

## **Long-term forensic psychiatric inpatient treatment – review of the selected literature and the analysis of data from the medium secure forensic psychiatry unit**

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### **Summary**

**Aim.** The aim of this study was to perform an analysis of the risk factors of long-term psychiatric detention, defined as a stay in forensic institution exceeding respectively 60 and 84 months, based on data obtained from 150 patients from medium secure forensic psychiatry unit. The discussion was preceded by an analysis of the available literature in this field. The sociodemographic factors, the course of the mental disorder, the characteristic of committed criminal acts, aggressive or self-destructive behavior and the clinical characteristic of the illness in the last 6 months of psychiatric detention were analyzed.

**Method.** A pilot study was based on a retrospective analysis of data from medical records and psychiatric experts' opinions of a cross-sectional nature. Due to the variables' characteristic, the Student's *t*-tests, Spearman's correlation and the Kruskal–Wallis rank ANOVA were used.

**Results.** Risk of long-term hospitalization significantly correlated with factors related to the course of the last 6 months of inpatient treatment, including the mental state of patients, the occurrence of aggressive behaviors and the response to pharmacological treatment. There was no significant effect of demographic factors or coexisting addiction to alcohol and psychoactive substances. The risk of long-term psychiatric detention increased with the duration of the illness. There were no correlations with the age of the patients at the time of admission nor number of detentions. The nature of the diagnosis was also not found to be a risk factor.

**Conclusions.** Our study is the first systematic attempt to assess the risk factors of long-term psychiatric detention in a group of patients of forensic psychiatry centers in Poland. We hope that the presented results will rise a discussion on the shape of psychiatric care in Poland and

encourage further research in this area, as well as they will contribute to the optimization of the treatment process.

**Key words:** forensic psychiatry, length of stay, psychiatric detention

## Introduction

The aims of forensic psychiatry units are related both to the treatment and care of mentally ill perpetrators of prohibited acts, as well as to the isolation of perpetrators who, due to the current state of mental health, are not able to function safely in the society [1–4]. The implementation of a preventive measure in the form of an involuntary stay in a psychiatric hospital (the so-called psychiatric detention, psychiatric inpatient forensic treatment) is one of the forms of deprivation of liberty. Some perpetrators may be deprived of their liberty for many months and years. Although there are no studies conducted on large groups of patients, some results suggest that mentally ill perpetrators spend more time in psychiatric isolation than mentally ill perpetrators of similar crimes in prisons [5]. Moreover, it is known that mentally ill perpetrators stay in custody for longer than healthy persons [6, 7]. It is estimated that among the patients of forensic psychiatry units, about 15–20% are people with a poor prognosis of discharge, the so-called ‘long-stay’ patients, staying in forensic wards for more than 5 years, and usually much longer [8].

Long-term forensic psychiatric hospitalizations provoke concerns among patients, their relatives and carers, and the competent penitentiary courts. Moreover, in most European countries, including Poland, the legislator allows for the duration of psychiatric detention of mentally ill perpetrators to be longer, in the case of similar prohibited acts, than the period of imprisonment of mentally healthy perpetrators of similar acts [9]. The need to ensure social security by isolating perpetrators may not lead to abuses or any actions that would result in a longer than necessary period of deprivation of liberty [10]. Both clinicians and researchers are asking themselves, what factors influence the long-term course of psychiatric detention, especially taking under consideration the high costs and growing expectations of forensic psychiatric care systems in Europe [11, 12], the growing number of places in forensic psychiatric systems in most European countries [12, 13] and prolonged treatment duration [14, 15]. Identification of these factors may allow for a better adaptation of the realities of the functioning of departments and the therapy conducted to the needs of forensic patients, which is to be one of the assumptions of the reform of forensic psychiatric care in Poland [16]. Perhaps it will also shorten the length of hospitalization of patients in forensic psychiatric centers.

In the literature on the subject, there are much more studies devoted to the impact of individual factors on the overall length of stay (LoS), while relatively fewer studies directly concern the risk factors of long-term hospitalization. Among socio-geographic factors it was found that male gender [17, 18], starting detention in old age [19], being an immigrant [17, 18, 20], poor education [5, 20], and unemployment at the time of the act [5, 17] significantly extended the duration of psychiatric detention. According to the data from the literature on the course of mental disorders, previous contact

with child and adolescent psychiatric services was associated with longer periods of detention [21], as was the experience of childhood trauma [18]. A positive correlation between the length of detention and the number of previous admissions to psychiatric hospitals was also observed [22]. The diagnosis of psychotic disorders [21, 23] was also associated with the prolongation of the detention time, while the results of research on the influence of vivid psychotic symptoms on the duration of detention, measured with the PANSS, yield contradictory results [18, 19]. Interestingly, among forensic patients in Ireland, the diagnosis of non-psychotic mental disorders and personality disorders was associated with shorter LoS [14], while in the group of patients from the UK, the diagnosis of personality disorders was associated with prolonged detention [24]. The influence of co-occurring addiction on the length of psychiatric detention is still not fully understood. Some studies suggest that the diagnosis of addiction was associated with shorter detention time [18], while subsequent research showed opposite results [21, 22].

Among criminological factors, serving a sentence of imprisonment [17] was associated with longer LoS. Risk factors for prolonging psychiatric detention also include conflicts with the law in adolescence [17, 23]. Data from the literature show that the violent nature of an act, including a homicide and homicide attempt [21, 24, 30], is associated with a longer detention period, as is serious bodily injury [30]. In a study on the British population, the percentage of patients who committed sexual offenses and arson was significantly higher in the group of long-stay patients, moreover, a significant percentage of these patients committed offenses while in hospital, while nearly a quarter of patients from the long-stay group has committed an attack on medical personnel in the last 5 years [24].

So far, the vast majority of studies on forensic patients, with few exceptions [25], are conducted locally, and data concern the population of individual countries. Forensic psychiatry care systems in each country differ, for example, in criteria for admission to forensic psychiatric wards, treatment evaluation principles, or the legal framework for detention [26, 27]. For this reason, the results of studies conducted in other countries cannot be directly extrapolated to the population of Polish forensic psychiatric patients. The results of a comprehensive analysis of factors influencing the duration of stay of Polish patients in forensic psychiatric wards, developed by us on the basis of the analysis of data from the same study group, indicate a significant impact of several factors on general LoS, as: the diagnosis of schizophrenia or schizoaffective disorders, the severity of the committed act (including a homicide and homicide attempt), duration of the disease, pharmacological treatment resistance, and an act committed during discontinuation of pharmacological treatment as well as under the influence of imperative hallucinations. [28]. In addition to the original assumptions, we have decided to supplement our primary analysis with an analysis of the risk factors of the long-stay hospitalization, defined as psychiatric detentions lasting, respectively, over 5 and over 7 years.

The aim of the present analysis was to examine the influence of individual criminological, clinical and sociodemographic factors on the occurrence of long-term psychiatric detention defined as the implementation of a preventive measure in the form

of compulsory treatment in a psychiatric hospital, lasting longer than five and seven years, respectively. The influence of systemic factors, such as legal conditions and resources of the assessed forensic center was not taken into consideration, although they are also known to affect the duration of hospitalization [29].

## Methods

### Data collection

Based on the analysis of the literature and clinical experience, a list of factors with a potential impact on the length of psychiatric detention was developed. The list included, among others, sociodemographic factors concerning the course of the illness, current treatment, the nature of the committed act, the current clinical state, the occurrence of aggressive and self-destructive behaviors in the last months, and the current pharmacological treatment. On the basis of the analysis of the available documentation, including: the documentation of the court proceedings concerning the offense, forensic psychiatric opinions on the mental state of the perpetrators during the acts, the course of previous detention, documentation of the current treatment, periodic forensic psychiatric opinions, a computer database was developed. The documentation was analyzed by a team of three experienced psychiatrists and two experienced psychologists with more than 10 years of practice working in the medium secured forensic psychiatry ward.

### Research group

The group consisted of 150 patients of the secure ward, 123 men and 27 women. All patients were treated in the medium secure forensic psychiatry unit of the Forensic Psychiatry Department, Institute of Psychiatry and Neurology in Warsaw, between 01/01/2014 and 31/12/2018. Data from all patients treated during this period were analyzed, no exclusion criteria were used. The mean time spent by patients in psychiatric detention was 39.14 months (*SD*: 42.45), while the mean time spent in the Department of Forensic Psychiatry IPIN was 21.11 months (*SD*: 15.12). A detailed demographic description of the study group was included in previous publications concerning the influence of individual factors on the duration of patients' stay [28].

From the analyzed group of 150 patients, 27 people had been in detention for longer than 5 years and 15 people for more than 7 years. Like other authors, we adopted the criteria for long-term stay of over 5 years and 7 years, assuming that this is a period sufficient for at least three several-month modifications of pharmacological treatment. In case of their non-sufficient effectiveness such time would be also enough to introduce clozapine treatment, basic and in-depth addiction therapy, social and cognitive skills training, in-depth group psychotherapy, and other most common therapeutic methods that can improve patients' mental condition.

### Statistical analysis

Due to the dichotomous nature of the variables, the student's *t*-test was used to determine the existing dependencies between individual factors and the duration of stay. In such a situation, performing the Student's *t*-test and Pearson's correlation is equivalent, because we get the same value of statistical significance *p*, which results from the construction of the Pearson's correlations and the method of calculating their significance – the Student's *t*-test is used to estimate significance. In order to use quantitative description for categorical variables, so-called dummy coding was used. For the remaining quantitative variables, the Spearman's rank correlation was calculated. Due to the non-parametric nature of the "illness diagnosis" variable, the Kruskal-Wallis ANOVA test was used to analyze the impact of the diagnosis.

### Opinion of the Bioethics Committee

The relevant Bioethics Committee at the Institute of Psychiatry and Neurology was notified of the nature and design of the study. Due to the retrospective and non-interventional nature of the study, the formal consent of the Commission was not obligatory (according to the Commission's letter of 06/06/2019). The commission raised no objections to the study design.

### Results

Among the analyzed factors, the factors related to the course of the last 6 months of patients' stay in hospital were most strongly correlated with the risk of long-term psychiatric detention. Chronic occurrence of psychotic symptoms ( $p = 0.001$  for detention  $>5$  and  $>7$  years), polytherapy with antipsychotic drugs (in both cases  $p = 0.001$ ), treatment with clozapine ( $p = 0.033$  for detention  $>5$  years), as well as the duration of the illness ( $p = 0.000$  and  $p = 0.001$ , respectively) were statistically significantly correlated with the treatment duration. There were no statistically significant effect of: the demographic factors, the presence of addiction, systematicity of treatment in the past, the characteristics of acts (expressed in their upfront planning, illness chronicity and the influence of psychotic symptoms on the acts), and committing acts under the influence of alcohol or psychoactive substances. It was also not found that committing an offense during the discontinuation of pharmacological treatment, age of patients at the time of admission in detention, or the number of previous detentions significantly influenced the risk of their long-term course. Similarly, we found no statistically significant correlations between the diagnosis of illness and the risk of many years of detention in relation to the detention of  $>60$  months ( $p = 0.3779$ ) and  $>84$  months ( $p = 0.5149$ ). Table 1 presents the analysis of the impact of individual factors.

**Table 1. Influence of individual factors on the probability of long-term hospitalization in the study group (Student's t-test for dichotomous variables, Spearman's rank-order correlation for quantitative variables)**

		Student's t-test									
		Length of stay >60 months					Length of stay >84 months (n = 15)				
		Mean 1*	Mean 2**	t	df	p***	Mean 1*	Mean 2**	t	df	p***
Demographical and clinical factors											
Sex (1 male; 2 female)		0.187	0.148	0.473	148	0.637	0.106	0.074	0.493	148	0.623
Place of residence (1 urban; 2 rural)		0.186	0.143	0.581	146	0.562	0.115	0.057	0.988	146	0.325
Mental disorders among family members (1 no; 2 yes)		0.203	0.097	1.371	147	0.173	0.119	0.032	1.423	147	0.157
Alcohol dependence (1 no; 2 yes)		0.218	0.139	1.257	148	0.211	0.103	0.097	0.108	148	0.914
Psychoactive substance abuse (1 no; 2 yes)		0.184	0.174	0.153	147	0.878	0.087	0.130	-0.803	147	0.423
Diagnosis of intellectual disability in the past (1 no; 2 yes)		0.185	0.176	0.081	145	0.936	0.100	0.118	-0.22	145	0.823
Regular (systematic) psychiatric treatment in the past (1 no; 2 yes)		0.188	0.083	0.905	148	0.367	0.109	0.000	1.202	148	0.231
Characteristics of the offence											
Characteristics of the offence (1 single; 2 continuing)		0.168	0.200	-0.482	148	0.630	0.084	0.127	-0.843	148	0.400
Offence previously planned or prepared (1 no; 2 yes)		0.173	0.192	-0.283	148	0.777	0.112	0.077	0.683	148	0.496

*table continued on the next page*

Offence under influence of alcohol/ psychoactive substances (1 no; 2 yes)	0.200	0.157	0.678	148	0.499	0.088	0.114	-0.542	148	0.588
Offence under influence of delusions (1 no; 2 yes)	0.18	0.176	0.061	148	0.952	0.103	0.088	0.258	148	0.797
Offence under influence of hallucinations (1 no; 2 yes)	0.176	0.186	-0.164	148	0.870	0.088	0.119	-0.610	148	0.543
Offence in the course of medicine discontinuation (1 no; 2 yes)	0.226	0.105	1.875	148	0.063	0.129	0.053	1.515	148	0.132
Clinical presentation in the last 6 months:										
Aggressive behavior (1 no; 2 yes)	0.162	0.242	-1.05	148	0.294	0.077	0.182	-1.781	148	0.077
Self-destructive behavior (1 no; 2 yes)	0.180	0.182	-0.016	148	0.987	0.180	0.182	-0.016	148	0.987
Persistent psychotic symptoms (1 no; 2 yes)	0.102	0.327	-3.528	148	0.001	0.102	0.327	-3.529	148	0.001
Treatment with >1 antipsychotics (1 no; 2 yes)	0.072	0.271	-3.253	148	0.001	0.0145	0.173	-3.317	148	0.001
Clozapine treatment (1 no; 2 yes)	0.163	0.444	-2.148	148	0.033	0.099	0.111	-0.114	148	0.910
Spearman's Correlation										
	N	Spearman's R	t(N-2)	p	N	Spearman's R	t(N-2)	p		
Age (years) at the admission to forensic unit	150	0.030	0.371	0.711	150	0.041	0.503	0.616		
Number of admissions to forensic unit	150	-0.157	-1.935	0.055	150	-0.085	-1.036	0.302		
Duration of mental illness (number of years from onset)	150	0.323	4.145	0.000	150	0.269	3.397	0.001		

\* Average of the values 0 (stay shorter than 60 months and 72 months, respectively) and 1 (stay longer than 60 months and 72 months, respectively) for trait no. 1 (e.g., male) of a given variable

(e.g., gender). For example, in men the probability of staying over 60 months is 18.7% and the probability of staying over 72 months is 10.6%

\*\* Average of the values 0 (stay shorter than 60 months and 72 months, respectively) and 1 (stay longer than 60 months and 72 months, respectively) for trait no. 2 (e.g., a woman) of a given variable (e.g. gender). For example, in women the probability of staying over 60 months is 14.8% and the probability of staying over 72 months is 7.4%

\*\*\* The p-value shows whether the observed differences in probabilities (Mean 1 and Mean 2) are so large that they cannot be interpreted as an effect of chance.

## Discussion

The analysis of the risk factors of long-term psychiatric detentions is highly important for the optimization of the treatment process of mentally ill perpetrators of prohibited acts. It is crucial to determine whether and to what extent the long-term isolation of these people is due to the clinical characteristics of their disorders, personality traits, coexisting addiction, the nature and severity of the acts committed by them, or legislative conditions, therapeutic possibilities and limitations of the care system, personal attitudes and concerns of forensic psychiatry staff. So far, no studies have been conducted in the population of Polish forensic psychiatric patients to answer the above-mentioned questions. It seems that decisions regarding the organization of the care system are made on the basis of clinical experience, the opinions of policymakers and solutions from other countries, rather than on data from research. A similar situation also applies to other Eastern European countries and some Central European countries. Our pilot studies of the patients of a medium secure center are an attempt to answer the above-mentioned questions. We are aware, however, that the presented data concern less than 5% of all patients for whom psychiatric detention is carried out in Poland, and the obtained results should be interpreted with caution, in respect to the limitations resulting from the characteristics of the study group.

The current analysis of risk factors for long-term psychiatric detentions was preceded by an analysis of factors influencing the length of stay of all patients [28] and an analysis of factors influencing the length of stay for patients diagnosed with schizophrenia. Among the factors influencing the overall length of stay of patients in forensic psychiatry centers, a statistically significant influence was found in the diagnosis of schizophrenia or schizoaffective disorders, duration of mental illness, type of act (homicide or attempted homicide), committing acts in the course of drug treatment discontinuation, presence of vivid psychotic symptoms, act being committed under the influence of hallucinations, and the need to be treated with more than one antipsychotic drug [28]. Some of the above-mentioned factors also turned out to be risk factors for long-term psychiatric detention.

The continuation of the implementation of the protective measure in the form of a person's stay in a psychiatric hospital (extension of psychiatric detention) takes place by a decision of the competent court, which considers the periodic opinion of the team providing the treatment issued every 6 months. Clinical experience shows



that in the overwhelming majority of cases it is a key factor determining the Court's decision. Thus, considering the risk factors of long-term psychiatric detention is to a large extent the same as considering which factors are perceived by doctors and psychologists as crucial for deciding to release or leave a patient in forensic psychiatric wards.

In the material we analyzed, none of the demographic factors was a risk factor for long term detention. The literature describes the influence of gender on the length of stay [23], which was not confirmed in our study. Similar findings were made with regard to the place of residence and the presence of illnesses from the schizophrenia spectrum in patient's family. Interestingly, the analysis of the factors influencing the length of stay in patients diagnosed with schizophrenia revealed a significant impact of mental illness diagnosis in a family on the length of stay in this group of patients [31]. Among the historical clinical factors, the literature devotes a lot of space to the influence of alcohol and psychoactive substance addiction and systematicity of treatment. If these conclusions are confirmed in subsequent studies, this may, to a large extent, determine the organization of care, for example: Do we need separate centers dedicated to the addicted mentally ill perpetrators of prohibited acts? Whether the emphasis on therapy of addictions in Polish forensic psychiatric care may reduce duration of stay in detention and thus reduce costs and burdens on the care system? Does the lack of cooperation and non-systematic treatment before the act affect the duration of detention? Can it be treated as a risk factor and to what extent?

In our group, we did not observe any significant impact of the diagnosis of addiction on the risk of long-term detention. There are no data to conclude that violation of abstinence in hospital conditions or the lack of criticism about addiction is the cause of many years of hospitalization, however, clinical experience suggests that such patients are quite frequent. In order to undoubtedly answer this question, it is necessary to conduct research on a larger and more representative group of patients that will include people from centers with all (three) levels of security.

Similarly, we found no significant effect of past treatment non-compliance on the length of stay, although it should be noted that only 12 patients (8%) had a history of treatment described as systematic. On the other hand, we observed a statistical trend ( $p = 0.06$ ) for the relationship between committing an offense in the course of drug treatment discontinuation and detention lasting at least 5 years. Although this requires further confirmation, it can be assumed that the optimization of cooperation in psychiatric treatment (compliance) may result in both a lower risk of committing an act (although this thesis requires verification in Polish conditions) and, if the act is committed, it may shorten the time of internment. So, can measures that have a significant impact on the implementation of pharmacological recommendations in general psychiatry, such as treatment with depot medications, affect the time and cost of forensic psychiatric treatment? Clinical intuition suggests that it is possible.

The duration of the illness turned out to be a statistically significant risk factor for both detentions lasting over 60 months and over 84 months. This correlation is partly due to the overlap between the duration of the illness and the duration of detention, however, the high level of correlation ( $p = 0.000$  and  $p = 0.001$ , respectively) supports

the thesis that the chronicity of the disease process (with the expected consequences in terms of, among others, cognitive impairment or deficits in the field of emotion recognition) negatively affects the duration of patients' stay in forensic psychiatry centers. We did not observe similar correlations with the age of the patients at the start of detention or the number of prior detentions.

Among the factors characterizing a criminal act, we did not find that whether the act was planned or not, single or continuous (which often happens in the case of crimes of abuse), committed under the influence of psychoactive substances or in the course of delusions or hallucinations, significantly influenced the risk of many years of detention, although in the analyzed group committing an act under the influence of hallucinations positively correlated with the overall duration of detention ( $p = 0.02$ ) [28]. While committing an act under the influence of psychotic experiences does not have to be interpreted by treatment teams as a significant risk factor in patients with remission of psychosis, earlier planning of the act, its chronicity (continuity) or committing an act while being intoxicated may often be a symptom of comorbid disorders, such as personality disorders and addiction. This is usually interpreted by treatment teams as an additional significant risk factor, which may delay the decision to release a person from detention. The data from the literature quite clearly indicate that the diagnosis of psychotic disorders may be a factor influencing both the overall duration of detention and the risk of a long stay [21, 22]. In our group, the diagnosis of schizophrenia or schizoaffective disorders was associated with the general extension of the duration of detention [28], however, there was no statistically significant correlation between the diagnosis of illness and the risk of detention lasting more than 5 or 7 years. It seems that the clinical condition of patients is much more correlated with the long-stay than the type of diagnosis.

The risk assessment related to the possible release of a mentally ill perpetrator from psychiatric detention should be based on current data. The current mental state of patients, the presence of aggressive behaviors and response to treatment are routinely taken into account by clinicians during risk assessments and periodic reviews. Therefore, it is not surprising that the analyzed material showed a significant correlation between factors related to the course of the last 6 months of hospitalization and the risk of long-term detention. This confirms previous observations of, among others, Völlm et al. [24] concerning the impact of aggressive behavior on the overall duration of detention as well as the risk of long stay. In our opinion, one of the most significant observations made during the current analysis is the significant impact of both chronic psychosis and the need to use polypharmacy (defined as treatment with  $>1$  antipsychotic drug) on the risk of detention exceeding 5 and 7 years. Our observations are consistent with data from other countries [18, 19, 23]. As our research was naturalistic, and clinical practice does not oblige psychiatrists to make a precise diagnosis in terms of response to pharmacological treatment, drug resistance was not marked in the analyzed source materials. Thus, we can only infer drug resistance on the basis of the reported clinical features (e.g., the presence or absence of psychotic symptoms) and the recorded pharmacological treatment (e.g., the need for polypharmacy). Nevertheless, the presented data

indicate the importance of drug resistance in the treatment of forensic psychiatric patients. Should, if long-stay centers in Poland emerge [16], therapeutic interventions in them focus on psychotherapeutic and social interactions and on improving the quality of life of patients, or on optimizing antipsychotic treatment? It may be necessary to associate such centers with academic centers to ensure the availability of optimal pharmacological treatment.

It also seems important to answer the question what is the percentage of patients in Poland detained for more than 5 or 7 years and what is the percentage of detained patients who can be classified as drug-resistant (no data on this issue). In the study group, a relatively small percentage of patients were treated with clozapine ( $n = 9$ ), which is surprising for the authors in the context of the relatively high percentage of patients with vivid psychotic symptoms ( $n = 52$ ; 34.7%). The study protocol did not allow for verification of prior (prior to admission to the last center) antipsychotic treatment. Therefore, previous clozapine treatment trials terminated due to intolerance or lack of efficacy could not be excluded. The lack of an intramuscular form of the drug may also be important, which, in the context of the lack of cooperation and the presence of oppositional behaviors in the context of forensic psychiatry, may discourage clinicians from using clozapine.

To sum up, in the analyzed material, the risk of long-term hospitalization was significantly correlated with factors related to the course of the last 6 months of internment, including the mental state of patients, the occurrence of aggressive behavior and the reaction to pharmacological treatment. There was no significant influence of demographic factors or coexisting addiction to alcohol and psychoactive substances. The risk of long-term psychiatric detention increased with the duration of the illness, but there was no correlation with the age of patients at the start of detention or the fact of being detained in the past. Similarly, the type of the diagnosis was not found to be a risk factor.

Due to the limitations resulting from the retrospective and cross-sectional nature of the study, the obtained results require confirmation in subsequent studies, including a larger and more representative group of patients (including those treated in centers with basic and maximum security level). We are also aware that the duration of treatment in forensic psychiatry for the vast majority of patients will be longer than that reported during the study, as most patients will continue the implementation of the protective measure in basic security facilities. However, what is worth noticing, the results presented by us are the first systematic attempt to analyze the duration of detention and the factors influencing the duration of this treatment in the conditions of Polish forensic psychiatry. Another limitation of the study is not random, but based on decision of the Commission for the Implementation of Protective Measures operating at the Minister of Health, allocation of patients to forensic psychiatry centers, including our center. Nevertheless, in order to maintain the most naturalistic nature of the study, the analysis covered all patients hospitalized in the center in the indicated period.

It is worth mentioning that the observations made during the study did not largely coincide with predictions of the authors. Among others, the lack of correlation be-

tween the risk of a long stay and the coexistence of addiction, the occurrence of auto-aggressive behaviors, planning offences or committing them under the influence of psychoactive substances, was a kind of surprise for the authors, who are also clinicians. In the context of the planned reform of forensic psychiatry and the decisions that will be faced by authorities, including those concerning the legitimacy and nature of establishing long-stay centers, possible profiling of other court centers and the nature of therapeutic interventions implemented in these institutions, it is undoubtedly justified to verify the presented conclusions in studies involving a larger and more representative group of patients from forensic centers in Poland.

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