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Published in:
International Journal of Law and Psychiatry

DOI:
10.1016/j.ijlp.2013.11.013

2014

First Report from the Swedish National Forensic Psychiatric Register (SNFPR)

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Final version: 2013-04-24

Abstract

To the best of our knowledge, the present register is the only nationwide forensic psychiatric patient register in the world. The aim of this article is to describe the content of the Swedish National Forensic Psychiatric Register (SNFPR) for Swedish forensic patients for the year 2010. The subjects are individuals who, in connection with prosecution due to criminal acts, have been sentenced to compulsory forensic psychiatric treatment in Sweden. The results show that in 2010, 1476 Swedish forensic patients were assessed in the SNFPR; 1251 (85%) were males and 225 (15%) were females. Almost 60% of the patients had a diagnosis of schizophrenia, with a significantly higher frequency among males than females. As many as 70% of the patients had a previous history of outpatient psychiatric treatment before becoming a forensic psychiatric patient, with a mean age at first contact with psychiatric care of about 20 years old for both sexes. More than 63% of the patients had a history of addiction, with a higher proportion of males than females. Furthermore, as many as 38% of all patients committed crimes while under the influence of alcohol and/or illicit drugs. This was more often the case for men than for women. Both male and female patients were primarily sentenced for crimes related to life and death (e.g., murder, assault). However, there were more females than males in treatment for general dangerous crimes (e.g., arson), whereas men were more often prosecuted for crimes related to sex. In 2010, as many as 70% of all forensic patients in Sweden had a prior sentence for a criminal act, and males were prosecuted significantly more often than females. The most commonly prescribed pharmaceuticals for both genders were antipsychotics, although more women than men were prescribed other pharmaceuticals, such as antidepressants, antiepileptics, and anxiolytics. The result from the present study might give clinicians an opportunity to reflect upon and challenge their traditional treatment methods.

Keywords: SNFPR Swedish forensic psychiatric register

Introduction

The aim of this article is to describe the content of the Swedish National Forensic Psychiatric Register (SNFPR). The SNFPR was initiated in 2008 by the steering committee of Sweden's National Board of Forensic Psychiatry. The SNFPR started as a tool for local quality control and benchmarking between the different Swedish forensic clinics (www.kvalitetsregister.se/om_kvalitetsregister/quality_registries). To provide accurate data with a high representation on the care processes and patients of forensic psychiatry, a nationwide register was initiated by different professions in forensic psychiatry. The SNFPR was initiated as a nationwide tool to ensure a continuous quality assessment of forensic psychiatric care in Sweden, and all patients are asked for their informed consent to be registered.

The purpose of the register (SNFPR) itself is to provide local centers with data regarding the quality indicators in forensic psychiatric care. Local or regional reports are used by staff for continuous evaluation and quality assessment of forensic psychiatric care. Face validation has been carried out through regular communication and yearly meetings between participating centers and the members of the steering committee of the SNFPR. In conclusion, the SNFPR is a tool to ensure continuous quality improvement of Swedish forensic psychiatric care, and will hopefully generate important scientific information.

To the best of our knowledge, this register is the only nationwide forensic psychiatric patient register in the world. As such, no comparisons with other databases in forensic psychiatry have been done. Due to the sheer size of the SNFPR, and with its repeated annual assessments and high inclusion rate that covers 96% of all Swedish forensic psychiatric patients in the year 2010, it should mirror current treatment traditions and results of forensic psychiatric treatment

in Sweden. By using a detailed understanding of the population and data capture in the SNFPR, it is possible to have an overview of the forensic psychiatric treatment of everyone in the country sentenced for a crime committed under the influence of a severe mental disorder.

Forensic patients in Sweden are defined as individuals who, in connection with prosecution due to criminal acts, have been sentenced to compulsory forensic psychiatric treatment. In accordance with the Swedish Criminal Code, the Swedish courts may pass sentence on any offender who is at or above the age of criminal responsibility, i.e., 15 years of age. Even offenders who are not accountable when committing a crime can be held legally responsible. Offenders with severe mental disorders are presumed to be capable of having criminal intent and are prosecuted and sentenced accordingly (Svennerlind et al., 2010). With public protection in mind, in 1992 the Swedish Criminal Code introduced "special court supervision", wherein the court can stipulate supervision in cases sentenced to psychiatric care, particularly in cases where there is a risk of relapse into serious criminality due to a severe mental disorder. In these cases, any changes in safety measures, such as ground privileges, outpatient treatment, conditional leaves, and absolute discharge, must be approved by a higher administrative court after consultations with the prosecutor from the initial trial and an independent psychiatric expert.

In this first scientific report from the SNFPR, the specific aims are to provide a systematic description on a population-based cohort of patients in the nationwide Swedish forensic psychiatric system regarding: i) basic demographic characteristics, including living conditions, crime-related factors, and other relevant background information, ii) psychiatric diagnoses and disease-related factors, and iii) medication used in order to provide a full picture of patients being sentenced to compulsory forensic psychiatric care in 2010.

Methods

Material and Procedure

For the purpose of the present study, data concerning sociodemographics, psychiatric health, substance abuse, criminal behavior, and pharmaceuticals were captured from the SNFPR. Initially, a total of 1537 Swedish forensic patients were included in the register. However, due to withdrawal of informed consent, 61 (4%) of the patients, 54 males and 7 females, were excluded, resulting in a total of 1476 patients.

The SNFPR is based on patients from 27, out of a total of 28 forensic psychiatric clinics Sweden. The register consists of five forms: (1) baseline and new registration, (2) yearly follow-up, (3) takeover of a patient from another clinic, (4) transfer of a patient to another clinic, and (5) discharge or death of a patient. In the present study, forensic psychiatric patients in Sweden from January 1 to December 31, 2010, constitute the dataset. The data for the study were collected from any of the above mentioned five forms. For further information about the content of the questionnaires in Swedish, please see http://kcp.se/kvalitetsregister/rattspsyk/arbetsmaterial-dokument. All registrations were performed at local sites by experienced psychiatric nurses in consultation with the patient's team, which has access to all data and files and has thorough clinical knowledge of the case. The psychiatric diagnoses were assessed by psychiatrists based on the ICD-10 (International Statistical Classification of Diseases and Related Health Problems, Tenth Revision). The subjects were informed about the SNFPR according to a standard procedure document and asked for consent. Patients were eligible for participation if they were a least 15 years of age, were currently undergoing forensic psychiatric treatment as an inpatient or an outpatient, were convicted for a crime according to Swedish law, and understood Swedish or had an interpreter available and were willing and able to provide oral informed consent. As such, patients

consented to the SNFPR's opening of their hospital records. This is a particular concern, since patients in forensic psychiatric care, from an ethical point of view, are both patients and prisoners.

The present study was approved by the Research Ethics Committee at the University of Gothenburg, Sweden, and was in compliance with the 1975 Helsinki Declaration.

Statistical analyses

The mean, frequency, percentage, and standard deviation of the variables were calculated and stratified by gender. Differences in means among pairs of groups were assessed using *t* tests. Differences in frequencies were tested with chi-square tests. The alpha level was 0.05, and all hypothesis tests were two-sided. The statistical package used for all analyses was Predictive Analytics Software 18.0.

Results

Sociodemographic characteristics

Out of a total of 1476 patients 1251 (85%) were males and 225 (15%) were females (see Table 1 for sociodemographic characteristics). The mean age was 41.2 (SD = 12.2) for males and 40.6 (SD = 12.3) for females. The age range for all patients was 16 to 79 years. Homelessness was the most common living condition prior to prosecution for both sexes (41% of the males and 39% of the females). A third (27%) of all patients had ordinary living conditions prior to prosecution. There were no differences in living conditions between males and females. More than 70% of all patients had a single household composition.

Psychiatric diagnoses

The distribution of psychiatric diagnosis is shown in Table 2. The most common diagnoses (59%) in the SNFPR are schizophrenia and schizotypal and delusional disorders (ICD-10: F20–F29), with a significantly higher frequency among males (63%) than among females (48%) [$\chi 2(1, N = 1431) = 16.06$, $p < .001$]. On the other hand, disorders of adult personality and behavior (ICD-10: F60–F69), with a total frequency of 10% for all patients, showed a higher frequency among females (17%) than among males (9%) [$\chi 2(1, N = 1431) = 13.68$, $p < .001$]. The same was true for mood (affective) disorders (ICD-10: F30–F39), with a total frequency of 5% for all patients, and with a higher frequency among females (9%) than among males (5%) [$\chi 2(1, N = 1431) = 6.16$, $p < .05$]. In the remaining diagnoses, there were no differences in terms of gender.

Mental health and previous contacts with mental health services

The various mental health factors are portrayed in Table 3. A total of 70% of all patients had a previous history of outpatient psychiatric treatment before becoming a forensic psychiatric

patient. There was no difference in this regard between the genders. However, more females (85%) than males (70%) had a history of psychiatric inpatient treatment [$\chi 2(2, N = 1476) = 21.23$, $p < .001$]. The mean age at first contact with psychiatric care was about 20 years old, with no gender differences.

Assessed by the clinicians, most of the patients, regardless of gender, were either not aware (51%) or partly aware (38%) of having a psychiatric disorder, although most of the patients had a moderate severity of symptoms (63%). A 7-point Likert scale (none, very mild, mild, moderate, tangible, severe, and very severe) was used to assess the degree of severity of symptoms. The results are presented collapsed to four categories (none, very mild and mild, moderate and tangible, severe and very severe). These two assessments were done by psychiatrists in consultation with the patient's team. In general (15%), [$\chi 2(3, N = 1476) = 19.47$, $p < .0001$], our finding shows that most patients reported a moderate and tangible severity of symptoms (63%). Also, the symptoms of female patients (26%) were more often than male patients (15%) assessed as severe or very severe.

Substance abuse

Results concerning substance abuse are shown in Table 4. Sixty-three percent of the patients had a history of substance abuse, with a significant gender difference (64% vs. 54% for males and females, respectively; [$\chi 2(1, N = 1476) = 13.50$, $p < .001$]. Alcohol (49%) and illicit drugs (48%) were the most commonly abused substances for both sexes. Significantly more males (50%) than females (35%) were addicted to illicit drugs [$\chi 2(1, N = 1476) = 18.44$, $p < .001$].

As many as 38% of all patients committed the crimes for which they were sentenced to compulsory forensic psychiatric care while under the influence of alcohol and/or illicit drugs. This was more often the case for men (40%) than for women (27%) [$\chi 2(2, N = 1476) = 29.90$, $p < .001$]. Significantly more males (30%) than females (21%) committed crimes while under the influence of alcohol and/or illicit drugs [$\chi 2(1, N = 1476) = 7.34$; $p < .05$] and 18% vs. 11% [$\chi 2(1, N = 1476) = 7.06$, $p < .05$].

Criminal behaviors

Classification of conducted crimes was made according to the Swedish National Council for Crime Prevention (www.bra.se). As can be seen in Table 5 male patients in forensic psychiatric care were primarily sentenced for crimes related to life and death (e.g., murder, manslaughter, assault) (50%), liberty and peace (e.g., trafficking, trespassing) (15%), and general dangerous crimes (e.g., arson, threat, violence against staff) (10%). Female forensic patients were mainly prosecuted for crimes related to life and death (43%), general dangerous crimes (28%), and liberty and peace (12%).

There was a significant gender difference, with more females than males in treatment for general dangerous crimes (28% vs. 10%; [$\chi 2(1, N=1476) = 52.02$, $p < .001$], whereas men were more often prosecuted for crimes related to sex (e.g., rape, sexual assault) (8% vs. 1%, [$\chi 2(1, N=1476) = 12.84$, $p < .001$].

Seventy percent of all forensic patients in Sweden had a prior sentence for criminal acts (see Table 5), and males were previously prosecuted significantly more often than females (73% vs. 51%, respectively; [$\chi 2(1, N = 1476) = 46.01$, $p < .001$]. When comparing the forensic patients concerning type of prior sentencing, significantly more males than females had been

sentenced to imprisonment for violent crimes (42% vs. 25%, respectively; [$\chi 2(1, N = 1476) = 21.69$, $p < .001$] and to previous forensic psychiatric care for violent crimes (17% vs. 7%, respectively; [$\chi 2(1, N = 1476) = 14.57$, $p < .001$]. Concerning nonviolent crimes, more males than females had previously been sentenced to imprisonment for such crimes (43% vs. 31%, respectively; [$\chi 2(1, N = 1476) = 11.57$, $p < .001$]. There was no gender difference regarding prior sentencing to forensic psychiatric care for non-violent crimes.

Pharmaceuticals

The types and cumulative frequency of pharmaceuticals are presented in Table 6. For all patients in the present study and for male patients only, the three most commonly prescribed types of pharmaceuticals are: second-generation antipsychotics/atypical antipsychotics (53%), first-generation antipsychotic/neuroleptics (47%), and pharmaceuticals for side effects (34% and 35%, respectively). For females, the three most commonly prescribed types of pharmaceuticals are: second-generation antipsychotics/atypical antipsychotics (54%), first-generation antipsychotic/neuroleptics (49%), and antidepressants (35%). There was a difference between males and females concerning type of pharmaceuticals prescribed: for antidepressants, 27% vs. 35% [$\chi 2(1, N = 1384) = 5.00$, $p < .05$]; for antiepileptics, 16% vs. 24 % [$\chi 2(1, N = 1384) = 8.97$, $p < .01$], and for anxiolytics, 20% vs. 28 % [$\chi 2(1, N = 1384) = 8.03$, $p < .01$]. Furthermore, there was a significant difference between men and women concerning number of pharmaceuticals used: (for males, M = 2.91, SD = 1.94; for females, M = 3.45, SD= 2.17; $t(1382) = 3.64$; $p < .001$).

Discussion

Sociodemographic characteristics

In our study, there were 1476 patients in forensic psychiatric care in the year 2010, which is in line with previous research (Strand et al., 2009) that shows that between 300 and 400 individuals are sentenced to forensic psychiatric care every year, and that the total number of patients in forensic psychiatric care in any given year in Sweden is approximately 1400. As mentioned previously, the number of missing patients in the SNFPR for the year 2010 was 4%.

The results showed that there are significantly more male (85%) than female (15%) patients in Swedish forensic psychiatric care. These results are in line with a study from the UK that shows that male admission to forensic psychiatric clinics was approximately 6 times higher than female admission (Coid et al., 2000). Furthermore, in a German study (Ribbe et al., 2010) the schizophrenia sample is comprised of around two thirds male and one third female patients, which also is in agreement with the present study.

In our study sample, a majority of the patients (71%) were single and there were no differences among gender. Similar findings were shown by Coid and coworkers (Coid et al., 2001), where they recruited forensic psychiatric patients from a range of geographical areas in England. They found that of all patients, 68–77% was single. A combination of being single and having a diagnosis of schizophrenia increases the risk of a negative course regardless of gender, often due to increasing states of loneliness, isolation, and fear. These groups of patients are in need of social-skills training in order to counteract loneliness and isolation, which should be seen as risk factors for forensic psychiatric morbidity.

We know from earlier research (Coid, 1998) that there is a clear correlation between being forensic psychiatric patients and socioeconomic deprivation. Low overall health, social vulnerability, and minority ethnicity seem to characterize forensic psychiatric populations all over the world (Coid et al., 2001; Vinkers et al., 2010).

The present study shows that there is a significant difference in received government financial support between male and female patients, with female patients to a higher degree receiving such support. This could be due to Swedish society's more nurturing approach to women, or the results could mirror the fact that the female patients had a higher degree of severity in their psychiatric illnesses. In fact, the results from the clinician-reported severity of symptoms indicate that more female than male patients were assessed as having a higher severity of psychiatric symptoms. Possibly as a consequence, they had records of inpatient treatment that exceeded that of the male patients, which could have contributed to a higher degree of societal care. This gender difference is problematic if it reflects a higher degree of severity of psychiatric symptoms.

Psychiatric diagnoses, mental health, and previous contacts with mental health services

The present study shows that "schizophrenia, schizotypal, and delusional disorders" is by far the most common diagnostic category in the SNFPR. In fact, in 2010, as many as 59% of the patients in the register were diagnosed under this category.

Patients who have never had psychiatric treatment and are admitted to an inpatient unit are usually experiencing an index psychotic or mood episode. They represent a small fraction of all admitted patients, but require the most comprehensive medical and psychiatric evaluation. The goal is to establish an accurate diagnosis, which will determine the treatment course.

Although inpatients are almost always referred for outpatient care after discharge, many do not keep even one outpatient appointment. Patients who have no outpatient follow-up after discharge are twice as likely to be rehospitalized the same year, compared with patients who kept at least one outpatient appointment (Nelson et al., 2000). In the present study, as many as two-thirds of forensic psychiatric patients have a prior history of general psychiatric treatment when observing both in- and outpatient general psychiatric treatment episodes. More specifically, there was a significant difference between genders, with more female patients with an inpatient history prior to their present forensic psychiatric care. Patients who relapse and are readmitted after a period of outpatient treatment probably account for the largest group of psychiatric inpatients. It is common that outpatients become nonadherent and relapse after a period of stable remission. Factors that interfere with patient adherence to psychiatric treatment include negative attitudes of patient or family about medications, including a fear of addiction or distress that the medications are symbols of mental illness; caregivers' lack of cooperation with treatment planning; concomitant substance use; medication side effects; poor insight into the illness; a complex medication regimen; and persistent psychosis (Fleck et al., 2005; Byrne et al., 2006; Cohen, 2006). Finally, almost one quarter of the patients had been subjected to coercive measures by the forensic psychiatric care system. Out of the four measures used in Swedish forensic care (physical restraints, seclusion, forcible medication, request for mobile phone denied), significantly more female patients than males had been physically restrained and had their mobile phones taken from them.

In terms of diagnoses, proportionately fewer women than men in forensic hospitals seem to have a psychotic disorder (Coid et al., 2000), but women are more likely to have mood disorders. In a national UK sample analyzed by Coid and colleagues (2000), men were also more likely to have lifetime diagnoses of comorbid drug dependence or abuse. Women in

forensic psychiatry seem to be more likely to have a primary diagnosis of personality disorder, especially borderline personality disorder, while men are more likely to have an antisocial diagnosis.

Substance abuse

Irrespective of the primary diagnoses of the patients, about two-thirds of all Swedish forensic patients had earlier documented histories of substance abuse. Furthermore, almost 40% of the patients were under the influence of alcohol and/or illicit drugs when they committed the criminal act for which they were prosecuted. This could be compared to the Swedish psychiatric outpatients, where 10% of the patients' primary or secondary diagnoses included substance abuse (Socialstyrelsen, 2008). Severe mental illness and substance abuse frequently coexist and, unfortunately, this often results in more severe psychiatric symptoms and worse social functioning. Breaking this vicious circle is of therapeutic importance, especially for the forensic patients who, if not successfully treated, have a high risk of relapse into serious criminal activity.

Criminal behavior

The most common offense category for both male and female forensic patients in this study was crimes related to life and death. This pattern is also observed by Hayes et al. (Hayes et al., 1991), who showed that offenses against an individual was the most common category in an Australian forensic sample. This comes as no surprise since there has been an accumulation of evidence for a significant relation between severe mental illness and violence from the 1990s and forward (Taylor, 2008), and even more so for women than for men (Brennan et al., 2000; Fazel & Grann, 2006), although this relation accounts for only a minor part of the violence seen in the society.

Gender is one of the strongest and most frequently documented predictors of delinquent and violent behavior (Denno, 1985; Rhodes & Fischer 1993; Rowe et al., 1995; Mears et al., 1998). Studies of overall crime rates have consistently shown higher rates of offending for males than for females (Rowe et al., 1995; Heidensohn, 1997), and especially higher rates of violence. This was also true in our sample, where significantly more males than females were prosecuted for crimes related to life and death, which applies to both previous convictions as well as the actual conviction. This gender difference has been observed in other forensic psychiatric samples as well, for example in the UK, where ten times more male than female forensic patients were convicted for offenses of violence against an individual (Coid et al., 2000). In a report by Hayes and colleagues (Hayes et al., 1991), they showed that forensic male patients were more likely than females to be convicted of sexual offenses. The same was noted in the present study, also mirroring the fact that women overall are less likely than men to offend sexually, which was confirmed by a recent review who showed that woman are only responsible for about 4-5% of all sexual offenses (Cortoni & Hanson, 2005).

On the other hand, significantly more females than males were prosecuted for general dangerous crimes, such as arson. Although female patients were less likely to have committed serious offenses against individuals, the potential for serious harm inflicted in the course of an offense of arson cannot be underestimated. It has been shown that, for a substantial number of female patients, the fire-setting behavior was compulsive, carried out for excitement, and indicated pyromania (Hayes et al., 1991; Coid, 1998).

Previous criminal conviction

Mirroring the general pattern of criminal behavior in society, the male patients in this study had more previous convictions than did the female patients. Men seem to be more likely to receive a prison sentence than women, and for individuals sentenced to prison, men receive longer sentences than do women (Rodriguez & Lee, 2006).

Gender differences in the development of social cognition may help to explain gender differences in crime and violence. How an individual responds to a stressful life event or risk factor depends on how that event is perceived, which, in turn, depends on the individual's cognitive processes. Social information-processing skills allow individuals to encode information, interpret and consider risks and benefits of a particular action, and determine an appropriate response based on their repertoire of behavioral scripts. It is not suggested that deficiencies in cognitive capabilities necessarily cause crime, but that certain ways of processing social information and certain social cognitive memory structures help to protect the individual from personal, social, environmental, or situational pressures towards criminal behavior. One of the reasons females have lower rates of offending is because they acquire social cognitive skills earlier in life than males do and because they have better prosocial skills. The superior social cognitive skills of females are influenced by many factors, including better interhemispheric communication, fewer frontal lobe deficits, greater verbal ability, and differential socialization by parents and peers (Bennett et al., 2005).

Pharmaceuticals

Pharmaceutical categories are chosen and defined in order to focus on treatment issues of forensic patients, such as pattern of antipsychotic, antidepressant, anxiolytic, or hypnotic use, pattern of pharmacologic intervention for addiction problems, and pattern of treatment for ADHD. In the study, the most commonly prescribed pharmaceuticals for both men and

women were antipsychotics, although significantly more women than men had been prescribed other pharmaceuticals, such as antidepressants, antiepileptic, and anxiolytics. Furthermore, female patients had an overall higher number of prescribed pharmaceuticals compared to male patients during their forensic psychiatric care in the year 2010.

Conclusions

Demographic

In 2010, 1476 Swedish forensic patients were assessed in the SNFPR. As expected, the vast majority of these patients were males (85% vs. 15% females). Homelessness was the most common living condition prior to prosecution for both sexes, with no difference between males and females. In terms of present crimes, both male and female patients were primarily sentenced for crimes related to life and death (e.g., murder, assault) and as many as 38% of all patients had committed the crimes under the influence of alcohol and/or illicit drugs. This was more the case for men than for women. However, there was a gender difference with more females than males in treatment for general dangerous crimes (e.g., arson), whereas men wore more often prosecuted for crimes related to sex. More than two thirds (70%) of all forensic patients in Sweden have previously been sentenced for a criminal act, and males had previously been prosecuted significantly more often than females.

Clinical disorders and medication

Almost 60% of the patients had a diagnosis of schizophrenia, with a significantly higher frequency among males than females. As much as 70% of the patients had a previous history of outpatient psychiatric treatment before becoming a forensic psychiatric patient, with a mean age at first contact with psychiatric care of about 20 years old for both sexes. More than 63% of the patients had a history of addiction, with a higher proportion of males than females. Finally, the most commonly prescribed pharmaceuticals for both genders were antipsychotics, although more women than men more often had been prescribed other pharmaceuticals, such as antidepressants, antiepileptics, and anxiolytics.

Limitations

This study contains several limitations. As with all data from large patient registers, its research contribution is determined by the format of the register and the type of data collected. Not all information in the SNFPR has been recorded in a standardized way and some instruments, like the seven grade scale reporting severity of symptoms, have not been validated. However, national patient registers provide very important data for service planning, epidemiological and administrative research and the size and prospective design are principal strengths, and the specific data of registers as the SNFPR tend not to be collected elsewhere. In addition, a World Health Organization collaborative study in the UK found a relatively high (85%) concordance between a psychiatric case register and ICD-9 diagnosis (Jones, et al., (1986).

The SNFPR is also e relatively younger register and several parts of it are likely to be subject to future revision.

Further studies

The SNFPR contains data such as sociodemographic variables (including living conditions), crime-related factors, psychiatric diagnoses, disease-related factors, and use of pharmaceuticals. Given this background, further studies will assess the following research questions: (1) do forensic psychiatric patients with different psychiatric diagnoses differ and, if so, in respect to which variables? and (2) do forensic psychiatric patients that commit violent crimes vs. nonviolent crimes differ and, if so, in respect to which variables?

Acknowledgements

The SNFPR is financially supported by the Swedish Association of Local Authorities and Regions. Data management and its compilation into the computerized register have been handled regularly by Benjamin Häggqvist and Håkan Cederberg at Onkologiskt Centrum, Norrland University Hospital, Umeå, Sweden.

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Table 1

Sociodemographic variables in the Swedish National Forensci Psychiatric Register stratified by gender. Data are presented as means ± SD or as N and percentage (%).

Sociodemographic Variables	**All Patients**	**Male Patients**	**Female Patients**	***p*-value**
Number	1476 (100%)	1251 (85%)	225 (15%)	<.001
Age (M ± SD)	41.1 ± 12.3	41.2 ± 12.2	40.6 ± 12.3	ns
Age range (years)	16–79	16–79	18–79	-
Living conditions (%)				
ordinary	401 (27%)	340 (27%)	61 (27%)	ns
ordinary with assistance	102 (7%)	90 (7%)	13 (5%)	ns
supported	359 (24%)	296 (24%)	63 (28%)	ns
homeless	601 (41%)	513 (41%)	88 (39%)	ns
missing	13 (1%)	12 (1%)	1 (0%)	-
Household composition (%)				
single	1030 (72%)	877 (72%)	62 (71%)	ns
living with partner	72 (5%)	49 (4%)	17 (8%)	<.05
living with parents	72 (5%)	61 (5%)	6 (3%)	ns
living with other adults	86 (6%)	73 (6%)	6 (3%)	ns
missing	171 (12%)	158 (15%)	32 (15%)	ns
Receiving financial support	873 (61%)	731 (60%)	149 (70%)	<.01

ns = not significant

Table 2

Psychiatric diagnosis (ICD-10) stratified by gender. Data are presented as N and percentage (%).

Pscyhiatric Diagnosis	**All Patients (N=1476)**	**Male Patients (N=1251)**	**Female Patients (N=225)**	***p*-value**
F00-09 Organic, including symptomatic, mental disorders	41 (3%)	32 (2%)	9 (4%)	ns
F10-19 Mental and behavioral disorders due to psychoactive substance abuse	69 (5%)	59 (5%)	10 (4%)	ns
F20-29 Schizophrenia, schizotypal and delusional disorders	869 (59%)	766 (63%)	103 (48%)	<.001
F30-39 Mood (affective) disorders	77 (5%)	58 (5%)	19 (9%)	<.05
F40-49 Neurotic, stress-related and somatoform disorders	24 (2)	21 (1%)	3 (1%)	ns
F50-59 Behavioral syndromes associated with physiological disturbances and physical factors	2 (0.1%)	2 (0.2%)	0 (0%)	NA
F60-69 Disorders of adult personality and behavior	147 (10%)	110 (9%)	37 (17%)	<.001
F70-79 Mental retardation	37 (3%)	31 (2%)	6 (3%)	ns
F80-89 Disorders of psychological development	124 (9%)	104 (8%)	20 (9%)	ns
F90-98 Behavioral and emotional disorders with onset usually occurring in	31 (2%)	26 (2%)	5 (2%)	ns

childhood and adolescence				
Missing	55 (2%)	42 (3%)	13 (3%)	ns

ns = not significant

NA = the number of patients in this group is too small to make a comparison

Table 3

Mental health and previous contacts with mental health services, stratified by gender. Data are presented as percentage (%) or mean ± SD.

Mental health and previous contacts with mental health services	**All Patients**	**Male Patients**	**Female Patients**	***p*-value**
History of psychiatric treatment (%)				
outpatient	70	69	73	ns
inpatient	72	70	85	<.001
other	6	6	5	ns
Age at first contact with psychiatric care (M ± SD)	20.3 ± 10.0	20.5 ± 10.0	19.3 ± 10.0	ns
Clinician-reported awareness of illness (%)				ns
yes	10	10	11	
partly	38	38	39	
no	51	52	50	
Clinician-reported severity of symptoms (%)				<.001
no	3	3	1	
very mild/mild	18	19	13	
moderate and tangible	63	63	60	
severe/very severe	17	15	26	
Coercive measures (%)	24	23	29	ns
physical restraints	11	10	16	<.01
seclusion	16	16	16	ns
forcible medication	9	9	12	ns

request for mobile phone denied	4	3	6	<.05

ns = not significant

Table 4

Substance abuse, stratified by gender. Data are presented as percentage (%).

Substance Abuse	**All Patients**	**Male Patients**	**Female Patients**	***p*-value**
History of substance abuse (%)	63	64	54	<.001
alcohol	49	50	47	Ns
illicit drugs	48	50	35	<.001
pharmaceuticals	15	15	20	<.05
solvents	6	6	3	<.05
anabolic steroids	2	3	0	<.05
Influence of substances when committed crime (%)				<.001
yes	38	40	27	
no	43	40	60	
unknown	19	20	13	
Influenced by type of substance when committed crime (%)				
alcohol	28	30	21	<.05
illicit drugs	17	18	11	<.05
pharmaceuticals	4	3	5	ns

ns = not significant

Table 5

Type of prosecuted crime and previous criminal conviction, stratified by gender. Data are presented as percentage (%).

Crimes	**All Patients**	**Male Patients**	**Female Patients**	***p*-value**
Type of present prosecuted crime; related to: (%)				
life and health	49	50	43	<.05
liberty and peace	15	15	12	ns
sex	7	8	1	<.001
theft, robbery, and other acquisitive crimes	8	8	7	ns
general dangerous crimes	13	10	28	<.001
other (11 categories)	9	9	9	ns
Previous criminal conviction (%)	70	73	51	<.001
nonviolent	41	43	31	<.001
nonviolent*	6	7	5	ns
violent	39	42	25	<.001
violent*	15	17	7	<.001

ns = not significant

* Sentenced to compulsory forensic psychiatric treatment.

Table 6

Type of pharmaceuticals use, stratified by gender. Data are presented as percentage (%) or mean ± SD.

Pharmaceuticals	**All Patients**	**Male Patients**	**Female Patients**	***p*-value**
First-generation antipsychotics/neuroleptics	47	47	49	ns
Second-generation antipsychotics/atypical antipsychotics	53	53	54	ns
Antidepressants	28	27	35	<.05
Lithium	6	6	8	ns
Antiepileptics	17	16	24	<.05
Anxiolytic, hypnotic, or sedative drugs*	21	20	28	<.05
Anxiolytic (histamines)	31	31	34	ns
Pharmaceuticals for addiction of alcohol and illicit drugs	13	13	13	ns
Pharmaceuticals for ADHD	8	8	9	ns
Pharmaceuticals for side effects	34	35	29	ns
Mean number of pharmaceuticals used	2.97 ± 1.98	2.91 ± 1.94	3.45 ± 2.17	<.001

ns= not significant

*Anxiolytic, hypnotic, or sedative pharmaceuticals with a potential of addiction and abuse; the most common drugs are the benzodiazepines. In addition, some hypnotics like Zopiclone and Zolpidem also belong to this category.