Longer than prison? A comparison of length of stay in a medium security hospital and prison for perpetrators of violent crimes other than homicide or attempted homicide

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Abstract

Background: Concerns have been raised that people detained in secure hospitals after a criminal act spend longer in a locked psychiatric institution than people sent to prison for similar offending. However, research evidence is scarce and conflicting.

Aims: To compare length of stay of patients in forensic inpatient care who have been convicted of crimes for which flexible sentencing is allowed with length of stay in prison for people serving a prison sentence for similar crimes who were not found mentally ill.

Methods: An archival, cross-sectional, retrospective study was conducted comparing length of stay of all inpatients in one medium security hospital in Poland hospitalized between 2014 and 2018, who were convicted of any interpersonal crime other than homicide or attempted homicide and length of stay of all prisoners in Poland convicted of a similar range of offences and serving their sentence on 09.05.2018. Homicide was excluded because a conviction led to a life sentence in Poland until the 1970's and currently attracts a 25-year imprisonment term, disrupting the comparison of length of stay.

Results: Eighty-two patients had been discharged from the secure hospital within the study period or were in the hospital at the end of the study period on 09.05.2018. Ten of them women. Male patients convicted of stalking, a threatening offence or of 'mistreatment' spent on average significantly longer in hospital than men sentenced to imprisonment in prison (14.9 months and 28.8 months respectively). By contrast, men convicted of sex offences spent on average 37.5 fewer months in hospital than the comparison group spent in prison. Only bodily harm offences demonstrated comparable lengths of stay in hospital and prison.

Conclusions: Our findings confirm significant disparities in length of stay in a forensic hospital and prison for individuals committing serious interpersonal offences. These disparities were not

uniform, indicating that neither a prison sentence or forensic order consistently led to longer detention across all offence-types. Knowing that length of stay should depend mainly on risk assessment, our findings may suggest disproportionately long deprivation of liberty in some cases. Next steps should explore reasons for this and long-term patient outcomes.

Background

Forensic psychiatry has two, often contradictory, expectations: to take care of mentally disordered offenders who have committed criminal offences and to ensure the safety of society by isolating these individuals when they pose a risk of (criminal) harm to themselves or others or are not ready to reintegrate into society (Stone 1984; Weiner 1984; Halleck, 1984, Appelbaum 1997). Treatment for people with these difficulties may be provided in specialist inpatient services or, in some countries, specialist outpatient services (Völlm et al., 2018). The former invariably involves some deprivation of an individual's liberty and the latter often imposes some constraints on it. The problem of having to show improvements in both health and safety before restrictions are likely to be lifted may mean that inpatient treatment might exceed the maximum length of a prison sentence that would be given to an offender who was not suffering from a mental disorder (Sampson et al., 2016). This poses a risk of disproportionately lengthy periods of involuntary treatment in forensic institutions.

Since 2000, research activities in forensic psychiatry have focused on risk assessment, systems differences, preventing reoffending, quality of care, and the quality of life of forensic patients (Davoren et al., 2015; Sampson et al., 2016; de Girolamo et al., 2019; Connell et al., 2019; Kirchebner et al., 2020; Gosek et al., 2020). Forensic psychiatric treatment is not intended to be a punishment for criminal behaviour, and there are limitations to directly comparing length of stay (LoS) in treatment and carceral settings. However, when considering the rationale for inpatient compulsory treatment and deprivation of liberty, it is clinically and ethically important to take into account the proportionality of the period of liberty deprivation (Heitzman et al., 2020). This is one of the crucial issues in discussions regarding the ongoing reform of forensic psychiatric care in Poland.

Forensic psychiatric inpatient care in Poland is a three-tier system with two maximum/high security hospitals, seventeen enhanced/medium security hospitals, and forty-three low security units, collectively caring for almost 3000 inpatients. Placement in such a hospital or unit is possible only when it becomes necessary to prevent reoffending which leads to high social harm and where other legal measures are not sufficient to achieve this goal. The legal framework allows detention (involuntary forensic psychiatric treatment) for individuals who were clinically unwell at the time of the criminal act or for those with diminished criminal responsibility due to a mental disorder in cases of severe crimes and whose risk of reoffending is judged by an expert in forensic psychiatry to be high. The Board for Preventive Measures, an institution under the direct control of the Ministry of Health, provides a central mechanism for the allocation of inpatients.

Surprisingly, few authors have tried to address this question. Harris et al. (1991) in Canada, compared length of institutional stay of matched groups of 280 male insanity acquittees sent to hospital and 238 convicted offenders sent to prison. They found that the former group were in locked facilities for a significantly longer period. Results of other studies were inconsistent (Pasewark et al., 1979; Pasewark et al., 1983; Braff et al., 1983; Metraux 2008; Draine et al., 2010). Our aim in the present study was to investigate whether there were significant differences in the average length of secure institutional detention between forensic patients in hospital and prisoners convicted of similar offences.

Methods

Ethics

The Ethical Commission of the Institute of Psychiatry and Neurology in Warsaw was informed about the project and did not raise any objections. As the nature of the study was retrospective and non-interventional, individual patient / inmate consent was not required.

Data collection

An electronic database was developed to document clinical, demographic and legal characteristics, including length of stay, was extracted from the records of all patients who were in hospital at the end of the study period (09.05.2018, LoS calculated till this date) or had completed their stay in one medium security forensic hospital (60 beds, 2 units) at any time between January 2014 and December 2018 (LoS calculated till the date of leave). These units have a design and range of therapies that do not significantly differ from the national standard for such units. Homicide was excluded because a successful conviction led to a life sentence in Poland until the 1970's and currently attracts a 25-year imprisonment term. A forensic treatment order is not subject to these sentencing guidelines. At the other extreme, the small number of patients admitted following convictions for non-violent convictions were also excluded.

Variables were grouped into: demographic data (e.g. age, sex, residence status, employment at the time of offence, educational level), clinical data (e.g. diagnosis, treatment pathway, mental disorders among relatives, history of alcohol/drug abuse, treatment in the past), characteristics of the offence (e.g. single event/ongoing, planned/not planned, influence of alcohol/psychoactive substances, offence while discontinuing medication), and clinical presentation in the last 6 months (e.g. persistent psychotic symptoms, self-harming behaviours, medication). Data were entered into the electronic database by trained psychologists and psychiatrists. Reliability checks were performed for all entries before the statistical analysis.

Data on prisoners who had been convicted of a similar range of offences (listed in Table 1) were specially requested and received from the Information and Statistics Office of the Central Board of Prison Service. The data concern all prisoners in Poland serving a sentence on 09.05.2018 (convicted and sentenced by a court).

Statistical analysis

The statistical methods used in the comparison were determined by the nature of the data we had available from the Central Board of Prison Service. The comparison involved a large (n= 8389) sample of prison inmates and a relatively small (n= 82) sample of forensic hospital patients. With this kind of data, it was possible to assume that the average error in this set of data on prisoners was very small and we could calculate average values without standard deviations. Accordingly, we chose to conduct one sample t-tests. To estimate statistical significance, we used the averages between the prison and forensic groups.

Results

The electronic database indicated that among 150 patients in total, 47 were perpetrators of homicide or attempted homicide and, at the other extreme, 21 had been convicted of only minor property or public order offences. This left a sample of 82 inpatients who had committed violent or sexual contact offences - 72 men and 10 women. The most frequently diagnosed mental disorders were schizophrenia spectrum disorder (n=50, 61.0%), followed by brain injury syndrome (n=13, 16.3%) and delusional disorder (n=10, 12.2%). Just over one third (n=28, 34.1%) of patients suffered from persistent psychotic symptoms and just over half (n=44, 53.6%) required treatment with more than one antipsychotic medication. Their mean age was 43.4 years (range 21–81, SD 13.4), and mean length of stay in the secure hospital unit was 39.1 months (range 1–211, SD 42.5).

Offences included perpetration of bodily harm (n=2,106), threatening to commit a crime (n=467, sexual offences (n=2,425) and mistreatment (n=3,569). According to the classification of criminal behaviour used by the Polish Criminal Code (1997), these categories were defined as follows: *bodily harm*: any level of bodily harm, intentional or not; *threatening to commit a serious crime:* stalking or threats of severe bodily harm or homicide; *sexual offences*: all forms of rape, unforced sexual intercourse with minors, presenting pornography to minors, exhibitionism; *mistreatment:* mistreatment of subordinates or vulnerable people.

Table 1 shows the lengths of stay of males in the secure hospital and prison. People stayed significantly longer in the hospital than in prison following conviction for threats to commit a crime ($p<0.001$) and mistreatment ($p<0.001$). The hospitalized men who had threatening to commit a crime spent an average of 14.9 months longer in hospital than prisoners in this offence group. Male patients convicted of mistreatment were institutionalised for over two years (average 28.8 months) longer than the men in prison for these offences. By contrast, there was a significant difference in the other direction following conviction for sexual offences ($p<0.001$). In this study, only men had been convicted of sex offences; those in hospital had a length of stay, on average, for over three years less (37.5 months) than the inmates. Only for bodily harm offences was length of stay similar between patients and prisoners.

A table containing all data on LoS of both samples (including both males and females) is available in supplementary materials.

4. Discussion

The results of our study show that the average length of stay of forensic psychiatric inpatients who committed non-life-threatening offences was longer than prison sentences given to individuals who had committed similar offences. This finding is in line with the small number of studies that have

found that mentally ill people are likely to stay in jails and prisons longer than individuals without mental illness (Metraux 2008; Draine et al., 2010). Our findings, if confirmed by subsequent studies, indicates a need to consider whether remedies including deprivation of liberty in the form of psychiatric detention, when ordered for less serious offenders, are adequate and proportionate to the scale of risk. The length of stay for patients should reflect the risk they pose. Unlike in some countries where risk assessment is commonly conducted with structured professional judgment tools (e.g. the HCR-20), in Poland, risk assessment is conducted on the basis of clinical judgement alone. This is problematic as this approach is unstandardized and creates the possibility that risk assessments, and consequently, LoS, are subjectively or inconsistently calculated.

A possible explanation for greater average LoS in forensic inpatients than individuals in prison may be related to chronic psychotic illness and the presence of active psychotic symptoms, which have been observed in a significant percentage of forensic inpatients. Aggression, self-harm, or substance abuse could be other significant factors that prolong length of stay (Ross et al., 2012; Andreasson et al., 2014). The number of patients displaying aggressive behaviors in our sample was greater than 20%. Unfortunately, we do not have data on aggressive or self-aggressive behaviors in the group of prisoners. Similarly, we do not have access to data on the co-occurrence of personality disorders among both patients and inmates.

The cross-sectional design of our study limits the possibility of evaluating total LoS as we collected data on patients in one hospital which forms only part of their total LoS in forensic services. As forensic inpatient care in Poland is a three-step model containing units different security levels, patients are transferred between centers. The vast majority of patients whose data were analysed have been or will be transferred to further facilities (usually low security) for continued detention. Despite this, we can observe that for some types of crimes, like mistreatment and threatening to

commit a crime, average LoS for forensic patients was significantly longer than the prison comparison group.

This may be particularly salient in the case of perpetrators of homicide. In these cases, overall LoS may be much longer than the LoS reported in this study as it's well documented that these offenders often spend much longer in forensic settings than perpetrators of other crimes (Ross et al., 2012; Andreasson et al., 2014). Additionally, in the Polish legal system some perpetrators of homicide are sentenced to life imprisonment and are mostly treated in the two maximum security units, and thus are not covered in the hospital database we analyzed. Therefore, to avoid misleading conclusions, we excluded this group from the analysis.

Our study highlights the need for future research into why forensic patients in Poland are kept in medium security hospitals for significantly longer periods than similarly convicted offenders in prison. This is one of the crucial issues currently being discussed regarding the ongoing reform of forensic psychiatric care in Poland (Heitzman et al., 2020).

Potential explanations of thes discrepancies found in our study may include doctors' fear of premature dismissal due to community pressure, lack of validated risk assessment tools, fear of legal consequences, or the lack of alternative procedures and care (e.g. easy access to outpatient or social psychiatric services). It should be noted that reoffending rates for mentally disordered offenders might be higher than for general offenders (Bengtson et al., 2019), although evidence is mixed on this point (Fazel et al., 2016), which might restrict/impede the hospital discharge rate. A primary aim of further research should be to clarify whether these findings can be replicated in other countries and legal systems and whether this applies to all patients. A further question to be addressed is what the influences of the above-mentioned factors on discrepancies in treatment/sentence length are. These studies should calculate total LoS throughout the forensic care system (from admission to discharge), and have adequate sample sizes that include patients with a

wide spectrum of symptom severity, risk and needs. Finally, the correlation between mental state (severity of psychosis, aggressivity or self-harm behaviors in the course of inpatient treatment, and treatment non-compliance) and LoS of mentally disordered offenders needs further research.

This study makes a novel contribution to the European literature on LoS in forensic settings and an entirely original contribution to the Polish literature. However, there are several limitations that should be noted. As highlighted above, first, prison sentences were compared to average patient LoS calculated from time of admission to the first forensic hospital (usually high or another medium security setting) to the date of data extraction from clinical files or date of transfer from our forensic department to a low security forensic hospital. As forensic inpatient care in Poland is a three-step model with units of high, medium, and low security, it should be assumed that the mean LoS of forensic inpatients is longer than that used for our comparisons, as most inpatients transferred from our department spend at minimum an additional 6 months in hospitals with low level of security. This would likely make the observed differences in LoS even more prominent.

Second, in an effort to make the comparison of patients and inmates more meaningful (i.e. that we are comparing comparable groups) certain offence types were omitted as these are distributed differently in the forensic and penal populations. However, future studies should include other forms of offending such as intentionally life-threatening offences and crimes against property to investigate how these compare between groups. An additional limitation of our study is the retrospective design and sample size. Finally, an important limitation is the lack of direct data on the mental state of the prisoners. Due to the character of the data, including lack of detailed demographic data on the prison inmates, we have not been able to match the samples. To be able to draw conclusions and relate our observations to the entire population of forensic patients, the results of the study need to be replicated in a larger sample.

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Data Availability Statement:

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions

Conflict of Interest Statement:

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Table 1 - Length of stay of male perpetrators of non-life-threating crimes in medium secure unit and prisons.

	PRISON SERVICE		FORENSIC SERVICE				
	n=	Mean length of prison sentenced (months)	n=	Mean LoS (months)	Range (months)	Differences in LoS between prison and forensic hospital stay (in months).	One Samp t-Test p=

Body Harm:	2027	38.87	18	37.67	8-192	1.20	0.617
Severe bodily harm	478	50.63					
Severe bodily harm not intentional	4	17.75					
Severe bodily harm resulting in death	360	94.07					
Mild bodily harm	985	20.10					
Mild bodily harm lasting not longer than 7 days	199	10.36					
Mild bodily harm not intentional	1	9.00					
Threatening to commit a crime:	461	9.63	18	24.49	4-122	-14.86	<0.001
Threats	355	10.70					
Stalking	91	12.78					
Stalking with impersonation	2	5.50					
Stalking resulting in suicide attempt	3	34.33					
Sexual offences:	2413	73.12	17	35.70	1-142	37.42	<0.001
Rape (defined as forced sexual intercourse)	1133	65.84*					
Forced other sexual activity	75	35.36					
Rape of juvenile	170	80.55					
Rape of family member	200	78.69					
Rape committed together with another perpetrator	54	80.78					
Rape committed with particular cruelty	48	124.88					
Sexual intercourse with minors	730	49.99					
Presenting pornography to minors	2	17.50					
Sexual activity in the presence of minors as a form of exhibitionism	1	10.00					
Mistreatment:	3498	14.30	19	43.10	3-209	-28.80	<0.001
Mistreatment of subsidiaries in the context of employment	3426	15.73					
Mistreatment of clumsy people due to age, mental or physical condition	13	12.46					
Mistreatment committed with particular cruelty	20	54.85					
Mistreatment resulting in suicide attempt	39	35.64					

* excluding sentence of lifelong imprisonment

Table for supplementary materials - Length of stay in medium secure unit and prisons of perpetrators of non-life-threating crimes.

Current prison sentence - data from Prison Service

	sex	n=	Mean length of prison sentenced (months)	sex	n=	Mean length of prison sentenced (months)
Body Harm:						
Severe bodily harm	F	34	37.24	M	478	50.63
Severe bodily harm not intentional	F	1	23.00	M	4	17.75
Severe bodily harm resulting in death	F	19	72.42	M	360	94.07
Mild bodily harm	F	18	17.33	M	985	20.10
Mild bodily harm lasting not longer than 7 days	F	7	11.29	M	199	10.36
Mild bodily harm not intentional	F	0	0	M	1	9.00
Total	F	79		M	2027	
Threatening to commit a crime:						
Threats	F	5	9.40	M	355	10.70
Stalking	F	1	12.00	M	91	12.78
Stalking with impersonation	F	0	0	M	2	5.50
Stalking resulting in suicide attempt	F	0	0	M	3	34.33
Total	F	6		M	461	
Sexual offences:						

Rape (defined as forced sexual intercourse)	F	1	66.00	M	1133	65.84*
Forced other sexual activity	F	0	0	M	75	35.36
Rape of juvenile	F	3	102.00	M	170	80.55
Rape of family member	F	1	42.00	M	200	78.69
Rape committed together with another perpetrator	F	0	0	M	54	80.78
Rape committed with particular cruelty	F	1	66.00	M	48	124.88
Sexual intercourse with minors	F	6	52.00	M	730	49.99
Presenting pornography to minors	F	0	0	M	2	17.50
Sexual activity in the presence of minors as a form of exhibitionism	F	0	0	M	1	10.00
Total	F	12		M	2413	
Mistreatment:						
Mistreatment of subsidiaries in the context of employment	F	69	12.96	M	3426	15.73
Mistreatment of clumsy people due to age, mental or physical condition	F	0	**	M	13	12.46
Mistreatment committed with particular cruelty	F	2	38.00	M	20	54.85
Mistreatment resulting in suicide attempt	F	0	**	M	39	35.64
Total	F	71		M	3498	

Forensic patients sample (n=82) - LoS in the Forensic Hospital

	sex	n=	Mean LoS (months)	Range:	*sex*	n=	Mean LoS (months)	Range:
Bodily Harm	F	5	28.40	8-81	M	18	37.67	8-192
Threats	F	4	25.00	6 – 41	M	18	24.94	4-122
Sexual offences	F	0	**	**	M	17	35.70	1-142
Mistreatment	F	1	20	**	M	19	43.10	3-209
Total	F	10			M	72		

Differences in LoS between prison and forensic hospital stay (in months). One Sample t-Test

	Female	p	Male	p	Overall	p
Bodily Harm	8.51	0.244	1.20	0.617	3.14	0.074
Threats	-15.91	***	-14.86	**<0.001**	-14.88	-2.52
Sexual offences	**	**	37.42	**<0.001**	**	**
Mistreatment	-8.06	**	-28.80	**<0.001**	-27.69	-1.98

* excluding sentence of lifelong imprisonment
** not calculated, as number of women was 0 or 1
*** not calculated, due to the small number (n=6) of women in the prison group, the assumption of negligible average error in this group cannot be applied

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