

# CONCEPTUAL AND METHODOLOGICAL CHALLENGES IN EXAMINING THE RELATIONSHIP BETWEEN MENTAL ILLNESS AND VIOLENT BEHAVIOUR AND CRIME

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## Abstract

*There is a longstanding view within the general population and the criminal justice system that the mentally ill are more prone than the mentally healthy to violence and. This view, however, is not fully supported by empirical research, in particular due to conceptual and methodological challenges that arise when the relationship between mental illness and crime is examined. This paper reviews such challenges, reviewing areas such as the 'criminalisation' of the mentally ill and the 'psychiatrisation' of criminals, as well as the complex problem of common factors, and the mediating impact of substance abuse. Specific methodological challenges are also reviewed, including problems with conducting longitudinal and randomised research in this area, and difficulties encountered in the sampling methods used.*

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Throughout history and across cultures a view has persisted that the mentally ill are particularly prone to violence and crime (Monahan, 1996). The general public consistently report that the mentally ill are more dangerous (Phelan & Link, 1998), a view which is reinforced by selective media reporting (Mulvey, 1994). This relationship has been examined since the mid 19<sup>th</sup> century (Gray, 1857). However, such research has suffered from significant methodological and conceptual problems and consequentially provides results that do not entirely support this concept (Davis, 1991). This paper will outline and explain such methodological difficulties and challenges in the definition and examination of the relationship between mental illness and crime.

### **The ‘Criminalisation’ of the Mentally Ill**

A significant problem in research into the relationship between crime and mentally ill is what has become known as the ‘criminalisation’ of the mentally ill. Abramson (1972) first noted that a large proportion of the mentally ill were being dealt with by the criminal justice system rather than mental health services. Since this initial argument, a large body of evidence suggests that the mentally ill are arrested, convicted and sent to prison in proportions that surpass their actual criminal behaviour (Council of State Governments, 2002). People who need mental health treatment are frequently being put into prison rather than hospital (Teplin, 1983). Changes in mental health policies may be responsible for this increasing contact between the mentally ill and justice systems (Lurigio & Fallon, 2007). The mentally ill are often ‘referred’ to the criminal justice system due to poor or inappropriate resources in the mental health sector (Borzecki & Wormith, 1985). This may be largely due to the ‘deinstitutionalisation’ seen in many countries in the last few decades (Whitmer, 1980), which shifted the emphasis of mental health care from psychiatric hospitalisation to community based settings, resulting in a dramatic reduction in the number of psychiatric hospital beds (Center for Mental Health Services, 2004). However this community mental health movement was never properly implemented (Shadish, 1989), resulting in an increased risk of violence by outpatients (Hodgins, 1994). As a result of deinstitutionalisation, the mentally ill increasingly come into contact with the police and courts, thus inflating the apparent relationship between crime and mental illness.

A number of largely political factors also indirectly increase the representation of the mentally ill in the criminal justice system, with mental illness consequently complicating rather than causing their involvement (Draine, 2003). The ‘war on drugs’ in the U.S. has played a large role (Lurigio & Swartz, 2000), as it has led to increased arrest and conviction for drug related offences (Beck, 2000), resulting in an increased proportion of the mentally ill in prisons (Swartz & Lurigio, 1999; Goldkamp & Irons-Guynn, 2000). Another important factor is the role of police tactics. The recent emphasis by the western world on ‘zero-tolerance’ and ‘quality of life’ policing has led to increased arrest for minor offences such as disturbing the peace and loitering, to which the mentally ill are more prone (Fagan & Davies, 2000). Public-order policing has essentially led to patients being arrested for their symptoms (Ditton, 1999), as many of the symptoms of mental illness are behaviours considered to be antisocial or criminal (Cauffman et al., 2005). Mental illness elevates the risk of arrest as detection and subsequent calls to the police are more likely in those with such problems (Hirschfield et al., 2006), with the arrest rate being 67 times high for those

demonstrating symptoms of mental illness (Teplin, 2000). There is also a bias in convictions, as the mentally ill are more likely to be charged with misdemeanours than are the mentally healthy (Lamberti et al., 2001), and spend a longer time in jail for similar crimes (McNiel, Binder & Robinson, 2005). The mentally ill are also less likely to understand their interrogation rights, and consequently are more prone to false confessions (Redlich, 2004). Reforms in policies and laws around mental health treatment have made it increasingly difficult to section the mentally ill, which increases the likelihood that they will be arrested 'by default' (Davis, 1992). For example, institutions such as schools, unsure what to do, may call the police to deal with emotionally disturbed adolescents (Rice, 2003). These factors have combined so that in the U.K., 20% of mentally ill prisoners have been rejected for treatment by the National Health Service prior to conviction (Coid, 1988). As a result there is a considerable 'flow' of individuals between the mental health and criminal justice systems (Holley & Arboleda-Flórez, 1988). Furthermore, the criminal justice system experience may worsen mental health problems (Lurigio, Fallon & Dincin, 2000), further increasing such a flow. This becomes a problem for researchers, as it becomes difficult to define and study the relationship, with so many indirect mechanisms by which the mentally ill are over-represented in the criminal justice system.

### **The 'Psychiatrisation' of Criminals**

An important point is what has been referred to as the 'psychiatrisation' of criminals. Bad behaviour is often viewed as a symptom of psychological disorder (Flew, 1954), and for many decades it has been argued that all criminals are 'sick' (Silber, 1974), and that crime is a symptom of disease (Flew, 1954). As Menninger (1928) put it "The time will come, when stealing or murder will be thought of as a symptom, indicating the presence of a disease". It has also been argued that the psychiatry is often abused in the area of crime; in the Soviet Union, and still today in China, psychiatry has been used to 'imprison' political dissidents (Gunn, 2006). It has been argued that the high levels of mental illness in prisons is largely due to the 'psychiatrisation' of criminality (Davis, 1992; Anderson, 1997), and that psychiatric concepts are commonly applied to convicted individuals due to ethical and social values rather than medical considerations (Silber, 1974). As a result, the links between the two may simply be a product of how the mentally ill and criminals are treated by such services (Wessely & Taylor, 1991). For a number mental disorders such as borderline personality disorder, sadism and intermittent explosive disorder, violent behaviour is one of the key diagnostic symptoms, and such psychiatric conceptualisations of violence as a key symptom may be increasing over time (Harry, 1985). The symptoms of specific mental illness may directly include crime or delinquency, for example in conduct disorder or oppositional defiant disorder. A particularly important diagnosis is 'Anti Social Personality Disorder' (ASD), as ASD is the most common diagnosis in prisoners (Henn, Herjanic & Vanderpearl, 1976). ASD has in particular being criticised, with there being controversy over whether it constitutes a mental illness per se (Bursten, 1982), and many suggesting that it is no more than a moral judgement given as a diagnostic label (Blackburn, 1998). Such research suggests that crime is increasingly being labelled as mental illness, making it a considerable challenge for researchers to distinguish between the two, and subsequently to examine their relationship.

### **Common risk factors**

There are a number of common factors shared by both criminal and psychiatric patients, which may explain correlations between mental illness and crime. Demographic variables such as age, socio-economic status and race predict both arrest (Brownfield, Sorenson & Thompson, 2000; Beckett et al., 2005), and mental illness (Costello et al., 1998). Individuals with personality disorders share a number of common factors with criminals, usually being young men, poorly educated, unemployed, and having a deprived upbringing and disorganised home environment (Morissette, 1986). Research has consistently shown that any associations between mental disorder and criminal behaviour disappear once variables such as education and age are controlled for statistically (Abram & Teplin, 1990). Monahan & Steadman (1983) argued that relationships between the two can be accounted for almost entirely by shared demographic factors. In essence, the mentally ill are prone to the same factors which predict criminality in the mentally healthy (Wessely, 1993). Accounting for such factors is a considerable challenge in researchers trying to establish causality. There are also a number of factors which predict crime and violence in the mentally ill. Violence prior to admission to a hospital is associated with violence after discharge, as is male gender, age, increased length of stay and cognitive impairment (Shah, Fineberg & James, 1991). Violence whilst in hospital is also related to overcrowding and incompetent staff (Shah, Fineberg & James, 1991). A number of studies have found that in the mentally ill, prior criminal history predicts recidivism upon release (Teplin, Abram & McClelland, 1994), and consequently it has been argued that once criminal behaviour has begun, the most accurate predictor of future crime is criminal history (Anderson, 1997), regardless of whether an individual is mentally ill (Bonta, Law & Hanson, 1998). Studies have found that the relationship between crime and mental illness disappears entirely once previous convictions are accounted for (Abram & Teplin, 1990; Wessely & Taylor, 1991; Feder, 1991). Research suggests that the mentally ill may only be more prone to violence if they receive inadequate treatment (Hodgins, 1998), have a long-standing paranoid attitude (Arseneault et al., 2000), and are actively experiencing delusions (Taylor & Estroff, 2003). Many psychiatric medications used to treat mental illness may also increase the risk of violence (Menuck, 1983). Other risk factors for criminality and violence in the mentally ill include homelessness (McNiel, Binder & Robinson, 2005; Martell, Rosner & Harmon, 1995), family dysfunction and conflict with violent parents (Rowley, Ewing & Singer, 1987; APA, 1994), being raised by a mentally ill parent (Lewis et al., 1985) and having a history of physical abuse (Vander Stoep, Evens & Taub, 1997). Further factors that predict recidivism in psychiatric patients include a lack of responsibility, narcissistic personality, poor treatment compliance and low levels of impulse control and affect regulation (Philipse et al., 2004; Nestor, 2002). Such factors pose a significant problem in research in the area, as they must be controlled for appropriately. Furthermore, there appears to be disagreement over whether such factors are casually relevant, and therefore should not be controlled for statistically (Monahan, 1993).

### **Substance abuse**

An important consideration is the impact of substance abuse. Long-term substance abuse is an independent risk factor for violence (Hodgins, 1992), and a diagnosis of a substance abuse disorder places individuals at risk of violence more than any other

major mental illness (Swanson et al., 1990). Substance abuse and dependence significantly increases the likelihood that a mentally ill individual will become violent (Newhill & Mulvey, 2002). Swanson et al. (1993) found that in those with a major mental disorder, co-morbid substance abuse increased the risk of violence four fold. Substance abuse is frequently co-morbid with a variety of mental illnesses (Abram, 1990; Regier et al., 1990), and levels of co-morbidity appear to be elevated in mentally ill offenders (Hiller et al., 1996; Lamb & Grant, 1982). Mentally ill prisoners tend to use drugs (Teplin, 1991), and substance abuse disorders are the most common diagnosis in prison (Arboleda-Flórez, 1994). Smith & Newman (1990) suggest that elevated substance abuse in psychopaths largely explains related violent crime. Co-morbid substance abuse may not only increase the risk of violent crime in the mentally ill, but may account for the relationship entirely, as studies have found that increased violent crime in the mentally ill is limited to those with a history of alcohol and/or drug abuse (Swartz et al., 1998; Munetz, Grande & Chambers, 2001). Controlling for such substance abuse in research should therefore be a priority for researchers. Substance abuse further complicates research, as there is debate as to whether a substance abuse disorder should be included as a mental illness. Furthermore, the fact that co-morbidities may increase police contact (Brown et al., 1989) and the impact of substance abuse on the course of mental illness (e.g. Goldberg et al., 2001) complicates matters further.

### **Specific methodological challenges**

There are a number of specific methodological issues in this area of research, which has traditionally suffered from methodological difficulties (Link & Stueve, 1995). Studies have varied in experimental designs, sample size, length of follow-up, diagnostic categories examined, outcome measures, use of controls group, and level of control of demographic and environmental factors (Mulvey, Blumstein & Cohen, 1986; Hodgins, 2001). One significant problem is that this area draws together the disciplines of psychiatry and criminology; two disciplines which differ greatly in their methodology (Mullen, 1992). Methodological challenges include a lack of comparability of studies over different countries and times (Hodgins, 2001), and inadequate control of confounds, small sample sizes, and poor differentiation between diagnoses (Cohen, 1980). Measurement problems are also relevant including the over-reliance on arrest rates and their associated poor reliability (Davis, 1991), difficulties with secondary data such as medical records (Gunn, 1977), problems with under-reporting (Swanson et al., 1990), and poor validity of self-reported crime and delinquency (Jolliffe et al., 2003). Three specific methodological issues are particularly relevant to the area; randomised vs. quasi-experimental designs, longitudinal vs. cross-sectional designs, and sampling methods.

### **Randomised vs. quasi-experimental designs**

An important issue is whether randomised control trials (RCTs) are the only designs which should be used, or whether quasi-experimental designs are appropriate. This is particularly important in forensic psychiatry research, where RCT methodologies can be problematic (Ferriter & Huband, 2005), as randomisation is not possible in many criminal or mental health settings. For example, it is neither ethical nor practical to place psychiatric patients in a jail or a community setting, and then compare recidivism rates. As a result, in particular in research on prisoners with mental illness,

very few RCTs have been carried out (Brooker et al., 2003). Quasi-experimental designs, however, have been found to exaggerate treatment effects (Kunz & Oxman, 1998), and therefore using this method may over-state the impact of mental illness on the risk of criminal behaviour. Statistical methods can decrease the biasing effects of non-random assignment, such as propensity score weighting (Rosenbaum & Rubin, 1983), and it has been argued that non RCTs produce largely similar results to RCTs (Ferriter & Huvand, 2005). However, there is little disagreement that RCTs are preferable to quasi-experimental designs; but that they are very difficult to conduct in forensic mental health settings.

### **Longitudinal vs. cross-sectional research**

Another methodological controversy is whether longitudinal or cross-sectional designs are preferable. In a cross-sectional design it is impossible to determine temporal order and therefore causality. For example, Swanson et al. (1990) cross-sectionally studied mental illness and violence, finding a correlation, however the temporal ordering of these factors could not be determined, and hence causality is unclear. Longitudinal research is therefore generally considered to be preferable. However, there are a number of difficulties with using this method, in particular that of subject attrition. Subject attrition reduces statistical power, and threatens both internal and external validity (Flick, 1988). Subject loss may often be directly related to criminal behaviour, for example being in prison and therefore unavailable for follow-up (Hodgins, 2001). Furthermore, participants contact difficulty and refusal has been linked to factors such as socio-economic status, substance abuse and race (Fischer et al., 2001; Badawi et al., 1999), all of which are also related criminal behaviour. Research in the area has used both longitudinal and cross-sectional designs, each of which has specific problems. As a result controversy still exists over which design is the most appropriate.

### **Sampling methods**

A final relevant methodological challenge relates to the sampling method used. Sample sizes have ranged from 310 to nearly 100,000 in research on mental illness and crime (Rabkin, 1979). Many studies have not randomly sampled a full range of offenders, and often use specific populations, such as sex offenders (Packard & Rosner, 1985), often without comparing them to a control group. A number of studies focus on institutionalised patients, which may be biasing results, as those who are institutionalised are likely to be more severely ill (Johnson et al., 2000), and may have a greater potential for violence than those in the community (Monahan & Steadman, 1983). This is particularly problematic as one of the most common reasons for a patient being sectioned is violence (Binder & McNeil, 1986), and very violent patients are more likely to be kept in an institution (Quinsey & Maguire, 1986). Even within studies of hospitalised patients, there may be considerable variations in admission and discharge criteria in different hospitals (Hodgins, 2001). A similar problem may occur in studies of mental illness in prisons, as those incarcerated may represent a sub-population of the mentally ill who are particularly prone to violence (Monahan, 1993). Whilst studies of the mentally ill in institutions and prisons makes up the vast majority of research in the area, this method systematically excludes both the majority of the mentally ill, and the majority of criminals (Gunn, 1977).

## **Conclusion**

In conclusion, there are a large number of methodological challenges which researchers face in defining and studying the relationship between mental disorder and crime. Indirect factors which result in conceptual and methodological challenges include the 'criminalisation' of the mentally ill and the 'psychiatrisation' of criminals, which may result in an overestimation of the relationship. Common risk factors for crime shared by the mentally ill and criminals make definitions hard to conceptualise. Factors which influence the risk of violence in the mentally ill, and the mediating impact of substance abuse further complicate matters. Specific methodological problems in the area include the problems with quasi-experimental designs and the challenges of conducting randomised control trials, problems with conducting cross-sectional and longitudinal research into the area, and biases in sampling method used. As a result of these challenges, the simple research question being posed: 'Are the mentally ill more prone to crime?' is one that is still surrounded by controversy.

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