Psychiatric disorders and personality characteristics of prisoners at regular prison wards

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ABSTRACT

Background: Dutch correctional officers are trained to observe prisoners with severe mental disorder. This 'behavioural' approach is assumed to detect psychiatrically disordered prisoners with striking symptoms. On the basis of this screening procedure about 10% of the Dutch prison population is classified as needing special care or control. In the current study, what psychopathology can still be found among the remaining 90% prisoners residing at regular wards is investigated and which personality traits characterize them. When the prevalence of major mental illness would still turn out to be high in this group, the question arises whether the current, rather unstandardized, way of screening prisoners is sufficient.
Aims: To assess the prevalence of psychiatric disorders among adult Dutch prisoners on regular wards, and to determine the concurrent and convergent validity of self-report measures and their screening characteristics in such a sample.
Method: 191 randomly selected prisoners admitted to the general wards were administered a number of tests (SCL-90, NEO-PI-R, MINI) during the first weeks of their incarceration.
Results: Including substance abuse, 57% of the participants suffered from one or more Axis I disorders. About seven out of ten detainees with psychopathology as assessed with the MINI did not receive professional help. The concurrent and convergent validity of the SCL-90 and the NEO-PI-R turned out to be reasonable. The predictive validity of self-report measures in detecting prisoners with an Axis I disorders or suicide risks was moderate.
Conclusions: The Dutch 'behavioural approach' seems to be quite accurate in detecting prisoners with psychotic disorders. Most prisoners with other mental disorders on regular wards, however, did not receive professional help. The current study suggests that self report scales such as the SCL-90 and the NEO-PI-R may be helpful in screening detainees on important DSM-IV disorders.

1. Introduction

Psychiatric disorders are prevalent among prison inmates. Fazel and Danesh (2002) systematically reviewed 62 studies on the prevalence of major psychiatric disorders among delinquents: 10% suffer from major depression and about 4% have psychotic illnesses. Apart from that about 65% have a personality disorder, which commonly is an antisocial personality disorder (i.e., 47%, on average). In the studies included in the review of Fazel and Danesh (2002), the diagnoses mainly were obtained by means of structured diagnostic interviews performed by clinicians, such as the Diagnostic Interview Schedule (DIS), the Structured Clinical Interview for the Diagnostic and Statistical Manual (SCID), and the Present State Examination − 10 (PSE). In an earlier study among young prisoners (age range from 18 to 23) in the Netherlands, the first author of this paper (Bulten, 1998)

used the DIS. Again, the most prevalent psychiatric diagnosis turned out to be antisocial personality disorder (i.e., 42%). Almost one out of ten of the young adult prisoners had a life-time diagnosis of a psychotic disorder (schizophrenia or a schizophreniform disorder), and about the same proportion suffered from depression. Furthermore, it was found that 9% suffered from obsessive compulsive symptoms.

What to do with these high prevalences? Due to their legal or professional standards jails and prisons have the obligation to provide adequate mental healthcare for their inmates. Early detection is important, but are prisoners with a severe mental disorder indeed detected at an early stage of their incarceration? Whereas in other countries screening tools like the Brief Jail Mental Health Screen (Steadman et al., 2005) are used, the psychiatric screening procedures are not standardized in the Netherlands. On the other hand, Dutch correctional officers are trained to observe and detect prisoners with severe mental disorder. This 'behavioural' approach is assumed to detect psychiatrically disordered prisoners with striking symptoms. Symptoms which attract attention are odd, strange, or overtly depressive behaviour,

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as well as disruptive and aggressive behaviour. As a result of this "behavioural" approach about 10% of the Dutch prison population is classified as needing special and intensive care or control, and for this reason they are admitted to specialized prison departments. But what about the remaining 90% of detainees who are incarcerated at regular prison wards? During this study the Dutch prison system contained about 13,500 detainees, and therefore more than 12,000 inmates resided at regular units in the Netherlands. What is the prevalence of mental disorders in this group of prisoners? When the prevalence of major mental illness would still turn out to be high in this group, the question on how to screen prisoners becomes important.

The use of self-report measures to screen delinquents on psychiatric symptoms may have many (practical) advantages (e.g., time-efficiency), compared to the more time-consuming administration of structured interviews by professional caregivers. Routine health screening on admission to the prison by means of self-reports would, if valid, present "(…) a unique opportunity to identify health needs at an early stage" (Morrison & Gilchrist, 2001). How valid are self-reports of psychiatric complaints by criminal subjects at regular prison wards? What is the self-reported psychopathology among these 'ordinary' prisoners and what personality traits characterize them?

In the present study we sought to gain more insight in the prevalence of psychiatric disorders among the ±90% of adult Dutch prisoners who are detained at regular prison wards. Apart from that, we tried to investigate the concurrent and convergent validity of self-report measures (in comparison to structured diagnostic interviews) and their screening characteristics in such a sample.

2. Methods

2.1. Participants

A cohort of consecutively admitted prisoners to the general wards of the correctional institution in Vught, the Netherlands, was considered for participation in the current study. In the correctional institution in Vught both convicted prisoners, as well as accused persons waiting for their case to come on trial reside. As only detainees of regular, non-specialized wards were asked to participate, prison inmates with obvious psychopathology and behavioural problems are likely to have been excluded automatically from the study. That is to say, prisoners suffering from acute psychopathology (e.g., florid psychotic symptoms) or prisoners who display severe disruptive behaviour are generally admitted to one of the specialized wards of the Dutch correctional system.

Out of a total of 309 randomly selected prisoners admitted to the general wards, 41 were judged to be unable to participate, mostly due to language problems. Some of those 41 were transferred to one of the special units or wards after all and could therefore not be included in the sample. The remaining 268 subjects were asked for their cooperation in the study. Fifty of these 268 prisoners refused (19%), leaving 218 subjects who provided *written informed consent*. Of the 218 prisoners that consented, however, another 27 did not complete (all) tests in the end (10%), mainly because they were released shortly after having given approval to the study. In other words, 71% of the 268 detainees who were initially asked for informed consent, finally were able to give full cooperation to the present study, leaving 191 prisoners in the sample.

2.2. Materials and methods

The 191 prisoners were administered a number of tests during the first weeks of their incarceration in the correctional institution in Vught. To begin with, the MINI International Neuropsychiatric Interview was administered (MINI; see Lecrubier, Sheenan, Weiler, Amorium, Bonora et al., 1997; Sheenan, Lecrubier, Harnett Sheenan,

Janavs, Weiller, et al., 1997). This instrument assesses the presence of 17 DSM-III-R psychiatric disorders, among which antisocial personality disorder. Other Axis II diagnoses, however, are not assessed with the MINI. In the current study, the MINI was administered by trained psychologists.

Secondly, patients completed the Dutch version of the Symptom Checklist — 90 (SCL-90; authorized Dutch version of Arrindell & Ettema, 1986). This 90-item checklist measures to what extent the respondent suffered from psychiatric complaints during the week prior to completion of the scale. To be more precise, the extent is assessed to which the respondent suffered from "Anxiety" (10 items), "Agoraphobia" (7 items), "Depression" (16 items), "Somatic complaints" (12 items), "Suspicion and interpersonal sensitivity" (18 items), "Insufficient thinking and behaviour" (9 items), "Sleeping problems" (3 items) and "Anger-hostility" (6 items).

Apart from the MINI and the SCL-90, subjects were asked to complete the NEO-PI-R (Costa & McCrae, 1992) which is a 240 item self-report instrument aiming at measuring five important dimensions of personality, namely Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. The five domains (factors) measured by the NEO-PI-R provide a general description of personality, while the facet subscales allow more detailed analyses.

2.3. Statistics

By means of descriptive statistics, the prevalence rates of psychiatric disorders, as assessed with the structured MINI interview, were investigated. The focus of this descriptive investigation was on antisocial personality disorder, depression and suicide risks, ADHD, and anxiety disorders. Although the prevalence was expected to be rather low in this selected prison sample, it was also investigated whether any subjects with major Axis-I disorders such as psychosis or bipolar disorder could still be detected.

Following the analyses of the MINI results, we studied the extent in which the diagnoses reached by clinicians on the basis of the structured interviews, were corroborated by the self-report measures. For this, the associations between the MINI results and the self-reported psychopathology (i.e., the scores on the SCL-90) and personality characteristics (i.e., the scores on the NEO-PI-R), were explored by means of *t*-tests. The screening potential of some self-report measures were explored by means of ROC-curves, their sensitivity and specificity, as well as their positive predictive power (PPP) and negative predictive power (NPP).

3. Results

3.1. Age and criminal histories

The mean age of the 191 male participants was 30.4 years (*s.d.*=8.9), with a minimum age of 18 and a maximum of 59 years. Crimes against property were the most common reasons for incarceration (i.e., 37%), followed by violent crimes (23%), homicide offences (15%), drugs related crimes (14%), and sexual offences (6%). The majority of the 191 prisoners (i.e., 68%) had already served time earlier for other crimes. The average number of earlier imprisonments periods was 2.6 (*s.d.*=3.3) for the entire sample.

No significant differences in age [$t(266)=0.62$, $p=0.54$] or type of offence [$\chi^2 (5)=3.5$, $p=0.63$] were found between the subjects who gave full participation ($n=191$) and subjects who refused participation or dropped out during the test period ($n=77$).

3.2. Prevalence of psychiatric disorders

Childhood diagnoses of ADHD (38%), antisocial personality disorders (ASP; 37%), and drug and alcohol dependence (30% and 28%, respectively), were the most prevalent disorders in the sample. A