Service Evaluation of an Adult Inpatient Mental Health Service: Features Associated with a Positive Forensic History

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Aim & Background

Aim

To explore features associated with forensic history within a general adult inpatient psychiatric population.

Background

It is important to consider how the needs of psychiatric inpatients with a forensic history may differ from those without.

Method

We conducted a single centre retrospective analysis of electronic records of 85 discharges from an adult mental health unit from 04/03/2019 – 05/08/2019.

We collected information on demographics, features of admission, diagnosis and re-admission status. We compared two cohorts; patients with (n = 29) and without (n= 56) a known forensic history.

Results

Demographics

Those with a positive forensic history were more likely to be male (OR 1.22, CI 0.528-3.300, P = 0.553), single (OR 2.82, CI 1.071-7.26, P=0.036) and unemployed (OR 5.40, CI 1.147-25.415, P = 0.033).

Social History

They were more likely to have a history of substance misuse (OR 19.37, CI 4.187 – 89.616, P = <0.001). The most common drug of misuse was cannabis (48.3% versus 14.3%) followed by alcohol dependence (34.5% versus 17.9%).

Features of Admission

During admission they were more likely to require transfer to PICU (OR 4.28, CI 1.437-12.734, P = 0.009), seclusion (OR 4.59, CI 1.370-15.383, P = 0.014), police involvement (OR 4.28, CI 1.447-12.734, P = 0.009) and use substances (OR 8.59, CI 1.654-44.636, P = 0.011).

They were more likely to be detained on admission (OR 3.03, CI 1.149-7.982, P = 0.025) or detained at some point during admission as a whole (OR 4.02, CI 1.198-13.477, P = 0.024)

Diagnosis & Follow-Up

The positive forensic history cohort were more likely to receive a diagnosis of a substance misuse disorder (OR 3.67, CI 1.27 – 10.58, P = 0.016) but less likely to receive a diagnosis of schizophrenia/delusional disorder (OR 0.63, CI 0.24-1.69, P = 0.363) or mood disorder (OR 0.16, CI 0.03-0.73, P = 0.018).

They were also more likely to have been re-admitted within one month (OR 4.14, CI 1.099-15.739, P = 0.036) and three months (OR 5.09, CI 1.643-15.785, P = 0.005)

	Positive forensic history		No forensic history		Odds Ratio	CI (95%)	Significance Level
Characteristics	n= 29	%	n= 56	%			
Demographics							
Male gender	18	62.1%	31	55.4%	1.22	0.528 - 3.300	P = 0.553
Single marital status	21	72.4%	27	48.2%	2.82	1.071 - 7.426	**P = 0.036**
Unemployed	27	93.1%	40	71.4%	5.40	1.147 - 25.415	**P = 0.033**
Social History							
Positive substance use history	27	93.1%	23	41.1%	19.37	4.187 - 89.616	**P = < 0.001**
Admission Features							
Detained on admission	21	72.4%	26	46.4%	3.03	1.149 - 7.982	**P = 0.025**
Detained at any point in time	25	86.2%	38	67.9%	4.02	1.198 - 13.477	**P = 0.024**
Known to services	25	86.2%	44	78.6%	1.64	0.475 - 5.633	P = 0.435
Transfer to PICU required	11	37.9%	7	12.5%	4.28	1.437 - 12.734	**P = 0.009**
Episode of seclusion	9	31.0%	5	8.9%	4.59	1.370 - 15.383	**P = 0.014**
Police Incident	11	37.9%	7	12.5%	4.28	1.437 - 12.734	**P = 0.009**
Used substances during admission	7	24.1%	2	3.6%	8.59	1.654 - 44.636	**P = 0.011**
Diagnosis							
F10-19 diagnosis	11	37.9%	8	14.3%	3.67	1.2701 - 10.580	**P = 0.016**
F20-29 diagnosis	8	27.6%	21	37.5%	0.63	0.239 - 1.688	P = 0.363
F30-39 diagnosis	2	6.9%	27	48.2%	0.16	0.034 - 0.731	**P = 0.018**
Re-admission							
Within 1 month	7	24.1%	4	7.1%	4.14	1.099 - 15.739	**P = 0.036**
Within 3 months	11	37.9%	6	10.7%	5.09	1.643 - 15.785	**P = 0.005**

Table 1. Prevalence of demographics and characteristics including OR, CI and P value (bold denotes statistically significant results

Conclusion & Discussion

Those with a positive forensic history appear to have resource intensive admissions requiring PICU, seclusion and police involvement. They are also more likely to have a past history of substance misuse and to also use illicit substances during their admission period. Therefore it may be expected that this cohort were more likely to receive a diagnosis of psychoactive substance use (F10-19 diagnoses as per the ICD-10).

Although the study has a modest sample size we managed to collect a complete data set without any missing data using a single data collector to allow consistency. The small data set is likely to have contributed to the wide confidence intervals shown in the results.

The presence of forensic history was taken from the clerking document completed on admission. Unfortunately we are unable to differentiate whether the forensic history was recent or remote and we do not have details of the exact nature of the forensic history such as charge or offence.

Furthermore we did not collect data on the clinical rationale for the use of seclusion e.g. incidents of violence or aggression. However the trends demonstrated show that those with a positive forensic history are more likely to require seclusion, PICU or police input. It is important to consider that a positive forensic history may contribute to clinician's decision making when deciding whether to utilise seclusion, for example, if the patient has a history of violent crimes towards others.

Those with a positive forensic history were more likely to require police input due to a directly aggressive or violent incident such as criminal damage, assault on others, threats of violence or significantly disruptive behaviour (42.9% versus 33.3%) as opposed to non-violent incidents such as support with AWOL procedure.