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Predictors of suicidal ideation, suicide attempts, and self-harm without lethal intent in a community corrections sample

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ABSTRACT

Purpose: Little published research data exist about suicidal ideation and self-harm behavior in community corrections and we seek to fill this void.
Aims: To examine the effects of drug dependence, depression, anxiety, psychopathy, fracture, and child trauma on suicidal ideation, suicide attempts, and self-harm without lethal intent in community corrections.
Methods: The Semi-Structured Assessment for the Genetics of Alcoholism Revised (SSAGA II) and the screening version of the Hare Psychopathy Checklist (PCL:SV) were administered. Separate binary logistic regression analyses were used to predict lifetime suicidal ideation, suicide attempt, and self-harm behavior.
Results: Prevalences of suicidal ideation, suicide attempt, and self-harm without lethal intent were 41%, 19%, and 14%. Suicidal ideation was predicted by drug dependence, elevated PCL:SV Factor 2 score, and Caucasian race. Suicidal ideation and attempt were both predicted by fractures, depression, and child trauma. Self-harm was predicted by fractures, panic, PCL:SV score, and child trauma.
Conclusions: Child trauma and multiple fractures are potent predictors for suicidal ideation, suicide attempts, and self-harm without lethal intent in this community corrections sample. Depression predicted suicidal ideation and attempts, while panic predicted self-harm without lethal intent. Psychopathy was also an important predictor of suicidal ideation and self-harm behaviors without lethal intent.

Introduction

The main objectives of the criminal justice system include deterrence, incapacitation, retribution and rehabilitation of criminal offenders (Yang, Kadouri, Revah-Levy, Mulvey, & Falissard, 2009). Yet, as government and private mental health institutions have faded from prominence, correctional facilities (*i.e.,* jails, prisons, and community corrections) have increasingly become caregivers for people with acute and chronic mental illnesses (Suto & Arnaut, 2010; Torrey, Kennard, Elsinger, Lamb, & Pavle, 2010; Wortzel, Binswanger, Anderson, & Adler, 2009). Additional sociologic factors, such as the loss of traditional social networks and population migration, have also contributed to the increasing involvement of mentally ill individuals in the criminal justice system (Harrison & Rogers, 2007).

As the responsibility of caring for those with mental illness continues to shift from medical to correctional services, one would expect the associated risks of lethal and nonlethal self-harm behaviors to rise in correctional settings (Suto & Arnaut, 2010; Wortzel et al., 2009). In fact, several researchers have noted that self-harm behaviors, attempted suicide, and suicide are higher among correctional populations than in the general population (Bjork & Lindqvist, 2005; Jeglic, Vanderhoff, & Donovick, 2005; Joukamaa, 1998; Kenny, Lennings, & Munn, 2008; Paanila, Hakola, & Tiihonen,1999; Roe-Sepowitz, 2007). Given that the correctional system in the United States serves over 7.2 million offenders each year (Glaze, 2010), this population presents serious public health challenges. Although the vast majority of offenders are served in the community (5 million of the 7.2 million) (Glaze, Bonczar, & Zhang, 2010), most studies focus on self-injurious behavior, with and without suicidal intent, during incarceration. Few studies examine these behaviors in the context of community supervision of offenders (Wessely, Akhurst, Brown, & Moss, 1996) despite the previous finding that community offenders were at greater risk to die than prisoners (Pratt, Piper, Webb, & Shaw, 2006; Sattar, 2003).

Suicidal behavior

The correctional population is skewed toward groups demographically at risk for addiction, mental illness, and healthcare disparities. Risk factors for suicide among the general population are also operant in correctional settings, including previous suicide attempt, mental health disorders (especially depressive disorders), substance abuse and

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dependence, impulsive aggressive personality style, significant social and occupational losses, social isolation, hopelessness, physical illness, family history of suicide, and exposure to suicide in the community (Baillargeon et al., 2009; Fagan, Cox, Helfand, & Aufderheide, 2010; Miles, 1977; Sattar, 2003; Wortzel et al 2009). Offenders with mental disorders generally, and depression and personality disorders specifically, have a significantly higher standardized mortality than the general population (Kullgren, Tengstrom, & Grann, 1998). Systematic reviews indicate that recent suicidal ideation, prior suicide attempts, psychiatric illness, and alcohol abuse, have the strongest associations with suicide among incarcerated offenders (Fazel, Cartwright, Norman-Nott, & Hawton, 2008). Veteran status and post-traumatic stress disorder may confer an even greater risk of suicide in incarcerated persons than community dwellers (Wortzel et al., 2009). Prior victimization and childhood trauma also appear to increase risk for suicidal ideation and behavior (Daigle & Cote, 2006; Sarchiapone, Carli, Giannantonio, & Roy, 2009; Sarchiapone, Jaussent, et al., 2009).

Risk factors for suicide attempt following suicidal ideation include mood instability, hopelessness, clinical change in affective presentation, suicidal communication to significant others, anhedonia, panic attacks, and history of recent alcohol abuse (Fagan et al., 2010). In a New York State Department of Correctional Services study examining inmates who had some contact with mental health services during their incarceration, 84% of those who committed suicide received a mental health service within 3 days of the suicide and most had a substance abuse history, displayed agitation or anxiety, and many exhibited a behavioral change (Way, Miraglia, Sawyer, Beer, & Eddy, 2005).

Additional risk factors are unique to the situation of incarceration (Sattar, 2003). Mumola (2005), for instance, found that the suicide rates in small jails were greater than those in large jails and prisons. Among prisoners, long sentence length, detention for violent offense, and placement in a single cell may confer some risk (Fazel et al., 2008). In other samples the early period of incarceration appears to be the time of greatest risk (Sattar, 2003; Wortzel et al., 2009). Some interpersonal dynamic factors include contentious relationships with staff, over-controlled environment, and lack of contact with individuals not involved in the justice system (Suto & Arnaut, 2010). Other factors elevating suicide risk in incarcerated populations include difficult relationships with other inmates or staff, threats from other inmates, actual or anticipated segregation, bullying, violence, elevated emotional reactivity, and hypervigilance (Bonner, 2006; Suto & Arnaut, 2010). Inmates who attempted suicide were more likely to have aggression during incarceration (Sarchiapone, Carli, et al., 2009; Sarchiapone, Jaussent, et al., 2009). Common stressors preceding the suicide were adverse information such as loss of good time or disruption of family/friendship relationships in the community, inmate-to-inmate conflict, recent disciplinary action, physical illness, and fear (Way et al., 2005). However, good relationships with staff may be associated with suicide attempts of increased lethality in inmates with personality disorders owing to increased freedom (Magaletta, Patry, Wheat, & Bates, 2008).

Although protective factors are less studied than risk factors, the presence of a child, African American ethnicity, shorter sentence length, and having visits were found to be protective in samples of incarcerated persons (Baillargeon et al., 2009; Fazel et al., 2008; Perry, Marandos, Coulton, & Johnson, 2010). Although marriage mitigates risk in the general population, a recent study suggests that this may not be the case in prisoner populations (Fazel et al., 2008).

It is estimated that 95% of prisoners are eventually released from United States' correctional facilities, with most inmates reentering society after less than 2 years of confinement, resulting in a large and increasing population of former inmates and individuals involved in community corrections (Rosen, Schoenbach, & Wohl, 2008). Newly released former inmates were found to be at equal or increased risk of suicidal behavior in many (Binswanger et al 2007; Kariminia et al., 2007; Stewart, Henderson, Hobbs, Ridout, & Knuiman, 2004), but not all (Krinsky, Lathrop, Brown, & Nolte, 2009), studies. Younger offenders and women were at higher risk of death by suicide (Sattar, 2003). Caucasian, and to a lesser extent African American, inmates were at greater risk to die by suicide (Rosen et al., 2008). In a sample of newly released inmates in England and Wales, males were eight times more likely and females 36 times more likely to commit suicide than the general population, with risk factors of age greater than 25 years, release from a local prison, prior self-harm, alcohol abuse, and mental health needs requiring contact with community mental health following release (Pratt, Appleby, Piper, Webb, & Shaw, 2010). Protective factors in this study of newly released inmates included non-white ethnicity and a history of previous imprisonment (Pratt et al., 2010).

Examinations of individuals under community corrections supervision indicated that probationers and parolees had higher rates of suicide than the general population and/or prisoner populations (Biles, Harding, & Walker, 1999; Flemming, McDonald, & Biles, 1992; Pritchard, Cox, & Dawson, 1997; Sattar, 2003). Sudden non-compliance with conditions of supervision following a period of satisfactory compliance was the only finding associated with completed suicide (Biles et al., 1999). Substance use was another common finding associated with suicide among community offenders (Sattar, 2003). Regarding probationers, Wessely and colleagues (1996) reported that 31% of their sample indicated a history of deliberate self-harm, frequently with suicidal intent. The authors noted significant overlap in the risk factors for deliberate self-harm and suicide in this group including unemployment, substance abuse, lack of social supports, mental illness, and previous episodes of self-harm. Although the work of Biles et al., (1999) and Sattar (2003) suggested that younger inmates were at greater risk of death by suicide, Pritchard and colleagues (1997) examined age at the time of death and found that male probationers aged 35–44 and 45–54 had 35 times the rate of death by suicide as same-aged peers in the community compared to 9 times the rate of death by suicide for the sample as a whole aged 17–54.

Self-injurious behavior without lethal intent

Self-injurious behavior is variably referred to in the literature as deliberate self-harm, self-harm, parasuicide, and self-mutilation (Fagan et al., 2010). Self-injurious behavior is repetitious and not generally enacted with suicidal intention, though some definitions in the literature include suicide attempts (Lanes, 2009). Self-injurious behavior most commonly involves cutting the skin (C. Evren, Dalbudak, B. Evren, Cetin, & Durkaya, 2010; Lanes, 2009), but may involve other behaviors such as disembowelment, eye enucleation, degloving, amputation, castration, ingesting substances, inserting or removing objects through orifices or wounds, serious tampering with medical interventions, jumping from high places, asphyxiation, head banging, bone breaking, striking of self, and lack of self care that results in a medical crisis (Fagan et al., 2010; Lanes, 2009). Although the person completing the self-injurious act may deny suicidal intent, accidental death or significant physical injuries are potential, even if unintended, outcomes of their actions (Fagan et al., 2010; Lanes, 2009; Young, Justice, & Erdberg, 2006).

Approximately 1-4% of US adults endorse having inflicted injury on themselves at some point in their lives in order to cope with stress (Briere & Gil, 1998; Gunter, Philibert, & Hollenbeck, 2009; Klonsky, Oltmanns, & Turkheimer, 2003), but 30-50% of inmates report self-injurious behavior while incarcerated (Jeglic et al., 2005; Roe-Sepowitz, 2007). Lanes (2009) postulated that abuse and neglect during childhood, brain injury, lack of formal education, and mental illness (mood disorder or personality disorder) increased the likelihood that an individual would engage in self-injurious behavior, suicide attempts, and assaultive behavior. Self-injurious behavior may represent an