. 2008; Luthra et al. 2009; Murray, Ehlers, & Mayou, 2002; Thornberry et al. 2001).

INDIRECT EXPOSURE TO VIOLENCE AND MALADJUSTMENT

In addition to direct exposure to violence, researchers have also uncovered that indirect exposure to violence can affect maladjustment (Buka, Stichick, Birdthistle, & Earls, 2001; Eitle

& Turner, 2002; Lynch, 2003). Particularly relevant may be exposure to violent environments such as individuals' neighborhoods of residence. The level of violence within an area impacts the odds area residents will observe violence. Individuals are more likely to observe violence in areas with higher levels of violence, and observations of violent behaviors could serve to model those behaviors. Individuals may then imitate those behaviors (Johnson-Reid, 1998; Widom, 1989b). Individuals who are indirectly exposed to violence repeatedly may come to believe that violence is an appropriate means of solving problems; these individuals may develop attitudes that tolerate or support violence as a means of resolving conflicts (Spaccarelli et al., 1995). Individuals who reside in violent environments may also have limited exposure to examples of pro-social behavior, which could disrupt the learning of these behaviors (Clements et al., 2008).

Exposure to environments that are more violent might also amplify the individual-level effect of exposure to violence on maladjustment. Specifically, indirect exposure to environmental violence could encourage maladjustment by stimulating a response that was fostered by experiencing direct exposure to violence. In partial support of these ideas, researchers have found that witnessing violence contributes to higher rates of mental health problems, aggression and offending (Buka et al., 2001; Eitle & Turner, 2002; Lynch, 2003).

EXPOSURE TO VIOLENCE AND INMATE MALADJUSTMENT

Findings such as those reviewed above suggest that offenders are exposed to violence (directly or indirectly) at higher rates than the general populations (see also Lauritsen & Laub, 2007; Sampson & Lauritsen, 1994; Shaffer & Ruback, 2002; Singer, 1981; Smith & Ecob, 2007), yet very few studies have examined whether exposure to violence influences maladjustment within offender populations, let alone once these individuals are incarcerated. Evidence derived from studies of inmate or former inmate samples suggests that inmates who

were exposed to violence prior to their incarceration were also more likely to experience indicators of maladjustment prior to their incarceration (McClellan et al., 1997; Spaccarelli et al., 1999). Researchers have also uncovered that exposure to violence within prison influences maladjustment within prison and upon release. For example, Wooldredge (1999) found that inmates who experienced a violent victimization in prison were more likely to feel insecure, stressed, depressed, angry, lonely, and experienced lower self-esteem. Boxer et al. (2009) found that offenders who were exposed to violence during incarceration had higher odds of exhibiting antisocial behavior and emotional distress after their release. Listwan et al. (2010) uncovered that offenders exposed to violence in prison experienced more psychological trauma, PTSD symptoms, and symptoms of depression and anxiety compared to offenders who were not exposed to violence in prison. As far as we are aware, however, only Steiner and Wooldredge (2008, 2009a, 2009b) examined whether exposure to violence prior to incarceration influenced maladjustment within prison. They revealed that whether an inmate had been physically or sexually abused was positively related to both male and females' odds of assault and nonviolent misconduct.

CURRENT STUDY

This study was designed to advance existing research in several ways. First, we examine the exposure to violence-inmate maladjustment relationship using a nationally representative sample of inmates housed in state confinement facilities, thereby increasing the generalizeability of the results. Steiner and Wooldredge (2008, 2009a, 2009b) also examined this relationship using earlier waves of the data series that are used here; however, their studies only assessed the relationship between a pooled measure of whether an inmate had suffered any abuse (physical or sexual) and misconduct (one indicator of maladjustment). We expand on their findings here by

assessing the relative effects of different measures of exposure to violence prior to inmates' current admission to prison (e.g., child abuse versus spousal abuse) on maladjustment. Studies conducted on general population samples have revealed variability in the effects of exposure to different types of violence on maladjustment (Luthra et al., 2009; Wilson, Stover, & Berkowitz, 2009), and so it is logical to expect variation in the magnitude of effects of exposure to different types of violence on inmate maladjustment. Third, we also examine the effects of exposure to violence prior to incarceration on several different indicators of inmate maladjustment, including different types of inmate misconduct (e.g., violent versus drug) and mental health problems (e.g., manic symptoms versus depression symptoms). Researchers have observed differences in the effects of exposure to violence across different indicators of maladjustment among general population samples (e.g., mental health problems versus violence) (Fowler et al., 2009; Wilson et al., 2009). Finally, we also examine whether the relationship between exposure to violence and maladjustment varies across facilities, and if so, whether it is moderated by characteristics of the facilities in which the inmates were confined. None of the existing studies have examined whether the potential exposure to violence-inmate maladjustment relationship is influenced by the prison environments in which inmates are confined. Related research on general population samples is also limited (Fowler et al., 2009).

Examination of the relationship between exposure to violence prior to incarceration and maladjustment to prison may improve our understanding of the inmate maladjustment process and inform the development of practical methods to reduce the problem (e.g., assessment instruments, treatment programs). Aside from these advances, however, the findings from this study may also contribute to the limited information regarding the long-term effects of exposure to violence (Fagan, 2005; Thornberry et al., 2001; Widom & Maxfield, 2001). Examination of

this relationship with an incarcerated sample also overcomes some of the concerns regarding a causal link between exposure to violence and maladjustment (see, e.g., Johnson-Reid, 1998; Lauritsen & Laub, 2007; Widom, 1989a). In particular, examination of the effect of exposure to violence prior to incarceration on maladjustment during incarceration ensures the temporal ordering of these two events and reduces concerns that exposure to violence and maladjustment are spuriously related because individuals who have been incarcerated are, for the most part, “knifed off” from the environment in which they were exposed to violence, as well as their former social networks (Lauritsen & Laub, 2007; Laub & Sampson, 2003).

Uncovering a link between exposure to violence prior to incarceration and inmate maladjustment may also offer support for some of the theories discussed above, while potentially refuting others. For instance, evidence of a relationship between exposure to violence prior to incarceration and maladjustment in prison would support hypotheses stemming from learning theories; these theories posit that exposure to violence may model violent behavior which individuals may then imitate (even after an individual is incarcerated) (e.g., Akers et al., 1979; Widom, 1989). Similarly, an observation that exposure to violence prior to incarceration increases individuals odds of maladjustment after incarceration would also support models of trauma exposure or post-traumatic stress disorder (PTSD). Individuals who are exposed to violence may suffer from mental health problems, act aggressively, or use illegal substances even in stages of their life course that are well after the traumatic event occurred (e.g., incarceration) (Ardino, 2012; Kilpatrick et al., 2003). On the other hand, if a relationship between exposure to violence prior to incarceration and maladjustment does exist, such a findings may not be taken as support for lifestyle or routine activities theories; these perspectives suggest that the link between exposure to violence and offending is explained by the overlap in

