Research article
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Evaluation of dangerousness of Greek mental patients

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There is a diachronic interest on the evaluation of the risk of violence by mental patients. Difficulties that have been underlined concern the definition of the term dangerousness and the different methods of approaching it. Accurate risk assessments are particularly important for psychiatric patients, with history of violence, in indoor care. The accuracy of predictions can better determine the patients designated as "at risk" for violence and avoid false designations. The aim of this study was to investigate the probability of patients, from several psychiatric units, to become violent after their discharge and over the next three years. We also investigate the predictive validity and accuracy of the HCR-20 in relation to post-discharge outcomes. Two hundred ninety five (295) psychiatric patients, from several psychiatric units, were assessed with the HCR-20, PCL: SV and GAF scales at discharge (using case file data, interviews with the patients and the clinicians of the units, and also information from the collateral informants) and were monitored for violent episodes over the following three years. The study was conducted in two phases: 1st phase: During the last week before discharge. 2nd phase: Every six months, over the following three years. Both the HCR-20 and PCL: SV scales and their subscales are significant predictors of readmission, suicide attempts and violent behavior. The GAF scale had a low positive correlation with the HCR-20 scale. A number of other variables such as duration of hospitalization, previous violent acts, diagnosis, gender, marital status, socioeconomic status, number of previous hospitalizations, were statistically related with failure of re-integration in the community. The results provide a strong evidence base that the HCR-20 is a good predictor of violent behavior in psychiatric patients, following their discharge from psychiatric wards in Greece, and hence can be used by clinicians in routine clinical practice.

Key words: Dangerousness, risk assessment, prediction of violent behavior

Introduction

Dangerousness, in its legal or psychiatric sense, has been always considered as a social threat and as such every developed state endeavored to predict and address it.

In the past 30 years, since the Tarasoff's rule in the USA delegated to psychiatrists the duty to protect society from patients who express threats of gross violence, the assessment of dangerousness for future manifestation of violent behavior has become an integral part of routine mental health practice, which has spread worldwide in varying degrees.[1]

Predicting, the future manifestation of violent behavior is a lengthy and difficult task. Numerous research projects have questioned the efficacy of predicting a future behavior that could be described as dangerous. For many years the scientific community has pointed out difficulties regarding the definition of the term dangerousness and the methodology to approach it. Controversial issues on the term could be ascribed to vagueness, lack of credibility and objectivity criteria and, naturally, to subjective factors.[2,3]

Since the '90s, remarkable progress has been made in the endeavor to predict dangerousness, leading to the development of structured assessment tools (such as the Historical Clinical Risk Assessment-20), that allow a more systematic approach to decision making.[4–6]

The risk of exhibiting violent behavior has not been adequately studied in our country. The purpose of the current study was to investigate: (a) the predictive validity of the HCR-20 dangerousness and PCL: SV psychopathy scales for the manifestation of violent behavior and the successful or not outcome of indoor treatment of Greek mental patients, during a follow-up period of 3 years, and (b) the factors related to future manifestation of violent behavior, which consequently contribute to an unsuccessful outcome (re-hospitalization, aggressive behavior, suicide attempts).

Material and method

Sample

The sample of the current study was 295 patients who received treatment in a psychiatric ward of a general or specialized hospital in the period from 1 April 2007 to 31 March 2008 (table 1).

The patients were assessed before being discharged from the hospital and were monitored every six months for the three years (1 May 2008 to 30 April 2011).

The inclusion criteria were:

- Patients, of both genders, diagnosed with severe mental disorders (according to DSM-IV TRTTM), aged 18 to 70 years
- The current hospitalization had to have taken place either voluntarily or involuntarily

Table 1. Hospital admissions during the period April 2007–March 2008.

No.	*Hospital*	*Admissions**	*Number of participants*	
			N	*(%)*
1.	1st Psychiatric Clinic of the University of Athens-Eginition Hospital	627	98	15.6
2.	Psychiatric Hospital of Attiki "Dafni"	490**	73	14.9
2.	Psychiatric Hospital of Corfu	290	37	12.8
3.	Psychiatric Department of General Hospital "Evangelismos"	430	52	12.0
4.	Psychiatric Department of "Mamatsio" General Hospital of Kozani	303	35	11.6
		Total: 2140	Total: 295	

* Source: Patient Administration Department of Hospital

** From three clinics where the current study was conducted and a total of 1898 admissions for the entire hospital

- To have exhibited some form of violent/aggressive behavior self-or other-directed up until the day of the current hospitalization. This behavior could have been exhibited well in the past and was simply recorded in the patient's case history or it could be recent or even the reason that led to the current hospitalization
- To maintain frequent and regular contact with the collateral informant, appointed by themselves (at least once every three days)
- To have enrolled or not in an outpatient program after being discharged.

The exclusion criteria were:

- Interruption of hospital treatment before its conclusion as requested by the patient or the family
- Disciplinary discharge because of the patient's lack of conformity to ward rules
- Changes in the social situation of the patient during the follow-up period (e.g. moving to a different town), thus losing contact with the collateral informant.

Research tools

The Historical Clinical Risk Assessment-20 scale (HCR-20), which includes a total of 20 items (10 items on case history, 5 items on clinical data and 5 items on managing risk), was used to assess dangerousness.[5,6] Coding is based on a three-point scale 0, 1, 2, according to the certainty of the presence or not of each item's risk factor. The final score ranges between 0 and 40 and allows the determination of dangerousness as low, moderate and high.

Psychopathy elements were assessed using the Psychopathy Checklist: Screening Version (PSC: SV),[7] which comprises two domains of six items each. The first domain includes elements which deal with emotional shallowness and the second with behavioral issues. The scoring, here too, is based on a three-point subscale from 0 to 2. The total score ranges between 0 and 24.

Psychosocial functioning was assessed using the Global Assessment of Functioning Scale (GAF).[8,9] Mental health professionals were specifically trained to administer the tests.

The tests were administered a week before patients were discharged through: (a) private interviews with the patients, (b) communication with the collateral informants, (c) discussions with members of the clinical stuff of the ward and (d) the overall study of the patient's file.

After being discharged, patients and their collateral informants were contacted at the end of each six-month period in order to collect information of a possible unsuccessful outcome. Outcomes deemed unsuccessful were the following: (a) immediate return to a psychiatric unit (1–2 days after being discharged), (b) readmission after being discharged and having resided in the community (2–4 months), (c) repeat of violent/aggressive behavior after being discharged, e.g. suicide attempt, (d) manifestation of some form of violent/aggressive behavior for the first time.

Statistical analysis

The mean, standard deviation (SD) and median values and the interquartile range were used to describe the quantitative variables. The absolute (N) and relative (%) frequencies were used for the description of the qualitative variables. For the association between categorical values Pearson's x^2 test was employed and, whenever necessary, Fisher's exact test. The comparison of quantitative variables between two groups was conducted using the non-parametric Mann-Whitney test. In order to control type I errors, the result of multiple comparisons, the Bonferroni correction was used. To compare scores between measurements the non-parametric Wilcoxon signed-rank test was used. In order to study the relationship between two quantitative variables the Spearman correlation coefficient (r) was used. For the purposes of credibility control Cronbach's a was used. Logarithmic stepwise regression was used to determine independent variables, and odds ratios emerged with 95% of their confidence intervals (95% CI). In order to assess the predictive value of the PCL: SV and HCR-20 scales the ROC curve was used, where-from the area under the curve (AUC) was measured with its 95% confidence interval (CI 95%). Moreover, through the ROC curve analysis the TGF optimal cut-off point was established. For this particular point sensitivity (Se) and specificity (Sp) were calculated. The SPSS 17.0 statistical program was used for the analysis.

Results

The final sample of the project included 295 patients, 159 male and 136 female.

Their mean age was 41.4 years and their majority was single (68.5%), 43.7% of the participants had incomes below €1000, and just over half (51.5%) had completed 12 years of education, 71.5% resided in urban areas and 40.3% were unemployed/had no occupation.

Despite their young age, they reported considerable length of illness. Specifically, 83 individuals (28.1%) had been ill for nearly 20 years. The diagnosis assigned to 46.1% of the participants was schizophrenic/psychotic disorder. Thirty three individuals (11.2%) met the criteria for personality disorder per DSM-IV, while 27 individuals (9.1%) exhibited comorbidity, mainly schizophrenia with personality disorder and 20.7% of the participants were using substances and 22.4% alcohol.

Among the participants, 259 individuals (88.1%) had a previous hospitalization, and 159 (53.9%) had at least one experience of mandatory hospitalization. The form of aggressive behavior most often recorded was violence towards others (66.8%), 26.4% of the participants had attempted suicide in the past. Finally, 20.0% had a history of self-harming and 37.3% of other-harming behavior, in their families.

During the first time of assessment (T0), the participants' mean score value in the HCR-20 dangerousness scale was 28.3 points (±4.4), for the PCL: SV scale was 13.4 points (±4.7), while for the GAF scale was 48.4 (±10.3). In the second assessment the respective values were 29.8 (±3.0) for the HCR-20 and 14.4 (±4.3) for the PCL: SV.

Finally, Cronbach's a reliability coefficient was 0.7 for the summary score of the HCR-20, 0.72 for the Historical scale, 0.65 for the Clinical and 0.71 for the Risk Management.

Out of the 295 patients who were being monitored over the three years, 131 individuals (44.4%) were re-hospitalized, 39.0% were hospitalized on up to three occasions and 5.4% on more than four, 48 individuals (16.3%) had an involuntary hospitalization-25 (8.5%) experienced mandatory hospitalization for the first time. Of the re-hospitalized patients, 18% were admitted during the third six-month period. During the three-year follow-up, 39.0% of the participants were hospitalized 1–3 times. Finally, the most common form of aggressive behavior was towards others (82.4%).

The correlation between the HCR-20 and PCL: SV scales, exhibited significantly positive results (table 2).

Table 2. Spearman correlation coefficients between the HCR-20 and PCL: SV.

		PCL: SV (factor 1)	*PCL: SV (factor 2)*	*Total HCR-20*	*Historical scale*	*Clinical scale*	*Risk management scale*
Total PCL: SV	r	0.94	0.83	0.61	0.68	0.20	0.22
	P	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.001**	**<0.001**
PCL: SV (factor 1)	r	1.00	0.60	0.54	0.61	0.10	0.21
	P	.	**<0.001**	**<0.001**	**<0.001**	**0.072**	**<0.001**
PCL: SV (factor 2)	r		1.00	0.57	0.61	0.27	0.20
	P		.	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Total HCR-20	r			1.00	0.86	0.51	0.62
	P			.	**<0.001**	**<0.001**	**<0.001**
Historical scale	r				1.00	0.20	0.26
	P				.	**<0.001**	**<0.001**
Clinical scale	r					1.00	0.34
	P					.	**<0.001**

The significant correlation of the HCR-20 subscales is strong evidence of its structural validity. The HCR-20 and GAF scales had low positive correlation. The ROC curve analysis also revealed statistically significant results regarding the predictive validity of the HCR-20 and PCL: SV scales (table 3).

Table 3. ROC Analysis for the PCL: SV and HCR-20 scales and their subscales

	*AUC (95% CI)**	*p*	*Optimal cut-off*	*Sensitivity (%)*	*Specificity (%)*
Re-hospitalization					
Total PCL: SV	0.57 (0.51–0.64)	**0.033**	14.00	57.25	56.10
PCL: SV (factor 1)	0.57 (0.51–0.64)	**0.037**	8.00	45.04	65.24
PCL: SV (factor 2)	0.56 (0.5–0.63)	0.064			
Total HCR-20	0.63 (0.57–0.69)	**<0.001**	29.00	57.25	64.02
Historical scale	0.59 (0.53–0.65)	**0.008**	15.00	35.88	75.00
Clinical scale	0.60 (0.54–0.66)	**0.003**	8.00	59.54	53.05
Risk management scale	0.59 (0.53–0.66)	**0.006**	9.00	44.27	69.51
Suicide attempts by the time of the initial assessment					
Total PCL: SV	0.62 (0.55–0.7)	**0.001**	16.00	46.15	69.59
PCL: SV (factor 1)	0.61 (0.53–0.69)	**0.003**	9.00	44.87	74.19
PCL: SV (factor 2)	0.60 (0.53–0.68)	**0.006**	8.00	43.59	71.43
Total HCR-20	0.78 (0.73–0.83)	**<0.001**	30.00	62.82	73.73
Historical scale	0.77 (0.71–0.82)	**<0.001**	14.00	73.08	71.43
Clinical scale	0.55 (0.48–0.62)	0.203			
Risk management scale	0.65 (0.58–0.72)	**<0.001**	9.00	50.00	68.20
Present manifestation of violent behavior					
Total PCL: SV	0.66 (0.59–0.72)	**<0.001**	13.00	63.78	62.73
PCL: SV (factor 1)	0.66 (0.6–0.72)	**<0.001**	8.00	47.03	73.64
PCL: SV (factor 2)	0.61 (0.54–0.67)	**0.002**	8.00	36.76	74.55
Total HCR-20	0.68 (0.62–0.74)	**<0.001**	30.00	44.86	79.09
Historical scale	0.65 (0.58–0.71)	**<0.001**	15.00	35.68	80.00
Clinical scale	0.60 (0.53–0.66)	**0.006**	8.00	57.84	56.36
Risk management scale	0.63 (0.57–0.7)	**<0.001**	9.00	43.24	74.55
Suicide attempts during follow-up**					
Total PCL: SV	0.53 (0.37–0.69)	0.670			
PCL: SV (factor 1)	0.56 (0.41–0.72)	0.420			
PCL: SV (factor 2)	0.54 (0.4–0.68)	0.603			
Total HCR-20	0.68 (0.56–0.8)	**0.022**	29.00	60.00	67.82
Historical scale	0.57 (0.43–0.7)	0.380			
Clinical scale	0.62 (0.51–0.74)	0.107			
Risk management scale	0.70 (0.57–0.84)	**0.009**	10.00	46.67	84.65

* Area under the curve (95% CI)
** No past occurrences

Progressive increase of the HCR-20 scale score was found to significantly increase the probability of readmission to the psychiatric unit of a hospital (99.1%), the probability of successful suicide (70%) and aggressive behavior (89%), (tables 4–6).

Single patients were found to have 64% greater probability of being re-hospitalized (table 5). Indeed, those who were single, divorced or widowed had 54% greater probability of successful suicide (table 4). Female patients had more attempts compared to male patients and thus had greater rates of readmission. Additionally, they had 87% greater probability of exhibiting aggressive behavior during hospitalization in comparison to the male patients (table 6).

History of prior manifestation of violent behavior and a history of other-directed violence within the family were strong predictive factors of the probability of re-hospitalization by 44% and 63% respectively. The number of prior hospitalizations was an additional predictive factor (table 5).

Of the diagnostic categories, the schizophrenia/psychotic disorder displayed the lowest rate (68%) of any form of suicide attempt. Patients with depression and personality disorder were found to have made the most attempts (table 7).

As hospitalization got longer, the probability of a successful attempt to suicide or the manifestation of violent behavior diminished, and consequently the possibility of readmission in the second assessment (table 6).

Patients who had been ill for more than 9 years were found to be 56% less likely to attempt suicide in the future, while those who had been hospitalized for 3 or more times had the highest readmission rates (54.6%), (tables 7, 8).

Individuals of higher socioeconomic status (74.7%) displayed a greater propensity for exhibiting aggressive behavior or being re-hospitalized in comparison to individuals of lower socioeconomic status (table 9).

Finally, it was found that the probability of hospitalization decreased as the Global Assessment of Functioning scale score increased (table 5).

Discussion

The evaluation of dangerousness of psychiatric patients depends mainly on the features of the group of patients under study. The application of valid psychometric instruments ensure that dangerousness can be approached with significant accuracy.

The current study, the first in Greece, tests the validity of the HCR-20 scale as a whole and its subscales. We have studied, for patients who were followed-up for three years, their post-discharge progress and the possibility of exhibiting violent behavior (e.g. successful suicide, aggressive behavior).

The positive correlation between the HCR-20 and PCL: SV scales, and their ability to predict the future manifestation of violent behavior is confirmed by numerous research studies, which show the HCR-20′s scores to be a significant predictive factor of readmission and self/collateral reporting of violent behavior.[10–13] Moreover, some researchers admit the predictive superiority of the HCR-20 in comparison to the PCL: SV.[14]

The overall score of the HCR-20 and its progressive increase proved to be the best predictive factor and was followed by the H (Historical) and R (Risk Management) subscales. The majority of studies report the H subscale to be particularly useful for predicting any form of violent incidents during hospitalization and mostly for predicting verbal violence.[15]

Regarding the C (clinical) and R (risk management) subscales, we have noted that their scores decrease as the patients stay longer in the hospital. For the majority of patients, longer hospitalizations have probably a reinforcing effect on the observance of a regular treatment and on the remission of symptoms. Longer contact with the patients probably allows the stuff to adopt more elaborated strategies regarding dangerousness, i.e. medical treatment of the acute phase of a mental illness and elaboration of strategies for social re-integration. Indeed, the stuff can focus on specific behavioral treatments, control

Table 4. Multivariate logarithmic regression in relation to successful suicide.

		OR (95% CI)	*p*
Total HCR-20		1.09 (1.02–1.17)	**0.009**
GAF		0.96 (0.93–0.98)	**0.002**
		1.00*	
Marital status	Married-Divorced-Widowed-Single	3.64 (1.98–6.69)	**<0.001**
	0	1.00	
Number of aggressive acts (at time T0)	1–3	2.38 (1.3–4.36)	**0.005**
	>3	6.06 (2.77–13.24)	**<0.001**
History other-directed behavior within the family	No	1.00	
	Yes	2.63 (1.51–4.59)	**0.001**

*Indicates control category

Table 5. Multivariate logarithmic regression in relation to the possibility of re-hospitalization.

		OR (95% CI)	*p*
Total HCR-20 (during initial assessment T0)		1.30 (1.19–1.41)	**<0.001**
Marital status	Married-Divorced-Widowed-Single		
		1.00*	
		2.54 (1.29–5.01)	**0.007**
Duration of Illness (years)	<3	1.00	
	4–9	0.59 (0.27–1.28)	0.181
	>9	0.44 (0.2–0.96)	0.040
Schizophrenia/Psychotic disorder	No	1.00	
	Yes	0.32 (0.17–0.61)	**<0.001**

* Indicates control category

Table 6. Multivariate logarithmic regression in relation to the manifestation of aggressive behavior.

		OR (95% CI)	*p*
Total PCL: SV (during initial assessment T0)		1.09 (1.02–1.18)	**0.017**
Total HCR-20 (during initial assessment T0)		1.11 (1.03–1.2)	**0.007**
Gender	Male		
	Female	1.87 (1.11–3.16)	**0.019**
Duration of Current Hospitalization (days)	20–40		
	41–80	0.84 (0.44–1.61)	0.604
	>80	0.39 (0.2–0.76)	**0.006**

* Indicates control category

Table 7. Correlation of participants to manifestation of self-destruction attempts

		Suicide attempt manifestation (time T0)				
		No		*Yes*		*p Pearson's x^2 test*
Diagnosis		*N*	*(%)*	*N*	*(%)*	
Schizophrenia/Psychotic disorder	No	84	59.6	57	40.4	<0.001
	Yes	133	86.4	21	13.6	
Substance-related disorders	No	215	74.1	75	25.9	0.117*
	Yes	2	40.0	3	60.0	
Organic mental disorder	No	211	73.0	78	27.0	0.346*
	Yes	6	100.0	0	0.0	
Bipolar disorder	No	188	72.6	71	27.4	0.310
	Yes	29	80.6	7	19.4	
Depression	No	192	77.7	55	22.3	**<0.001**
	Yes	25	52.1	23	47.9	
Personality disorder	No	196	79.4	51	20.6	**<0.001**
	Yes	21	43.8	27	56.3	
Mental retardation	No	213	73.4	77	26.6	1.000*
	Yes	4	80.0	1	20.0	
Obsessive compulsive disorder	No	207	72.9	77	27.1	0.299*
	Yes	10	90.9	1	9.1	
Comorbidity	No	213	73.7	76	26.3	0.657*
	Yes	4	66.7	2	33.3	
Type of schizophrenia/Psychotic disorder	Undifferentiated	85	60.7	55	39.3	**<0.001***
	Paranoid	10	100.0	0	0.0	
	Residual	41	80.4	10	19.6	
	Schizoaffective disorder	14	82.4	3	17.6	
	Delusional disorder	8	61.5	5	38.5	
	Psychotic disorder NOS	53	91.4	5	8.6	
	Schizophreniform disorder	2	100.0	0	0.0	
	Brief psychotic disorder	4	100.0	0	0.0	
Duration of illness (years)	<3	45	68.2	21	31.8	**0.045**
	4-9	70	68.0	33	32.0	
	>9	102	81.0	24	19.0	
Marital status	Single	145	71.7	57	28.2	**0.017**
	Married/Divorced/ Widowed	72	77.4	21	22.6	
Gender	Male	128	80.5	31	19.5	**0.003**
	Female	89	65.4	47	34.6	

*Fisher's exact test

of impulses and emotions, hence increase insight and the probability of assent.[16]

Additionally, the results of the C and R subscales may also be used to determine specific intervention goals and to measure therapeutic progress, since they may be repeated.[17] The assessment of the clinical (C) and risk management (R) items contributes to the evaluation of the impact of the employed interventions, of the progress made and of any changes made to the therapeutic goals.[18]

Table 8. Correlation of participants to re-hospitalization

		Re-hospitalization				*p Pearson's x^2 test*
		No		*Yes*		
		N	*(%)*	*N*	*(%)*	
Gender	Male	100	62.9	59	37.1	**0.006**
	Female	64	47.1	72	52.9	
Number of hospitalizations	0	24	68.6	11	31.4	**0.016**
	1–3	91	60.3	60	39.7	
	>3	49	45.4	59	54.6	
Marital status	Single	129	63.9	73	36.1	**<0.001**
	Married	45	77.6	13	22.4	
	Divorced/Widowed	26	74.3	9	25.7	
History of self-harming behavior in the family	No	139	58.9	97	41.1	**0.022**
	Yes	25	42.4	34	57.6	
History of other-harming behavior in the family	No	122	65.9	63	34.1	**<0.001**
	Yes	42	38.2	68	61.8	
Number of aggressive acts (prior to T0)	0	89	74.2	31	25.8	**<0.001**
	1–3	60	53.1	53	46.9	
	>3	15	24.2	47	75.8	

Table 9. Correlation of participants to manifestation of aggressive behavior

		Manifestation of aggressive behavior				*p Pearson's x^2 test*
		No		*Yes*		
Diagnosis		*N*	*(%)*	*N*	*(%)*	
Schizophrenia/Psychotic disorder	No	41	29.1	100	70.9	**0.005**
	Yes	69	44.8	85	55.2	
Personality disorder	No	102	41.3	145	58.7	**0.001**
	Yes	21	43.8	27	56.3	
Duration of current hospitalization (days)	20–40	26	30.6	59	69.4	**0.013**
	41–80	36	32.1	76	67.9	
	>80	25	25.5	73	74.5	
Socioeconomic status	Higher	11	25.6	32	74.4	**0.006**
	Middle	38	30.9	85	69.1	
	Lower	61	47.3	68	52.7	
Gender	Male	68	42.8	91	57.2	**0.035**
	Female	42	30.9	94	69.1	

High scores in the HCR-20 and PCL: SV scales were recorded for those of our patients who had attempted suicide and/or had exhibited aggressive behavior by the first assessment (T0). Cut-off score of 29 in the HCR-20 scale –as established in our study– should be taken into consideration by the clinician. However, some researchers[19] report a cut-off point of 27 as useful.

The low positive correlation between the HCR-20 and GAF scales could be explained within the context of a possible suicide attempt and in relation to awareness of the illness and its consequences. Literature observes that clinical improvement is not the juncture that reduces suicide risk. The improvement of mental symptoms may lead to awareness of the illness and a consequent risk of suicide, as the result of painful insight, sometimes for the patient's lifetime.[20]

In regard to the marital status of our patients, those who were single, divorced or widowed had higher rates of exhibiting violent behavior; a fact which confirms the prevalent perception that marriage or a stable relationship acts as a deterrent to violent behavior.[5,21–26]

The predominance of female patients, in our sample, regarding suicide attempts and the manifestation of aggressive behavior confirms other researchers who also report similar scores.[27–29] However, some report that the rate of violence between mental health patients are probably similar for both genders.[30–32] Yet others report that mental illness reduces the gender gap in the manifestation of violence, especially during hospitalization,[33–35] a fact ascertained in our study as well.

Literature reports that certain diagnoses of Axis I and II are related to the risk of violence and successful suicide, as well as specific symptom clusters. For Axis I particularly, major depression and schizophrenia hold a primary role especially when they co-occur with paranoia and compelling hallucinations and disorders due to the use of substances. In Axis II, greater interest lies in antisocial and borderline personality disorders.[36] The risk of suicide has been underlined both during the early onset of depression, as well as for patients experiencing their first psychotic episode. Particularly in schizophrenia, suicide is the primary cause of premature death and remains so for the patient's entire lifetime. In the current study, patients with delusional disorder or undifferentiated type of schizophrenia, and patients with depression and personality disorders had higher occurrences of suicide attempts.

Additionally, the co-occurrence of multiple psychiatric disorders or comorbidity is related to increased risk.[37] A small rate in our study fell under this group (9.1%) but was not considered representative enough to reach definitive conclusions.

The factors implicated in increased risk of exhibiting future violent behavior include history of prior violence, ease of access to dangerous objects or substances, personality disorder, young age, low socioeconomic status etc. In the current study, only age was not found to have a significant role; however, it was observed, for the first time, that individuals of higher socioeconomic status exhibited high rates of aggressive behavior during their hospitalization.

In conclusion, we can say that the undoubtfull prediction of a violent act remains very difficult. The HCR-20 scale provides data which can aid clinical judgment, limits subjective perception and contributes to the management of future risk.

We can consider as a limitation of our study that relied on the diagnoses supplied by the medical stuff, without resorting –in the most cases– to the use of diagnostic tools. Possibly, the use of diagnostic tools would alter the results, especially in axes I and II. Also, the absence of use of diagnostic scales, such as Positive and Negative Syndrome Scale (PANSS), which would provide a more comprehensive evaluation of clinical condition of the patients.

Suggestions for future research include in-depth study of how the items in each subscale of the HCR-20 are related within the context of risk, the use of the HCR-20 in different patient groups and the consequent re-evaluation of our conclusions, in different clinical contexts.

Εκτίμηση της επικινδυνότητας Ελλήνων ψυχικά ασθενών

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Η πιθανότητα εκδήλωσης βίαιης συμπεριφοράς από ψυχικά ασθενείς αποτελεί διαρκές αντικείμενο προβληματισμού. Ένα άλλο ζήτημα που απασχόλησε ιδιαίτερα τους ειδικούς, ήταν και ο προσδιορισμός της έννοιας της επικινδυνότητας. Τα σημαντικότερα σημεία σύγκλισης γύρω από την έννοια της επικινδυνότητας περιλαμβάνουν μεταξύ άλλων τα εξής: (α) Παρατηρείται διεθνώς, σημαντική ανομοιογένεια και πολυμορφία στους ορισμούς και τις χρήσεις της έννοιας που διαθέτει σημαντική ευρύτητα. (β) Αναφέρεται στη δυνατότητα έκφρασης στο μέλλον βίαιης-επικίνδυνης συμπεριφοράς. (γ) Οι εμπλεκόμενοι επιστημονικοί κλάδοι (νομικοί, επαγγελματίες ψυχικής υγείας κ.ά.) της προσδίδουν διαφορετική διάσταση και την προσεγγίζουν με διαφορετικές μεθόδους. (δ) Καθίσταται ελαστική, αόριστη με σοβαρά ζητήματα που αφορούν στην εκτίμησή της, λόγω ασαφειών, έλλειψης επαρκών κριτηρίων αξιολόγησης και παρουσίας υποκειμενικών παραγόντων. Οι ακριβείς εκτιμήσεις της βίαιης συμπεριφοράς είναι ιδιαίτερα σημαντικές για τους ψυχιατρικούς ασθενείς με ιστορικό βίας, καθώς στην απόφαση για το εξιτήριό τους, βαραίνει κυρίως η πιθανότητα πρόκλησης βλάβης τόσο στους ίδιους όσο και σε άλλους. Η παρούσα μελέτη είχε ως σκοπό να εκτιμήσει την πιθανότητα σε διακόσιους ενενήντα πέντε (295) ασθενείς που νοσηλεύτηκαν σε κάποιο ψυχιατρικό τμήμα γενικού ή ειδικού νοσοκομείου να εκδηλώσουν βίαιη συμπεριφορά. Ειδικότερα εξετάστηκε η προβλεπτική αξιοπιστία και εγκυρότητα της κλίμακας HCR-20 σε σχέση με την πορεία των ασθενών μετά την έκδοση εξιτηρίου. Η αξιολόγηση έγινε με τη συμπλήρωση των κλιμάκων HCR-20, PCL:SV και GAF. Χρησιμοποιήθηκαν οι ατομικοί φάκελοι, συνεντεύξεις και πληροφορίες από τους έμμεσους πληροφοριοδότες. Οι ασθενείς αυτοί παρακολουθήθηκαν για τη μελλοντική εκδήλωση βίαιης συμπεριφοράς (αποτυχημένη έκβαση) για τα επόμενα τρία χρόνια μετά το εξιτήριο. Ως αποτυχημένη έκβαση θεωρήθηκε η επανεισαγωγή λόγω βίαιης συμπεριφοράς, ή επίτευξης απόπειρας αυτοκτονίας ή εκδήλωσης κάποιας μορφής επιθετικής συμπεριφοράς. Η μελέτη πραγματοποιήθηκε σε δύο φάσεις: 1η φάση: Μία εβδομάδα πριν το εξιτήριο έγινε η λήψη των δημογραφικών, ατομικών και οικογενειακών στοιχείων και δόθηκαν οι κλίμακες HCR-20, PCL:SV και GAF. 2η φάση: Στο τέλος κάθε εξαμήνου, καθόλη τη διάρκεια των τριών χρόνων, γινόταν λήψη κλινικών στοιχείων και επίδοση των προαναφερόμενων κλιμάκων. Πιθανή επόμενη νοσηλεία (αποτυχημένη έκβαση) κατά τη διάρκεια της μετα-παρακολούθησης αποτέλεσε τον δεύτερο χρόνο της έρευνας. Τόσο η HCR-20 όσο και η PCL:SV και οι υποκλίμακές τους, αποδείχτηκαν ισχυροί προβλεπτικοί παράγοντες αναφορικά με τις πιθανές επανεισαγωγές, την επιτυχή απόπειρα αυτοκτονίας και εκδήλωση επιθετικής συμπεριφοράς. Μια σειρά άλλων παραγόντων όπως η οικογενειακή κατάσταση, το φύλο, το ιστορικό προηγούμενης εκδήλωσης βίαιης συμπεριφοράς, η διάγνωση, ο αριθμός προηγούμενων νοσηλειών, το ιστορικό αυτο- και ετεροκαταστροφικής συμπεριφοράς στην οικογένεια, ο χρόνος νοσηλείας, η κοινωνικο-οικονομική κατάσταση βρέθηκαν να σχετίζονται θετικά με τον κίνδυνο εκδήλωσης βίαιης συμπεριφοράς. Τα αποτελέσματα της έρευνας συνάδουν με αυτά πολλών άλλων ερευνητικών εργασιών και συνηγορούν πως η κλίμακα HCR-20 μπορεί τελικά να χρησιμοποιηθεί και στη χώρα μας, ως ένα αξιόπιστο εργαλείο αξιολόγησης του κινδύνου για ψυχικά ασθενείς που νοσηλεύονται ή διαβιούν στην κοινότητα.

Λέξεις ευρετηρίου: Επικινδυνότητα, εκτίμηση κινδύνου, πρόβλεψη βίαιης συμπεριφοράς

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