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Perspectives on triage of mentally disordered offenders in Belgium

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Keywords : forensic, personality disorder, psychosis, triage, length of stay,

Abstract-FR

Le triage des patients médico-légaux est une préoccupation internationalement reconnue. Cette étude porte sur le triage des patients ayant commis des délits ou crimes dans un état de déséquilibre mental au moment des faits en Belgique. Nous avons étudié les prévalences psychiatriques et les durées de séjour sur base des données recueillies dans des rapports/publications des institutions *high* et *medium risk*. Nous constatons que le triage des patients à travers les différentes institutions, correspond au profil de risque et diagnostique. Les durées de séjours augmentent avec le niveau de sécurité de l'institution. Nous retrouvons plus de comorbidité et de troubles de la personnalité dans les structures *high risk*, les troubles psychotiques primaires sont plus prévalent dans les structures *medium risk*, et le retard mental et les troubles liés aux substances sont transnosographiques.

Abstract-NL

Triage van forensische patiënten krijgt alsmaar meer aandacht in de internationale literatuur. Dit artikel spitst zich toe op het oriënteren van forensische patiënten in België. Gerapporteerde en gepubliceerde psychiatrische prevalenties en behandeltijden van medium en high risk instellingen werden geanalyseerd. We stellen vast dat de triage van geïnterneerde patiënten naar de verschillende instellingen coherent met diagnose en risico profielen gebeurd. Behandeltijd stijgt met het risico niveau van de instelling. Er is meer psychiatrische comorbiditeit en meer persoonlijkheidsstoornisdiagnoses in *high risk* instellingen, primaire psychotische stoornissen komen vaker voor bij *medium risk* instellingen, en diagnoses van mentale beperking en middelenmisbruik vindt men in iedere diagnostische categorie en op ieder risico niveau terug.

Abstract-EN

Triage of forensic patients is a concern with growing interest. The present study focuses on the triage of mentally disordered offenders in Belgium. Psychiatric prevalences and lengths of stay of high and medium risk facilities reported in publications and reports were analysed. It appears that forensic patients are triaged according to their diagnostic and risk profile. Lengths of stay increase with the risk level of institutions. Higher comorbidity and personality disorder rates were found in high risk settings, more primary diagnoses of psychotic disorders were found in medium risk facilities. Mental retardation and substance abuse were found to be transnosographic and were found in every risk level.

Introduction

Belgium law has two different systems of compulsory care. The first is a civil commitment measure and is considered to be a "preventive" measure for someone who poses an imminent threat to himself or to others, and rejects voluntary care (Loi relative à la protection de la personne des malades mentaux, 1990). The second is a legal sanction to an offense committed by an individual in a "mental state that renders him incapable of controlling his/hers actions" (Loi de Défense Sociale, 1964). The latter law has been revised a few years ago (Loi relative à l'internement, 2014), but has only been enacted by fall 2016. The gross of the patients currently resorting under this law have been sentenced, treated, and oriented through the former version of this law.

In medical environments, the process of determining the patient's treatment is referred to as "triage". This term has also been implemented in forensic psychiatry for a pragmatic use of available resources (e.g. (Kennedy, O'Neill, Flynn, Gill, & Davoren, 2010). In Belgium, the triage between both forensic measures discards risk and pathology, is dependent on whether a complaint has been filed, the perceived seriousness of the committed offense, and the appreciation of the prosecutor who initiates the first determining legal actions. After this legal triage, both populations are oriented to distinct health care systems. The aim of this article is to assess whether this legal response results in adequate pathology and security triage.

The preventive compulsory care is applied to individuals posing a serious threat to themselves or to others. For example, someone who is delusional and aggressive in the streets, gets reported to the police, and brought to an Emergency Departement, found to have a psychiatric pathology who renders him dangerous to himself and others, and is brought to a secure psychiatric ward for treatment. This measure last from 8 to 40 days, and can be prolonged by a judge until the individual is fit to regain the community. Figures are unclear, but about 7000 individuals appear to be resorting under this measures (Gutierrez, Dorzee, & Bourton, 2009). The majority of this population has diagnoses of psychotic disorders because one cannot be committed under this regime for example for an inebriated state or for a personality disorder (PD; CHJT, personal communication, 2017).

The same patient might be reported to the police because he aggressed someone in his delusional and aggressive state; he gets arrested and the prosecutor is informed of the situation. The prosecutor deems this case to require further examination. The patients is transferred to prison awaiting psychiatric examination and trial. This can last a few months. If the court acknowledges a psychiatric evaluation suggesting that the individual is not guilty by reasons of insanity, he is remains in prison until adequate psychiatric care is provided. We will refer to individuals resorting under this regime as mentally disordered offenders (MDO). Because adequate psychiatric facilities are scarce, MDO's have to wait between 3 months to one year in prison before a transfer to a care facility (CHJT, 2017). Medium risk hospitals have no obligation to accept MDO's, but do so with inclusion and exclusion criteria varying according to pathology and tolerated risk. At this stage, a post-hoc psychopathological triage occurs. If MDO's recover psychiatrically and functionally, they can be conditionally discharged to community, and definitely freed when their rehabilitation is completed.

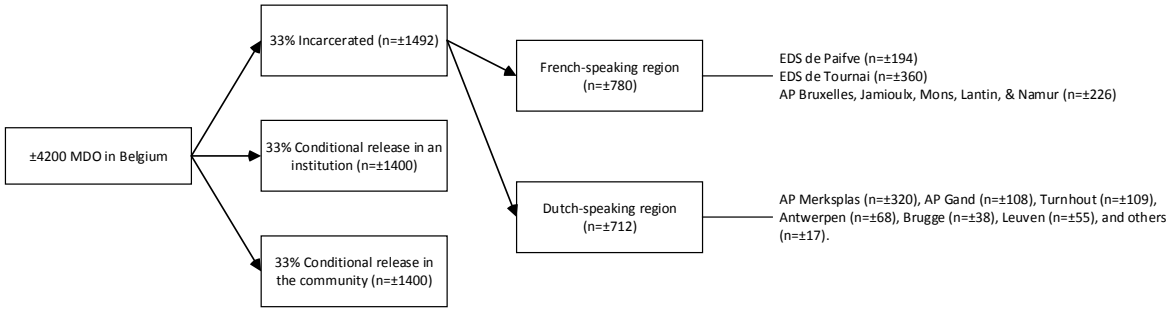

Figure 1 Schematic representation of Belgian MDO population. EDS=High Security Facility. AP=Psychiatric prison ward.

As is shown in Figure 1, about 4200 MDO's are scattered through prisons, psychiatric hospitals, secure institutions[1], sheltered housings, and in the community (Cosyns, D'Hont, Janssens, & Verellen, 2007; De Page, De Smet, & Titeca, 2015). Previous Belgian literature about the psychopathological profile of this population suggest high comorbidity rates, but psychosis and personality disorders appear to account for ±70% of MDO's (Cornu, Mercenier, & Giovagnoli, 2011; Cosyns et al., 2007; Jeandarme et al., 2015; Saloppé et al., 2012). Other diagnoses include substance abuse disorders, sexual disorders and mental retardation. Similar diagnostic prevalences have been reported internationally (Bjørkly, Sandli, Moger, & Stang, 2010; Butwell, Jamieson, Leese, & Taylor, 2000; Harty et al., 2004; Leese et al., 2006; Woods, Reed, & Collins, 2003).

Relationships between (primary) psychiatric diagnoses and reoffending have been described in international literature (Baxter, Rabe-hesketh, & Parrott, 1999; Chang, Larsson, Lichtenstein, & Fazel, 2015; Coid et al., 2015; Coid, Hickey, Kahtan, Zhang, & Yang, 2007; Yu, Geddes, & Fazel, 2012). Over time and as primary diagnosis, personality disorders, mainly DSM Cluster B personality disorders, especially antisocial personality disorder, appear to be at higher risk of reoffending than psychotic disorders. Inversely, at admission, psychotic disorders are associated with higher risk (Newton, Elbogen, Brown, Snyder, & Barrick, 2011). Psychotic disorders appear to respond quicker to treatment, and risk seems to lower with treatment especially in the absence of personality disorder. Short stay intensive care units have high prevalence of psychotic disorders and low prevalences of personality disorders (Adams & Clark, 2008; Beer, Pereira, & Paton, 2008; Dolan & Lawson, 2001a, 2001b; Winkler et al., 2011) + CHJT personal communication 2016). Although mental retardation and substance abuse have qualitatively different influences on risk, both can be regarded as transnosographic and increase risk when diagnosed as a comorbidity. Substance abuse has a direct effect on psychosis (e.g. triggering paranoid features; De Page & De Smet, 2016; Goethals, De Backer, & van Marle, 2014; Swartz et al., 1998), which in turns has an effect on violence. In the PD group, substance abuse might serve as: a rationalization for antisocial behaviour, expose patients to violent or predatory environments and peers, increase conflict in interpersonal relationships and erodes social support, (Webster et al, 2009), and disinhibits aggressive

[1] Data regarding female MDO's in secure institution "Chênes aux Haies" were not yet available.

impulses (Swanson, 1994). Mental retardation is difficult to represent because of the conflation between the syndromal diagnosis and heterogeneous assessment procedures of cognitive capabilities (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011). Based upon these correlates, we cautiously summarized our hypotheses in Figure 2.

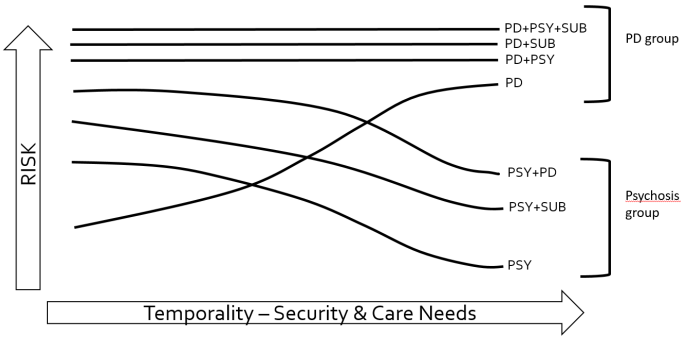

Figure 2. Hypotheses regarding risk according to time and care. PD=(Cluster B) Personality Disorder, PSY=schizophrenia and other psychotic disorders, SUB=substance abuse. Plus signs indicate secondary diagnoses.

Terms such as high, medium and low risk are used to qualify both institutions and MDO's. For the former, this refers to security level, patient-to-staff ratio's, care level, length of stay and so on. For the latter, is refers to risk and protective factors, receptivity to care, treatability, reoffending probabilities, etc. This implies that MDO's can be matched to adequate treatment programs, and that an adequate risk and psychopathological triage can be applied. In this article, we will examine if this is the case in Belgium despite an unsystematic legal triage. If this is correct, we should find higher rates of comorbidity and more personality disorders in high-risk settings, and higher rates of psychotic disorders in medium risk settings. Because psychotic and personality disorders, functioning level, substance abuse and longer have been reported to influence time before discharge, we expected length of stay to correlate with comorbidity and risk (Andreasson et al., 2014).

Method

Belgian institutions for MDO's were contacted for diagnostic prevalences, comorbidity rates, length of stay and all other relevant information, in any available form for 2014, 2015 and/or 2016. In the past years, the ministry of public health as commissioned several instances (Dheedene, Seynaeve, & Van der Auwera, 2015; Equipe de Recherche Cartographie Internés, 2014) to produce sociodemographic and diagnostic descriptive statistics, but these remained unpublished. We were kindly allowed to consult these reports. Data regarding high security facilities were found in Oswald's et al. study (Oswald et al., 2016). Prevalences for medium security facilities were provided by the Centre Hospitalier Jean Titeca (CHJT, Brussels) and the Centre neuropsychiatrique Saint-Martin (CNP Saint-Martin, Dave). Data from community MDO's were kindly provided by outreaching team, sheltered housings and psychiatrists depending from the CHJT. All data gathering and analysing procedures followed the ethical guidelines.

These data were not collected through a systematic assessment. As such, they were not comparable. Diagnoses were formulated by clinicians, not by structured assessment, except if stated otherwise. Prevalences were established through different classification systems, as primary diagnoses or not, with or without comorbidity, etc. Therefore, we discuss each dataset in regards to our hypotheses.

Results

Incarcerated MDO's

When found not guilty for reasons of insanity, MDO's are imprisoned awaiting admission in a psychiatric hospital, or conditional release in community. Therefore, incarcerated MDO's include a) "freshly" sentenced MDO's, b) MDO's awaiting a bed in a psychiatric hospitals, and c) MDO's who require a transfer to high security settings.

Schizophrenia and other psychotic disorders accounted for 54% of 174 MDO's in French community prisons, mental retardation for 14%, personality disorders 7.5%, and substance abuse for 9% (Equipe de Recherche Cartographie Internés, 2014). Prevalences of Flemish prisons, provided by the Flemish Health Coordinators, are presented in Table 1.

Table 1. Psychiatric prevalences of 712 MDO's in Flemish prisons (expressed with comorbidity).

Diagnosis	Prevalence
Psychosis	31.2%
Personality disorder	55.2%
Mental retardation	24.7%
No diagnosis	0.7%
Substance abuse disorder	39.3%
Sexual disorder	23.5%

Considerable differences between both sources is apparent. Difference diagnostic traditions might account for this bias: French speaking clinicians are reluctant to diagnose personality disorders whenever psychosis is present, Flemish clinicians report psychosis only during its active (positive) symptomatic phase, tend to report personality disorders independently of psychotic symptomatology, and report more mental retardation (De Page & Goethals, Accepted).

MDO's having no diagnosis might appear nonsensical. This can be accounted for by a) different assessment methods, b) a mental illness at the time of index offense that remitted at time of assessment, or c) a condition that could not be categorized. We must also emphasize that current prevalence data does not necessarily equals the psychopathology that induced the index offense.

Notwithstanding these manifest methodological and result discrepancies, the most frequently reported diagnoses are personality disorders, psychosis, substance abuse and mental retardation, which is congruent with international literature.

High security hospital (*EDS Tournai*)

Prevalences of 229 male MDO's in a Walloon high-security hospital (Oswald et al., 2016) indicated that; 13.4% did not have a diagnosis, 54.1% had a diagnosis of both psychopathology and personality pathology. 51% of the patients had at least 2 diagnoses. The mean length of stay was 8.17 years (median 7 years). Standardized MINI assessment suggested that the most prevalent DSM-IV-TR Axis I disorders are psychotic disorders (37.4%), mood disorders (31.4%), anxious disorders (23.2%), and substance abuse disorders (17.2%). 74.2% had at least one personality disorder diagnosis. The most common personality disorder diagnoses are antisocial (37.9%), borderline (27.5%), and narcissistic (17.4%). About 28% had a diagnosis of mental retardation.

Walloon high security facility (*EDS Paifve*)

The most prevalent primary diagnosis in the only Walloon high security facility was psychosis (50%), followed by mental retardation (25%), personality disorders (11%), and substance abuse (5%). This facility has also the longest mean length of detention time (Table 2). 63% of 194 patients had a secondary diagnosis, and 24% had a third diagnosis. The most frequent secondary diagnoses were substance abuse (27%), personality disorders (14%), and mental retardation (12%). Personality disorders were the most frequent third diagnosis (15%).

Medium security hospitals (*UPML Bruxelles & Dave*)

Belgium has six medium security hospitals. We obtained diagnostic prevalence of two facilities French-speaking medium security hospitals targeting psychotic disorders (n=±116). 48% have a diagnosis of paranoid schizophrenia. Psychoses with mood features (schizo-affective disorder or bipolar disorder) only account for 14% of the total sample. 23% had PD traits or syndromes ("PD Not otherwise specified" as the most frequent personality disorder diagnosis). Substance abuse and mental retardation were respectively present in 23% and 4% of these "medium" risk patients. The high comorbidity of psychosis and substance abuse that can be seen in figure 3 is congruent with international literature (e.g. (Volavka & Citrome, 2008).

Community forensic patients

Data regarding community forensic patients (patients living in half-way houses, followed by outreaching teams, and supervising doctor from the CHJT) were gathered (n=148). Figure 3 suggest an overall drop of comorbidity of the four emphasized diagnoses. These prevalences are to be interpreted cautiously because a selection bias might be present as the CHJT has specialized in forensic psychosis. Notwithstanding, we can cautiously infer that community MDO's have lower comorbidity rates.

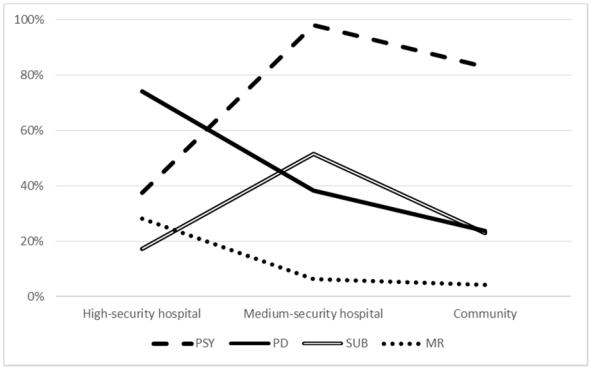

Figure 3. Diagnostic prevalences across high, medium and low risk settings. PSY=Psychotic disorder, PD=Personality disorder, SUB=Substance abuse, MR=Mental retardation.

Average lengths of stay

Average lengths of stay of the above discussed facilities are presented in Table 2. Medium security hospitals have the lowest mean length of stay. This is probably due to their targeting the psychosis group depicted in Figure 2. Prisons have the widest standard deviation, maybe because they contain patients are varying levels of pathology and differing stages of their triage process.

Table 2. Average lengths of stay (expressed in months)

	Mean	SD	N
Medium security hospitals	16.59	11.39	72
High Security Hospital	98.04	77.4	229
High Security Facility*	105.59	25.22	230
French speaking prisons*	13.54-24.92	10.59-30.11	174

**Cross-sectional detention time.*

Discussion

The available data suggests that, in Belgium, MDO's are oriented through the several institutions according to risk and pathology considerations despite an unsystematic triage upon sentencing. Compared to high security facilities (both prisons and hospitals), medium security hospitals have patients with less comorbidity, higher rates of psychosis, less personality disorders. Congruent with international findings, the mean length of stays decreases with risk and pathology (Andreasson et al., 2014). Of the two main groups of MDO's, those with psychotic disorders appear to be discharged quicker to community than the personality disordered group.

Although the MDO post-sentencing triage is reasonably well organized, the difference in duration and treatment offer is disproportionate. The new law for MDO's is supposed to facilitate triage through a) a better collaboration of medical and legal systems, b) an emphasis of risk of reoffending, c) an emphasis on risk of absconding and breach of conditions of discharge, and d) allowing faster and more transfer capabilities between settings. The new law systemizes timing of follow-up of MDO's, which is supposed to a) facilitate conditional

discharge and b) shorten duration of measure. Future studies should assess the improvements through pathways of care and analysis of length of stay in prison and other settings.

Limitations

The main drawback of this study, is the difference in data collection and reports: diagnostic prevalences with and without comorbidity, structured or clinical assessment, and through different classifications. Notwithstanding, we were able to analyse a wide array of reported statistics, regarding large samples.

MDO with sexual offenses (±10%) are difficult to represent by psychiatric diagnosis because a diagnosis of sexual disorder is not always warranted despite their index offense (Oswald et al, in press).

The present study concedes to a certain degree of circular reasoning because we tried to infer diagnostic and triage profiles based upon the current location of MDO's, and the location of MDO's is determined –inter alia– by the diagnostic and triage profile.

Conclusions

Because of overcrowded psychiatric prison wards, and limited treatment facilities, an optimal use of these facilities rests upon an adequate risk and psychopathological triage. Mental health services appear to have been able to operate an adequate post-sentencing triage at cost of a lengthy process. Reported diagnostic prevalences and according risk estimates are congruent with international literature; comorbidity and personality disorders rates increase with level of security, primary psychotic disorders are more prevalent in medium risk facilities, and mental retardation and substance abuse appear to be transnosographic and found in every risk category.

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