

Nature and antecedents of psychotic patients' crimes

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ABSTRACT Psychiatric and criminal backgrounds of 111 forensic patients suffering from Axis-I psychotic disorders were compared with those of 197 non-psychotic offenders residing in the same forensic psychiatric hospitals in Germany and the Netherlands. When compared with non-psychotic offenders, psychotic offenders were more often first-time offenders who had committed severe physical assaults. Often these assaults were targeted at intimates. Sexual crimes were relatively rare among psychotic offenders. Of the 111 index offences committed by psychotic patients, 33 (30%) had fatal consequences. In all these cases, the psychotic offender had known the victim beforehand. Remarkably, the 33 psychotic patients who committed crimes with fatal consequences had *fewer* previous arrest records, had a *late* onset of criminal activity, and were *less* often addicted than psychotic patients whose offences did not cause someone's death. It is concluded that, although psychotic forensic patients commit severe crimes, the probability of their committing a serious sexual offence appears to be low (compared with non-psychotic forensic patients). Also, it was found to be highly unlikely for psychotic offenders to murder complete strangers. The subgroup of psychotic offenders committing crimes with fatal consequences may be hard to identify and to make timely intervention in, precisely because such offenders often lack a history of criminally deviant behavior.

Keywords: psychosis, schizophrenia, violence, crime, forensic psychiatry

Patients suffering from major mental disorders are found to be more likely to commit violent crimes (Hodgins, Mednick, Brennan, Schulsinger and Engberg, 1996; Hodgins, 1992), although co-occurring alcohol and drug abuse may partially account for this association (Steadman *et al.*, 1998; Monahan *et al.*, 2001). In Europe, about 10% of homicides are committed by people suffering from psychotic disorders (Taylor and Gunn, 1999). Not surprisingly, a substantial proportion of patients residing in forensic psychiatric hospitals are suffering from psychotic disorders. In contrast to many other countries, however, in German and Dutch forensic psychiatric populations, offenders with (cluster B) personality disorders clearly outnumber those with psychotic disorders (e.g. Emmerik, 2001).

Several studies have provided detailed information about the specific nature and characteristics of crimes committed by psychotic patients (e.g. Taylor, Leese, Williams, Butwell, Daly and Larkin, 1998; Nestor, Haycock, Doiron, Kelly and Kelly, 1995; Gottlieb, Gabrielsen and Kramp, 1987; Dolan and Parry, 1996; Leong and Silva, 1995; Nestor and Haycock, 1997). These studies did show rather consistently that schizophrenic offenders tend to victimize persons they are close to; for example, parents (Nestor, Haycock, Doiron, Kelly and Kelly, 1995, Gottlieb *et al.*, 1987; Dolan and Parry, 1996; Nestor and Haycock, 1997).

Studies addressing the types of crime committed by psychotic patients, however, also have come up with results that (apparently) are difficult to reconcile. A case in point is the association between psychosis and sexual offending. Several case-series studies (Craissati and Hodes, 1992; Smith and Taylor, 1999) of psychotic patients committing severe sexual crimes, may leave the impression that schizophrenia and sexual offending are strongly associated each with the other. Empirical research, relying on a solid case-control design (e.g. Modestin and Ammann, 1996), however, suggested that the link between psychosis and sexual offending is weak, or even non-existent. In that study, the criminal histories of 282 psychotic patients were compared with those of matched controls from the general population. Interestingly, nearly all types of offence, including severe physical assaults, were more prevalent among psychotic patients, except for traffic law violations and sexual offences (Modestin and Ammann, 1996).

In line with this, Taylor *et al.* (1998) found that sexual offending was a relatively rare reason for involuntary admission of patients with pure psychoses to high-security hospitals in the UK. Apart from that, it was recently shown that, although 93% of pedophilic patients suffer from comorbid Axis-I psychiatric disorders, psychosis appears to be rare among them (Raymond, Coleman, Ohlerking, Christenson and Miner, 2000). To be more precise, of 45 intensively tested pedophilic sex offenders, one fulfilled the criteria of a psychotic disorder (i.e. schizoaffective disorder). Clearly, the issue of whether or not there exists a specific association between sexual

offending and psychosis is important. Empirical knowledge about this issue may, for instance, be helpful in selecting likely suspects of sexual crimes. Thus, systematic and large-scale studies addressing the nature of crimes, but also the 'choice' of victims by certain patient categories, may inform not only mental health policy, but also the branch of forensic science that is known as criminal personality profiling (e.g. McCann, 1992).

The current study sought to investigate types of crime and of victim most likely connected to psychotic offenders. To this end, backgrounds (e.g. childhood, educational career, psychiatric and criminal histories) of psychotic forensic patients were compared with those of non-psychotic control patients. Apart from that, the current study also explored whether psychotic patients committing the most severe offences (i.e. crimes with *fatal* consequences) have specific psychiatric and criminal antecedents, distinguishing them from the other psychotic offenders who did not cause someone's death.

MATERIALS AND METHODS

From patient files of one forensic psychiatric hospital in Düren (Germany) and one forensic psychiatric hospital in Poortugaal (the Netherlands), demographic, psychiatric and criminal background variables were derived. In total, files of 308 male psychiatric offenders were analyzed: 180 patients from the German (58%) and 128 from the Dutch hospital (42%). The German sample consisted of all patients residing in the forensic psychiatric hospital on 1 January, 2002. The Dutch sample consisted of all consecutive admissions to the forensic psychiatric hospital De Kijvelanden from its opening day onwards (1 November, 1996). This Dutch forensic psychiatric hospital has a total of 92 beds.

Information about psychiatric history, family background, education, intelligence, psychiatric history, number of previous convictions, age at first conviction to serve time, and nature of the offence leading to the current incarceration (i.e. index offences), as well as the relationship between offender and the victim(s), were recorded and analyzed.

With univariate tests (i.e. *t*-tests and χ^2 - tests), we examined the following two issues.

- (1) *To what extent did patients with a DSM IV psychotic disorder (n=111) differ from non-psychotic patients residing in the same institutions (n=197) with regard to a number of background variables?* Axis-I psychotic disorders included schizophrenia (n=59), psychotic disorders not otherwise specified (n=30), substance-induced psychotic disorders (n=7), schizoaffective dis-

orders (n = 6), delusional disorders (n = 6), psychotic disorders due to medical conditions (n = 2), and schizophreniform disorder (n = 1). Both in the German sample and in the Dutch sample, these diagnoses were derived from psychiatrists' reports that are used to advise the court about the psychiatric condition of the patient, and the extent to which the patient may be held accountable for committing the offence. These diagnoses were established after extensive investigation of the patient.

- (2) *Within the psychotic sample (n=111), did psychotic patients committing crimes with fatal consequences (n=33) differ in terms of background variables from psychotic offenders who did not cause someone to die (n=78)?* Thus, it was investigated whether psychotic patients who actually killed someone had certain characteristics distinguishing them from psychotic offenders who committed crimes without fatal consequences. More specifically, differences in criminal history (previous convictions and age at first conviction), psychiatric history (previous psychiatric treatment and addiction problems), and 'choice' of victims were investigated.

Because of the relatively large number of exploratory tests (i.e. 20) in the current study, we employed Bonferroni-corrected alpha levels. For all analyses, alpha was set at 0.0025 (i.e. 0.05/20), two-tailed.

RESULTS

Characteristics of the sample

Mean age of the sample at admission was 34.3 (SD = 9.6). A third of the 308 patients (i.e. 103 patients or 33%) were incarcerated for (attempted) murder/manslaughter. In 9 of these 103 cases, crimes involved both murder and sexual assault. Sexual offences (without homicide) were committed by 86 patients (28%). Other prevalent legal reasons for involuntary admission to forensic hospitals were severe physical violence/manhandling (42 patients or 14%) and arson (28 patients or 9%).

A majority of the patients (i.e. 236 patients or 77%) had been previously convicted (i.e. before being sentenced for the index offence). On the average, recidivists had been sentenced to serve time 4 times before (SD = 4.5; range: from 1 to 26 previous convictions).

As mentioned earlier, 111 of the 308 patients (36%) were diagnosed with a DSM IV Axis-I psychotic disorder, of which schizophrenia (n = 59) was most prevalent. In the control sample of 197 non-psychotic patients (64%), cluster B personality disorders were the most common diagnoses. More

specifically, 138 of the 197 non-psychotic patients (70%) were diagnosed as having cluster B personality disorders, of which 75 were deemed to be anti-social, 28 borderline and 18 narcissistic, and 17 had mixed cluster B personality disorder conditions. Unspecified personality disorders ($n=24$), and cluster A and C personality disorders ($n=10$), were also prevalent in the control group.

Differences in backgrounds of psychotic and non-psychotic offenders

In Table 1, the 111 patients suffering from psychotic disorders are compared with those of the 197 non-psychotic forensic psychiatric patients with regard to their background variables.

As can be seen, 94 of the 111 psychotic patients (85%) were raised by their (grand)parents, whereas this was true for 119 of the 197 non-psychotic patients (60%). Thus, a history of foster homes and institutions was more prevalent among non-psychotic patients. Similarly, the vast majority of psychotic patients (i.e. 77%) finished high school, whereas this was true for only 56% of non-psychotic offenders. For 201 of the 308 patients (65%), intelligence coefficients (IQ) were specified, which were mostly obtained by using either the German or the Dutch version of the Wechsler Adult Intelligence Scale (WAIS; Wechsler, 1991 [German version]; Stinissen, Willems, Coetsier and Hulsman, 1970 [Dutch version]). For 42 patients in the psychotic group and 96 patients in the non-psychotic group, the files also provided details about the distribution of verbal vs performance IQ.

The overall mean IQ of psychotic patients did not differ from that of non-psychotic forensic psychiatric patients. This suggests that overall IQ levels cannot account for differences in academic careers. It should be noted, though, that IQ scores were available for only 201 of the 308 patients. Psychotic patients had lower performance than verbal IQ, whereas non-psychotic offenders exhibited the opposite pattern. A 2 (psychotic versus non-psychotic offenders) \times 2 (performance versus verbal IQ) Analysis of Variance with repeated measures on the last factor yielded a significant interaction of group and IQ type, but it should be noted that only for 138 patients were verbal and performal IQ levels both specified (see Table 1).

In terms of treatment history, psychotic patients relatively often had received psychiatric treatment before the index offence took place. Of the 111 psychotic patients, 86 (77%) had already received psychiatric treatment previously, whereas this was the case for 84 of the 197 non-psychotic forensic patients (43%). In both groups, about half of the patients were judged to have a history of alcohol and/or substance abuse.

For 41 of the 111 psychotic patients (37%), the index offence was the first offence for which the patient was sentenced. In the non-psychotic control group, the proportion of 'first offenders' was substantially lower (16%),

Table 1 Backgrounds and characteristics of psychotic offenders ($n = 111$) and non-psychotic offenders ($n = 197$)

<i>Characteristic</i>	<i>Psychotic offenders (n = 111)</i>	<i>Non-psychotic offenders (n = 197)</i>	<i>Test statistics</i>
1 Raised by (grand)parents	94 (85%)	119 (60%)	$\chi^2 (1) = 19.4, p = 0.000^*$
2 Finished high school	86 (77%)	111 (56%)	$\chi^2 (1) = 13.8, p = 0.000^*$
3 Mean IQ	91.5 (SD = 18.3) ($n = 66$)	93.7 (SD = 16.3) ($n = 135$)	$t (199) < 1.0, p = 0.396$
4 Distribution verbal/ performance IQ	Verbal IQ = 94.8 Performance IQ = 91.7 ($n = 42$)	Verbal IQ = 91.2 Performance IQ = 98.2 ($n = 96$)	$F(1, 136) = 16.4, p = 0.000^*$
5 Received psychiatric treatment in the past	86 (77%)	84 (43%)	$\chi^2 (1) = 34.8, p = 0.000^*$
6 Substance abuse	58 (52%)	98 (50%)	$\chi^2 (1) = 0.18, p = 0.67$
7 First offender	41 (37%)	31 (16%)	$\chi^2 (1) = 17.8, p = 0.000^*$
8 Age at index incarceration	34.8 (SD = 9.4)	34.0 (SD = 9.8)	$t (306) = 0.68, p = 0.50$
9 Age at first conviction to serve time	25.4 (SD = 9.0)	21.5 (SD = 6.9)	$t (306) = 4.3, p = 0.000^*$
10 Sexual crime (index-offence)	9 (8%)	77 (39%)	$\chi^2 (1) = 33.8, p = 0.000^*$
11 Aggravated assault/ manhandling (index offence)	27 (24%)	15 (8%)	$\chi^2 (1) = 16.8, p = 0.000^*$
12 (attempted) murder/ manslaughter (index offence)	46 (41%)	57 (29%)	$\chi^2 (1) = 5.0, p = 0.025$
13 Proportion of index offences having fatal consequences for victim(s)	33 (30%)	46 (23%)	$\chi^2 (1) = 1.5, p = 0.22$
14 Victim known to offender	77 (69%)	87 (44%)	$\chi^2 (1) = 18.1, p = 0.000^*$

Note *significant beyond the Bonferroni-corrected level ($p < 0.0025$)

although the two groups did not differ in average age at admission (see Table 1). The age at first conviction, however, was significantly higher for psychotic patients than for non-psychotic patients, with mean ages of onset being 25.4 and 21.5 years, respectively.

Types of crime leading to current incarceration differed between psychotic and non-psychotic offenders. To begin with, psychotic patients were clearly less often convicted for sexual crimes. More specifically, 9 of the 111 psychotic patients (8%) were sentenced for sexual offences, compared with 77 of the 197 non-psychotic patients (39%). When the 9 cases in which victims were both sexually abused and killed were included, the difference between the two groups became more pronounced. That is, 10 psychotic patients (9%) were involved in any sexual crime (whether fatal or not) compared with 85 of the 197 non-psychotic patients (43%).

As a group, psychotic patients were more often convicted for severe physical violent acts against persons, without clear financial (e.g. robbery) or sexual motives (e.g. rape). To be precise, 24% of psychotic patients were incarcerated as a result of aggravated assault, compared with 8% of the non-psychotic patients. Although psychotic patients tended also to have been convicted more often for killing, or attempting to kill, someone, this difference was not significant beyond the Bonferroni-corrected level. In line with this, the proportion of index offences with fatal consequences was not higher in the psychotic patient group, as compared with the non-psychotic patients. Overall, about a quarter of the index offences committed by the total sample of 308 patients (i.e. 79 of 308 or 26%) had fatal consequences for one (or more) victim(s).

Finally, Table 1 shows that psychotic patients primarily victimized persons whom they knew beforehand. In Figure 1, the nature of the relationship between offender and victim(s) is presented in more detail. First-degree relatives appear to be likely victims of the offences conducted by the psychotic patients.

Backgrounds of psychotic patients committing crimes with fatal consequences, compared with psychotic offenders who did not cause someone to die

To explore whether psychotic patients who committed crimes with fatal consequences ($n=33$) represent a specific subgroup within the total sample of psychotic offenders ($n=111$), separate analyses were performed on a selection of characteristics (see the section on materials and methods). In Table 2 the results are summarized.

Interestingly, the 33 psychotic patients who actually took the life of someone, were *less* often criminal recidivists, started offending *later* in life (30 years on average), and were *less* often abusing alcohol or drugs at the

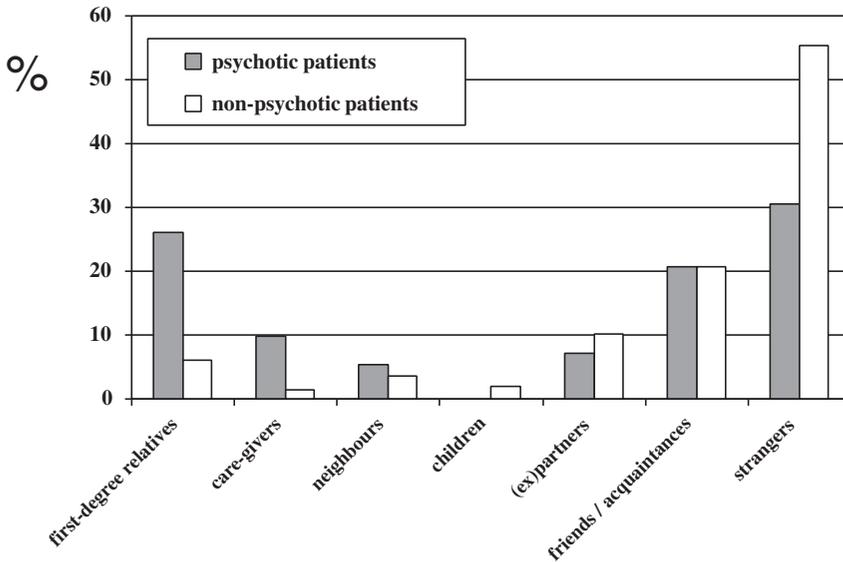


Figure 1 Types of relationship between offenders and victim(s) for the psychotic group ($n = 111$) and for the non-psychotic group ($n = 197$)

Table 2 Backgrounds of psychotic patients committing crimes with fatal consequences ($n = 33$)¹ compared with psychotic offenders who did not cause someone to die ($n = 78$)

Characteristic	Lethal psychotic offenders ($n = 33$)	Non-lethal psychotic offenders ($n = 78$)	Test statistic
1 Received psychiatric treatment in the past	28 (85%)	58 (74%)	$\chi^2 (1) = 1.5, p = 0.227$
2 Substance abuse	9 (27%)	49 (63%)	$\chi^2 (1) = 11.7, p = 0.001^*$
3 First offender	22 (67%)	19 (24%)	$\chi^2 (1) = 17.8, p = 0.000^*$
4 Age at first conviction	30.0 (SD = 11.4)	23.5 (SD = 7.1)	$t (109) = 3.6, p = 0.000^*$
6 Victim known to offender	33 (100%)	44 (56%)	$\chi^2 (1) = 20.7, p = 0.000^*$

Key ¹With 'crimes with fatal consequences', all offences resulting in someone's death are meant, regardless of the type of offence committed.

*significant beyond the Bonferroni-corrected level ($p < 0.0025$)

time of the index offence. In fact, almost three-quarters of psychotic patients committing offences with fatal consequences, were not abusing alcohol or drugs at the time they committed their serious crime. Furthermore, the 33 psychotic patients who committed fatal crimes did not turn out to have had psychiatric treatment more often before committing the index offence at a rather late age, but the proportion that had been in treatment previously was high in this group (i.e. 85%; see Table 2). Finally, it should be noted that all fatal victims had known their psychotic offenders beforehand.

DISCUSSION

The current study revealed several pronounced differences in backgrounds and types of crimes committed by psychotic and non-psychotic offenders. Due to clear restrictions of the present study, however, these findings need to be interpreted with caution. For instance, the current study relied on a selected group of psychiatrically disordered offenders sentenced to compulsory admission in two forensic psychiatric hospitals, one of which was Dutch and the other German. Furthermore, a relatively high number of tests (20) was conducted on a limited group of patients. For this reason, however, Bonferroni correction was employed, resulting in a conservative alpha (0.0025, two-tailed). With these backgrounds and limitations in mind, the main results of the present study can be catalogued as follows.

To begin with, compared with non-psychotic forensic psychiatric patients, psychotic patients appeared to have had less disruptive childhoods. That is to say, psychotic patients had been raised more often by their (grand)parents and reached a higher level of education in general, although the available test results suggested that overall IQ level was rather similar in both groups. In the (mainly cluster B disordered) control group, however, performance IQ was higher than verbal IQ, whereas in the psychotic patient sample, the opposite pattern was found. This difference may be connected to the disruptive childhoods and educational disadvantages of patients in the control group. Alternatively, however, it may point to more structural neuropsychological differences in brain mechanisms of personality disordered versus psychotic offenders. Hare and Jutai noted earlier that psychopaths appear to have 'fewer left hemisphere resources for processing language' (1988: 329). In the current study, patients with anti-social and psychopathic features will generally have been assigned to the control group.

Secondly, as far as criminal activity is concerned, psychotic patients appeared to be first offenders more often, even though the average age at the current admission was the same in both groups (see also Dolan and Parry, 1996). Psychotic patients significantly more often had an index conviction

pertaining to severe violence (e.g. aggravated assault, manhandling) than non-psychotic patients, but the proportion of crimes classified as (attempted) homicide did not differ significantly in both groups (after Bonferroni correction). Psychotic patients were significantly less often involved in sexual crimes (see also Modestin and Ammann, 1996; Taylor *et al.*, 1988). Therefore, patients with Axis-I psychotic disorders may be rather unlikely suspects for criminal investigations of rape, when compared with non-psychotic forensic patients.

Thirdly, closely related persons were often the target of psychotic patients' offences. In other words, compared with non-psychotic control patients, psychotic patients less often victimized strangers, and none of the psychotic patients in the current study caused the death of a completely unrelated person. This suggests that by spending a substantial amount of time in the personal realm of the psychotic offender, the victim may become important enough to play a key role in his paranoid delusions (see also Nestor *et al.*, 1995). However, the association between specific (paranoid) delusions and violence may not be as straightforward as sometimes is assumed. Although several researchers have found (or suggested) that persecutory, paranoid delusions (see Nestor *et al.*, 1995; Taylor *et al.*, 1998), and imperative auditory hallucinations (Junginger, 1990, 1995; Taylor *et al.*, 1998) are linked to violence, the MacArthur risk assessment study (Monahan *et al.*, 2001) did not reveal a positive correlation between delusions and violent behavior later on after discharge. The authors, however, state that these findings 'should not be taken as evidence that delusions never cause violence. It is clear from clinical experience and from many other studies that they can and do' (Monahan *et al.*, 2001: 77).

Fourthly, compared with the 78 psychotic patients who had not committed crimes with fatal consequences, the 33 psychotic patients who did cause someone's death turned out to have fewer previous arrest records and a late onset of criminal activity. A similar trend was found in the study of Nestor and colleagues (1995). Interestingly, the psychotic offenders that committed crimes with fatal consequences, were also found to be less often addicted at the time of their serious crime in the present study. This is noteworthy since substance abuse generally is found to be involved in raising the risk of violent behavior in mentally disordered patients (e.g. Steadman *et al.*, 1998; Monahan *et al.*, 2001). On the basis of these findings, the question arises whether psychotic offenders who kill someone may in one way or the other form a specific subgroup of psychotic patients, characterized by a late, but rather sudden, onset of specific dangerous delusions and violence. One way or the other, the relative lack of warning signals – in terms of criminal and addictive behavior – may make it hard to identify and to intervene in time in this dangerous subgroup. In fact, the psychotic offenders who committed crimes with fatal consequences may

have appeared to be doing relatively well from the outside, but apparently were harboring dangerous thoughts about related persons; each of the victims killed by the psychotic patients in the current study knew the offender. It is noteworthy that the vast majority of psychotic offenders who committed crimes with fatal consequences had received some form of psychiatric treatment before committing their offences (i.e. 85%). Although this proportion did not substantially differ from that found in the other, non-fatal psychotic offenders (i.e. 74%), it is tragic that, in spite of being treated previously, these patients still committed crimes with fatal consequences later on.

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