

AGGRESSIVENESS IN INVOLUNTARY TRANSPORT IN MENTAL ILLNESS PEOPLE

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Introduction

Psychiatric involuntary hospitalization (IH) and its risk factors have been debated in several studies (1). Nevertheless is so much unknown about an involuntary transport (IT) to mental health facility. Violence seems to be a risk factor associated to IH (2) in mental illness people, particularly in psychotic disorder (3). A solid knowledge of violence related factors could lead to improve the quality of violence control during IT.

Objectives

To examine risk and protective factors associated with violent behaviour during IT.

Methods

A descriptive, observational and cross-sectional study was conducted. A total of 286 mental illness subjects were assisted by a psychiatric home-care unit (EMSE) in Barcelona during their IT. Aggressiveness was assessed by the Aggressive Behaviour and Violence scale (AVAT). Other socio-demographic and clinical data were also collected WHO Disability Assessment Schedule (WHO/DAS), Clinical Global Impression Scale (CGI) Global Assessment of Functioning Scale (GAF), Severity of Psychiatric Illness (SPI), Positive and Negative Syndrome Scale (PANSS) and Scale to Assess Unawareness of Mental Disorder (SUMD).

Data were compared using Chi-square and Student's T test between aggressive and non-aggressive patients in the main sample (all patients). A logistic Regression was also performed. This same analysis was performed considering only the psychotic patients belonging to the main sample.

Results

Table 1. Clinical characteristics in aggressive and non-aggressive individuals.

Aggressiveness	Main sample (N=286)			Psychotic disorders sample (N=185)		
	Yes	No	p	Yes	No	p
Male (n%)	83 (52,2%)	76 (47,8%)	0,135	57 (57,6%)	42 (42,4%)	0,014
Drug use (n%)	34 (59,6%)	23 (40,4%)	0,053	22 (55%)	18 (45%)	0,451
No psychiatric visits (n%)	120 (48,2%)	129 (51,8%)	0,985	7 (41,2%)	83 (51,9%)	0,402
Known psychiatric background (n%)	100 (45,9%)	118 (54,1%)	0,170	65 (46,1%)	76 (53,9%)	0,082
Previous hospital admission (n%)	14 (50%)	14 (50%)	0,861	9 (45%)	11 (55%)	0,782
Not under treatment (n%)	82 (44,8%)	101 (55,2%)	0,097	50 (43,5%)	65 (56,5%)	0,036
Age mean (SD)	47,1 (18,3)	46,6 (18,1)	0,816	46,6 (17,7)	47,4 (16,9)	0,763
Number of visits mean (SD)	3,3 (4,8)	3,2 (2,1)	0,854	2,9 (1,4)	3,2 (1,7)	0,763
AVAT mean (SD)	6,8 (2,5)	3,0 (1,9)	0,000	6,6 (2,4)	3,1 (1,7)	0,133
WHO/DAS mean (SD)	13,7 (3,7)	12,5 (4,0)	0,014	13,3 (3,7)	12,4 (4,0)	0,000
CGI mean (SD)	5,4 (0,8)	5,1 (0,7)	0,002	5,5 (0,6)	5,5 (0,6)	0,087
GAF mean (SD)	11,1 (1)	33,5 (11,2)	0,017	29,9 (10,2)	32,2 (10,5)	0,001
Total SPI score mean (SD)	17,5 (4,1)	15,4 (4,0)	0,000	17,6 (4,0)	17,6 (4,0)	0,116
SUMD mean (SD)				12,8 (3,0)	13,1 (2,7)	0,000
PANSS P mean (SD)				32,1 (5,5)	26,2 (6,6)	0,594
PANSS N mean (SD)				21,7 (7,4)	21,8 (8,0)	0,000
PANSS GP mean (SD)				49,3 (9,9)	44,1 (8,9)	0,896

Abbreviations: AVAT = Aggressive Behavior and Violence scale, WHODAS = World Health Organization Disability Assessment Schedule. GAF = Global Assessment of Functioning scale, CGI = Clinical Global Impressions Severity of Illness scale, SPI = Severity of Psychiatric Illness scale, SUMD = Scale to assess Unawareness of Mental Disorder, PANSS-P = Positive subscale of the Positive and Negative Syndrome Scale, PANSS-N = Negative subscale of the Positive and Negative Syndrome Scale, PANSS-GP = General Psychopathology subscale of the Positive and Negative Syndrome Scale, p is significant at 0.05

Table 2. Logistic regression model assessing the relative contributions of different variables in aggressiveness in involuntary transport for 249 individuals.

	B	df	Sig.	Exp(B)	EXP(B) (CI. 95%)	
					Lower	Upper
Known psychiatric background	0,952	1	0,028	2,59	1,11	6,045
Need of Police	-0,993	1	0,016	0,37	0,165	0,831
AVAT	1,005	1	0,000	2,733	2,11	3,54
GAF	0,042	1	0,027	1,043	1,005	1,083
Drug use	1,553	1	0,004	4,724	1,657	13,472
Constant	-7,244	1	0,000	0,001		

The model had statistically significant predictive power ($X^2= 156.119$, $p<0.001$)
The area obtained under the ROC curve was 0.906 ($P<0.001$, 95% CI 0,871-0,940)

Table 3. Logistic regression model assessing the relative contributions of different variables in aggressiveness in involuntary transport for 183 psychotic individuals.

	B	df	Sig.	Exp(B)	EXP(B) (CI. 95%)	
					Lower	Upper
Sex	1,122	1	0,019	3,07	1,205	7,821
PANSS_P	0,076	1	0,050	1,079	0,997	1,169
PANSS_N	-0,062	1	0,040	0,94	0,886	0,997
AVAT	0,895	1	0,000	2,448	1,82	3,293
Drug use	2,027	1	0,002	7,594	2,129	27,08
Constant	-7,206	1	0,000	0,001		

The model had statistically significant predictive power ($X^2= 113,754$, $p<0.001$)
The area obtained under the ROC curve was 0.907 ($P<0.001$, 95% CI 0,867-0,948)

Conclusions

- Clinical severity, poor functioning and higher disability were associated with aggressiveness (3) in mental illness people.
- Clinical severity and positive psychotic symptoms were associated with aggressiveness in psychotic disorder's sample(3).
- Drug use was the variable that more strongly predicted aggressiveness in both samples.

References

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