Archives of Psychiatry and Psychotherapy, 2010 ; 1 : 37–45

Assessment of the mental health of convicted prisoners and those under temporary arrest

Marzena Ksel, Ryszard Wróblewski, Tomasz Adamowski, Tomasz Hadryś, Andrzej Kiejna

Summary

The authors present epidemiological data regarding the mental health of prisoners in Polish penitential units. No such assessment has yet been made in an Eastern European country. The process of deinstitutionalization is not as rapid or advanced in Poland as in Western countries. The following question arises: is there as a large proportion of prisoners with mental disorders as in other countries? On the basis of the studies carried out, it may be stated that in Poland a significant number of such cases are underdiagnosed. However, a relatively large number of disorders related to substance abuse are observed, most commonly alcohol abuse.

deinstitutionalization / transinstitutionalization / penitentiary unit / substance abuse / psychiatric diagnosis

INTRODUCTION

The problem of convicts with mental disorders is an important challenge for the penitentiary system and the prison health service, in particular [1, 2]. As a result of deinstitutionalization, which began in the 1950's in the psychiatric care systems of the USA and other highly developed countries, many people with serious mental disorders found themselves homeless and sometimes under arrest or in prison [3, 4]. By the end of the 1980's it was recognized that there was a large group of persons with a dual diagnosis – addiction to psychoactive substance and mental disorder [5]. At the same time, a rising number of homeless with mental disorders was often noted, along with an increase in the occurrence of their imprisonment and the effects of their aggression. Between 1982 and 1999 the proportion of convicts with mental disorders in the USA rose from 6% to 16% and a large proportion of prisoners in this category were abusers of psychoactive substances [6, 7, 8]. According to Priebe et al. this situation may well result from the unfinished process of creating a modern, comprehensive system of social care [9]. The authors argued that a new era in psychiatric care had begun - reinstitutionalization, which neither the academic world, politicians nor media had previously noticed. In the UK this process involves, among other things, an increase in the number of very expensive beds in prison hospitals within London. There is a lack of data re-

Marzena Ksel[1], Ryszard Wróblewski[1], Tomasz Adamowski[2], Tomasz Hadryś[2], Andrzej Kiejna[2]: [1]Health Service Office for the Central Board of the Prison Service, Warszawa, Poland, [2]Department of Psychiatry, Medical University of Wrocław, Poland. Correspondence address: Tomasz Adamowski, Department of Psychiatry, Wrocław Medical University, 10 Pasteura Str., 50-367 Wrocław, Poland. Phone: 0717841600, e-mail: adamowsk@psych.am.wroc.pl

The authors would like to particularly thank dr Janusz Sierosławski for his statistical analysis and the medical personnel of the 8 penitentiary units in which the study was carried out: the detention centres in Białystok, Gdańsk, Kraków, Poznań, Szczecin, Warszawa, Wrocław and the Łódź penitentiary.

Disclosures: There are no conflicts of interest. The study was financed from the prison budget by the Central Board of the Prison Service.

garding the effectiveness of these hospitals. At the same time, other sectors of psychiatric care are receiving ever decreasing levels of funding. Although not much other research has been done in this field, data from Germany and Austria corroborate the increasing number of beds in prison hospitals over the past 10 years [10, 11, 12]. In their report on reinstitutionalization in six Western European countries (England, Germany, Italy, the Netherlands, Spain, and Sweden), Priebe et al. show that there was a large increase in the number of convicts between 1992 and 2002 (from 16% in Sweden to 104% in Holland) combined with a fall in the number of beds in psychiatric hospitals (from 10% in Germany to 65% in Sweden) and an increasing number of beds in prison wards (from 10% in Italy to 143% in Holland) [13]. It has been noted that one form of institutional care has been replaced by another, which may be called transinstitutionalization. In Poland the process of deinstitutionalization has been underway since the 1990's. However, its progress is not as rapid or advanced as in Western countries. This does not change the fact that many people with mental disorders are incarcerated in Polish prisons, since there has never been a comprehensive system of psychiatric care [2]. Ensuring the appropriate medical care for patients with mental disorders requires a description of the scale and character of these needs. These questions were addressed by a study carried out in the spring of 2003.

AIM OF THE STUDY

The aim of the study was to estimate the frequency of mental disorders among convicts in penitential units.

MATERIAL AND METHODS

The study was carried out in eight penitential units with the aid of interviews based on a 14-item questionnaire presented in the appendix. The interviews were conducted by doctors (general practitioners) during the routine medical check-up carried out upon the arrival of a convict at a penitential unit. The questionnaire contained questions on the use of psychoactive substances in the period leading up to incarceration and previous treatment for mental disorders (including treatment of substance abuse). It also gathered main sociodemographic data (gender, age strata, education level, marital status, size of town inhabited, previous convictions). The results of a simple psychiatric evaluation were included (coded with two options: 1 – no psychiatric abnormalities, 2 – suspected psychiatric disorder), as well as the psychiatric diagnosis (see appendix) reached at that point. It must be noted that the evaluation was based on subjective declarations given by convicts probed for potential addictions and treatment history due to any mental disorder (see relevant questions in the questionnaire), thus individual motives and secondary gains of the convicts should be taken into consideration (tendency to dissimulate or aggravate). Furthermore, psychiatric diagnoses were a reflection of the state of the psychiatric knowledge of the GP leading the initial medical check-up. As a consequence of doctor's suspicions as to whether further specialised consultations should be carried out, convicts were referred to the psychiatrist and/or psychologist. Effects of such consultations are not covered in this paper whatsoever. Therefore, results presented herein should be viewed as preliminary and interpreted cautiously. It is a rough screening for addictions and mental disorders in prison inmates upon their arrival at the penitentiary rather than in depth analysis of the epidemiology of broadly understood mental disorders in this population. Statistical methods are also simple and based on the chi-squared test of independence (significance level of 0.05) and were intended to facilitate description of the population in question. Further research with improved methodology, objectified psychiatric examination and diagnostic process is still needed.

Material

The data were collected from 1305 convicts. Sociodemographics are presented in Tab.1 *(on the next page).*

The vast majority of the interviewees were male (96.3%). The distribution of age in the sample was characteristic of the prison population meaning that nearly half of the screened prisoners were

Table 1. Sociodemographic characteristics of the population screened upon admittance to the penitentiary.

Characteristic	Percentage
Gender	
male	96.7
female	3.3
Age	
≤ 20 years	11.6
21-30 years	37.0
31-40 years	25.9
41-50 years	18.3
≥ 51	7.2
Education	
elementary	39.4
vocational	40.2
high school	17.9
university	2.6
Marital status	
single	58.5
married	26.1
divorced/widowed	15.4
Size of town inhabited	
village/rural	13.9
town <50 000	19.0
town of 50 000 - 100 000	6.2
city of >100 000	60.8
Previously convicted	
no	55.1
yes	44.9

below 30 years of age. Level of education was rather low: most of the convicts had standard vocational training (40.2%) or elementary school (39.4%). The majority of interviewees were single (58.5%). Crime is primarily an urban problem and it had its reflection in our data which showed that the majority of interviewees lived in the cities with over 100 thousand inhabitants (60.8%). Only 13.9% lived in rural areas and villages. More than a half of those incarcerated and interviewed were first-time ever convicts (55.1%).

Table 2. Percentage of those using psychoactive substances (subjective declaration of the convicts).

	Abstained	On occasion	Addicted
Alcohol	18.5	65.7	15.8
Other psychoactive substances	86.3	8.2	5.5
Tobacco	17.8	12.9	69.3

RESULTS

Tab.2 lists percentages of those abstaining, using occasionally or addicted to either alcohol or other psychoactive substances.

A clear majority of those questioned used both alcohol and tobacco. Other psychoactive substances were not that popular since as many as 86% of those questioned claimed they abstained form using such substances. Not so many were sufficiently self-aware and ready to admit to addiction to any psychoactive substance except for tobacco (69%).

The use of both alcohol and other psychoactive substances was strongly associated with the sociodemographic traits of a respondent, as well as previous convictions. Tab. 3 lists respective percentages. Statistically significant differences in frequencies were seen in all sociodemographic characteristics but gender, probably due to very small number of females in the sample (*table 3 on the next page*)".

There was a significant association between age and alcohol addiction. The proportion of those addicted to alcohol initially increased with age to 30.1% between 41 and 50 years of age then fell to 14.0% for individuals above 50.

There was also a significant association between education and alcohol addiction. It was clearly more common among those who went to vocational schools or whose education finished after elementary school. The proportion of individuals who drink from time to time did not depend on the level of education.

There was an interesting association between alcohol consumption and marital status. Single people did not differ from married people in that respect. However, there were significantly less abstinents and more alcohol addicts among those divorced.

Table 3. Alcohol and other psychoactive substance use according to sociodemographic characteristics of the screened population.

Characteristics	Percentages					
	Abstained		On occasion		Addicted	
	Other subst.	Alc.	Other subst.	Alc.	Other subst.	Alc.
Gender						
male	86.0	18.0	8.4	66.2	5.6	15.8
female	92.7	31.7	4.9	53.7	2.4	14.6
Age*						
≤ 20 years	76.0	19.5	14.4	73.8	9.6	6.7
21-30 years	77.3	20.5	13.1	69.1	9.5	10.4
31-40 years	92.6	18.3	4.9	64.0	2.5	17.7
41-50 years	97.0	13.1	2.2	56.8	0.9	30.1
≥ 51	98.9	20.4	-	65.6	1.1	14.0
Education*						
elementary	80.8	15.0	10.1	67.0	9.1	18.0
vocational	87.3	16.3	8.4	66.3	4.2	17.5
high school	92.4	29.1	5.8	64.6	1.8	6.3
university	100.0	27.3	-	63.6	-	9.1
Marital status*						
single	79.7	18.7	11.7	67.2	8.7	14.1
married	94.5	19.9	4.0	66.3	1.5	13.9
divorced/widowed	97.4	13.2	2.6	61.9	-	24.9
Size of town inhabited*						
village/rural	94.3	20.8	4.5	61.2	1.1	18.0
town <50 000	83.8	13.3	9.2	70.0	7.1	16.7
town of 50 000 - 100 000	88.3	33.8	10.4	52.5	1.3	13.8
city of >100 000	85.1	18.0	8.7	67.3	6.1	14.7
Previously convicted*						
no	87.6	20.6	9.6	71.7	2.8	7.7
yes	84.1	14.3	7.0	59.9	8.8	25.8

** some differences statistically significant on the .05 level – see text.*

Alcohol addicts were more common among those living in rural areas followed by those living in small towns up to 50 thousand inhabitants. The largest frequency of abstinents and smallest frequency of alcohol addicts were found among inhabitants of medium-sized towns (from 50 to 100 thousand inhabitants).

Alcohol consumption was strongly associated with previous convictions. The frequency of alcohol addicts was three times greater among those who had been previously convicted than among those who had not previously been convicted. Among multiple offenders, the frequency of abstinents was significantly lower and the frequency of those drinking from time to time slightly lower.

As for psychoactive substances (see Tab. 3), there was a significant association between the use of such substances and age. People between 21 and 30 years of age were most likely to use such substances with nearly 10% of them being addicted. The older the convicts were, the lower the frequency of substance use and addiction was, among individuals of between 41 and 50 years of age, these proportions were nearly 2.2% and 0.9%, respectively.

The frequency of using psychoactive substances fell as the level of education increased. Among those who finished their education after elementary school 9% admitted to addiction whereas no-one who had gone to a school of higher education admitted to using such substances.

It seems that the association of the use of psychoactive substances with marital status reflected the association with age. The largest frequency of those using and addicted to such substances were found among single individuals.

The frequency of those using psychoactive substances, both from time to time and those addicted, was higher in urban areas than in rural areas. Occasional users were most common in medium-sized towns, whilst addicts were most common in small towns (up to 50 thousand inhabitants) and cities (above 100 thousand inhabitants).

As in the case of alcohol abuse, the frequency of addiction to psychoactive substances was many times higher among multiple offenders than among those who had not previously been convicted.

Previous treatment was an important indicator of the state of health of an individual on admission to a penitentiary unit. 16.5% of the screened sample had previously undergone treatment in a psychiatric unit. Tab. 4 lists reasons for and forms of their treatment.

Table 4. Percentage of those treated for mental disorders prior to imprisonment

	Percentage
Due to alcohol, in:	7.1
Outpatient's clinic	4.1
Psychiatric hospital	4.6
Due to other psychoactive substances, in:	3.2
Outpatient's clinic	2.2
Rehabilitation centre	1.1
Psychiatric hospital	1.7
Due to mental disorders, in:	11.9
Outpatient's clinic for mentally ill	7.5
Psychiatric hospital	7.8

Convicts may have been treated in several places at a time

Mental disorders unrelated to substance abuse were the most common reason for treatment in the past (11.9%), followed by alcohol and substance abuse (7.1% and 3.2%, respectively). Detailed frequencies of past psychiatric diagnoses that led to psychiatric treatment are listed in Tab. 5 (*table 5 on the next page*)

It was observed that a significantly higher proportion of multiple offenders has admitted to had been previously treated because of any psychiatric disorders, especially because of alcohol abuse, than first time offenders.

RESULTS

The results of the medical tests carried out on arrival at a penitentiary unit were an estimate of newly admitted prisoners' state of health. As a result of these tests, 15.3% of the total screened population of convicts were diagnosed with a psychiatric disorder. Tab. 5 shows in detail diagnoses reached at that point. Number of these screened positively for mental disorder on entrance was lower than the number of those previously treated because of any mental disorder (15.3% vs 16.5%), thus some of the convicts with mental abnormalities were overlooked.

Analysis of the frequency of various diagnoses GP's had given to convicts they screened upon admittance to penitentiary unit, indicated that alcohol related disorders were the most common. Personality disorders were the second most frequent and disorders related to substance abuse were the third in the line. The remaining diagnoses were significantly less frequent. Majority of those diagnosed with a psychiatric disorder were then referred to a psychologist or psychiatrist for further examinations. 70.5% of those for whom we have information were referred to a psychiatrist, 8.4% to a psychologist and 19.3% to both a psychiatrist and a psychologist. Only 1.8% were not referred for psychiatric care.

Further analysis showed that the frequency of a psychiatric diagnosis was associated with education (the lower the level of education the higher the frequency of psychiatric disorders) and previous convictions (prisoners with previous convictions were more than twice as often diagnosed with a psychiatric disorder than first time offenders).

Diagnosis of a psychiatric disorder on admittance to a penitentiary unit was strongly associated both with substance abuse and previous

Table 5. Frequency of psychiatric diagnoses given in the past and diagnoses made on initial medical check-up at penitentiary entry in the total population screened and in the population of those previously in psychiatric care.

Diagnoses	Past diagnoses		Initial medical check-up	
	%		%	
	In total population	In those previously treated	In total population	In those previously treated
Organic mental disorders F00-09	0.2	1.4	0.5	3.2
Alcohol related disorders F10	3.2	28.4	5.3	37.1
Other psychoactive substances related disorders F11-19	1.5	12.8	2.4	16.7
Psychoses F20-29	0.8	7.4	0.4	2.7
Mood (affective) disorders F30–39	1.5	12.8	0.7	4.8
Anxiety and stress related disorders F40-48	1.9	16.9	0.9	6.5
Personality disorders F60-62	1.8	16.2	3.7	25.8
Mental retardation F70-79	0.1	0.7	0.3	2.2
Others	0.4	3.4	0.2	1.1
Not applicable (no psychiatric symptoms)	88.7	-	85.6	-

psychiatric treatment. Only 10.3% of the prisoners who did not drink alcohol were diagnosed with a psychiatric disorder, whereas 36.3% (3.5 times as many) of those addicted to alcohol were given such a diagnosis. The analogous results for prisoners who did not use any other psychoactive substances and those addicted to such were 12.4% and 55.1%, respectively. That is to say, those addicted to psychoactive substances were diagnosed with psychiatric disorders 4.4 times as often as those who did not use such substances.

Psychiatric disorders were diagnosed more frequently among prisoners who had previously received psychiatric treatment. Those who had previously been treated for alcohol abuse, abuse of other substances or for other reasons, were diagnosed as having a psychiatric disorder 2.7 times, 4.5 times and 8.3 times, respectively, more often than those who had not been previously treated.

Finally, it should be noted that 63.7% of those addicted to alcohol and 44.9% of those addicted to other psychoactive substances were not diagnosed as having a psychiatric disorder. Also, 62.8% of the individuals previously treated for alcohol abuse, 39.0% of the individuals previously treated for substance abuse and 32.2% of those treated for other reasons were not diagnosed as having a psychiatric disorder. These data seem to indicate the need for in depth consideration of the practice of diagnosing prisoners on admittance to penitentiary units.

CONCLUSIONS

There is a high level of addiction to alcohol (15.8%) and other psychoactive substances (5.5%) in offenders newly admitted to penitentiaries. Addictions seem to be more common in offenders who had been previously convicted and incarcerated.

16.5% of the sample had been treated for a psychiatric disorder in the past. Alcohol related disorders were most commonly diagnosed in these offenders, followed by anxiety and personality disorders.

About 15% of convicts on their admittance to a penitentiary unit were seen as having any mental disorder and many of these had history of previous convictions and incarcerations. This proportion, as being too low, differs significantly from the results of studies carried out in other countries [2, 7].

A relatively high proportion of those who had been previously treated for a mental disorder were not diagnosed as having a mental disorder on admittance to a penitentiary unit (from 32.2% of those previously treated for psychiatric disor-

ders unrelated to substance abuse to as many as 62.8% of individuals previously treated for alcohol related disorders). Also, 63.7% of the individuals addicted to alcohol were not diagnosed as having a mental disorder, as well as 44.9% of those addicted to other psychoactive substances. These data seem to indicate that a review of diagnostic practice is necessary.

REFERENCES

1. Lamb HR, Weinberger LE, Gross BH. Mentally ill persons in the criminal justice system: some perspectives. Psychiatr Q. 2004; 75(2): 107–26.
2. Salize HJ, Dressing H. Mentally Disordered Persons in European Prison Systems: Needs, Programmes and Outcome (EUPRIS). Lengerich, Germany: Pabst Science Publishers; 2009.
3. Pepper B, Krishner MC, Ryglewicz H. The young adult chronic patient: overview of a population. Hospital and Community Psychiatry. 1981; 32: 463–469.
4. Caton CLM. The new chronic patient and the system of community care. Hospital and Community Psychiatry. 1981; 32: 475–478.
5. Drake RE, Wallach MA. Dual diagnosis: 15 years of progress. Psychiatric Services. 2000; 51: 1126–1129.
6. Abramowitz MZ. Prisons and the human rights of persons with mental disorders. Curr. Opin. Psychiatry. 2005; 18(5): 525–529.
7. Brooke D, Taylor C, Gunn J, Madena A. Point prevalence of mental disorder in unconvicted male prisoners in England and Wales. British Medical Journal. 1996; 313: 1524–1527.
8. Wallace C, Mullen P, Burgess P et al. Serious criminal offending and mental disorder. Case linkage study. The British Journal of Psychiatry. 1998; 172: 477-484.
9. Priebe S, Turner T. Reinstitutionalisation in mental health care. BMJ. 2003; 326(7382): 175–176.
10. Schanda H. Problems in the treatment of mentally ill offenders a problem of general psychiatry? Psychiat. Prax. 2000; 27(suppl. 2): 72–76.
11. Gunn J. Future directions for treatment in forensic psychiatry. The British Journal of Psychiatry. 2000; 176: 332–338.
12. Lund BC, Flaum M, Adam LA, Perry PJ. Psychiatric Prescribing Trends and Practices in Iowa's Prison. Psychiatric Service. 2002; 53: 1023–1024.
13. Priebe S, Badesconyi A, Fioritti A, Hansson L, Kilian R, Torres-Gonzales F, Turner T, Wiersma D. Reinstitutionalisation in mental health care: comparison of data on service provision from six European countries. BMJ. 2005; 330(7483): 123–126.

QUESTIONNAIRE REGARDING THE STATE OF MENTAL HEALTH OF THOSE INCARCERATED I PENAL INSTITUTIONS

1. sex: M 1 F 2

2. age:

≤ 20	1
21-30	2
31-40	3
41-50	4
>50	5

3. education:

elementary	1
vocational	2
high school	3
university	4

4. marital state:

single	1
married	2
divorced	3

5. size of town inhabited:

village/rural	1
town of less than 50 thou. inhabitants	2
town of 50 - 100 thou. inhabitants	3
city of more than 100 thou. Inhabitants	4

continued on the next page

previously convicted: no 1
yes 2

do you smoke?: no 1
on occasion 2
addicted 3

alcohol consumption: I abstain 1
on occasion 2
addicted 3

use of other psychoactive substances: none 1
on occasion 2
addicted 3

. have you been treated for alcohol addiction: no 1
yes – if so was it in a:
outpatient's clinic 2
psychiatric hospital 3

. have you been treated for addiction to any other psychoactive substances?:
no 1
yes – if so was it in a:
outpatient's clinic 2
rehabilitation centre 3
psychiatric hospital 4

. have you been treated for a psychiatric disorder?: no 1
yes – if so was it in a:
outpatient's clinic for mentally ill 2
psychiatric hospital 3

diagnosis: write a number from 1 to 9 according to the list below

13. medical check-up on internment:
No psychiatric abnormalities 1
Suspected psychiatric disorder 2
If 2, was the prisoner referred to a:
psychologist 3
psychiatrist 4

14. psychiatric diagnosis

diagnosis: write a number from 1 to 9 according to the list below

continued on the next page

Diagnosis appropriate to questions 12 and 14

Organic mental disorders F00-09
Mental and behavioural disorders due to alcohol use F10
Mental and behavioural disorders due to psychoactive substance use F11-19
Schizophrenia, schizotypal and delusional disorders F20-29

Mood (affective) disorders F30-39
Neurotic, stress-related and somatoform disorders F40-48
Disorders of adult personality and behaviour F60-62
Mental retardation F70-79
Others
No such disorder