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Treatment Decision-Making Capacity in Forensic vs Non-forensic Psychiatric Patients: A European Comparison

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Background: **Consent to treatment is a cornerstone of medical ethics and law. Nevertheless, very little empirical evidence is available to inform clinicians and policymakers regarding the capacities of forensic patients with schizophrenia spectrum disorders (SSDs) to make decisions about their treatment, with the risk of clinical and legal inertia, silent coercion, stigmatization, or ill-conceived reforms.** ***Study Design:*** **In this multinational study, we assessed and compared with treatment-related decisional capacities in forensic and non-forensic patients with SSD. 160 forensic and 139 non-forensic patients were used in Austria, Germany, Italy, Poland, and England. Their capacity to consent to treatment was assessed by means of the MacArthur Competence Assessment Tool for Treatment (MacCAT-T). Multiple generalized linear regression models were used to identify the socio-demographic and clinical variables associated with MacCAT-T scores.** ***Study Results:*** **In total, 55 forensic (34.4%) and 58 non-forensic patients (41.7%) showed high treatment-related decisional capacity, defined as scoring ≥75% of the maximum scores for the understanding, appreciation and reasoning, and 2 for expressing a choice. Forensic patients showed differences in their capacity to consent to treatment across countries. Of all socio-demographic and clinical variables, only "social support" was directly relevant to policy.** ***Conclusions:*** **Forensic patients have treatment-related decisional capacities comparable with their non-forensic counterparts. Social contacts might provide a substantial contribution towards enhancing the decisional autonomy of both forensic and non-forensic patients, hence improving the overall quality and legitimacy of mental health care.**

Key words: forensic psychiatry/capacity to consent to treatment/MacArthur Competence Assessment Tool for Treatment/schizophrenia spectrum disorders

Introduction

The capacity to consent to treatment is a crucial element of protecting patients' autonomy in medicine. The last 40 years have witnessed a steady expansion of the number of studies on the capacity to consent in patients with mental disorders, as evidenced by the appearance of systematic reviews and meta-analyses.[1–3] This growth has been paralleled by intensive methodological refinement: A panoply of standardized tools has been developed to assess capacity,[4–6] with ever-closer attention to the specificity and complexity of individual cases. On the one hand, this has led to finer discrimination in performance among diagnostic categories (eg, schizophrenia,

depression, dementia, etc.).[7,8] On the other hand, it underscores the need for more detailed consideration of patient-specific contexts (eg, long- vs short-term care, voluntary vs involuntary commitment), reflecting the situational nature of the decision-making process.[9]

In forensic psychiatry, the issue of capacity to consent to treatment is especially important, given the dual role of treatment in fostering individual health and reducing the risk of re-offending.[10] What is at stake in forensic patients' decisions is not simply the improvement of their mental health, but also the duration of their ongoing confinement, or the conditions of their eventual discharge. In most European legal systems, in fact, decisions about release rest on evaluations of the subject's risk of dangerousness to self or others,[11] in which their treatment status may play a substantial role. Given these concerns, the scant attention devoted to the decisional capacities of forensic patients is striking. The scant number of extant studies are based on relatively small samples, the absence of comparison with non-forensic patients, and samples from a single country. Four focused on Ireland,[12–15] one on New Zealand,[16] one on Canada,[17] and one on the United Kingdom.[18] With the exception of the latter, which examined the decisional capacity of 155 offenders with personality disorders, all focused on forensic patients with psychosis, with relatively small samples (ranging from 37 to 109 participants). None included non-forensic comparison groups.

There are many possible explanations for the scarcity of studies in forensic settings, starting from a devaluation of the issue due to implicit conflation of two separate considerations: The adjudicated lack of or diminution in criminal responsibility at the time of the legally relevant act (which in most jurisdictions justifies hospitalization) then resulting in the assumption of incapacity to consent to treatment.[19–21] Additional reasons may be the relatively small number of forensic patients in most systems, the dispersion of patients among different treatment units, difficulties in obtaining permission to conduct studies in forensic facilities, and the challenges of making comparisons between forensic and general psychiatric patients, given differences in such factors as comorbidities[22] and institutional settings.[23]

Consequently, little empirical evidence is available to inform discussion and policymaking regarding the capacities of forensic patients to make treatment decisions. Legislative reforms in this domain risk being considered and implemented without a clear idea of their possible consequences.[18,10] However, equally great are the risks of inertia, including the perpetuation of an anachronistic and unethical status-based approach to treatment decisional capacity,[24] therapeutic parentalism, coercion, and further stigmatization of these patients.

Aims of the Study

The present study was conceived to advance policymaking on a firmer empirical basis. It is part of the multicenter "*European Study on Risk Factors for Violence in Mental Disorder and Forensic Care*" (EU-VIORMED).[25] Key features of EU-VIORMED are its international scope and the inclusion of a comparison (ie, non-forensic) population matching the target cohort in diagnosis and socio-demographic profile. In this project, we focused on patients with schizophrenia spectrum disorders (SSDs)[26] for two main reasons: (1) patients with a primary diagnosis of personality disorders and/or alcohol/substance abuse tend to follow very different treatment, legal and forensic pathways in different European countries; (2) past evidence shows that the vast majority of patients cared for by forensic services have SSDs. The cross-national design of EU-VIORMED allowed examination of country-specific institutional determinants of decisional capacities and other characteristics. In short, we seek to reassess the "forensic patient" as a *psychiatric* patient (as such, comparable regardless of the institutional situation) as well as a *forensic* subject (as such, at least in part defined by a complex set of local institutional/cultural factors).

The aims of this study were: (1) to compare decisional capacities, measured by MacArthur Competence Assessment Tool for Treatment (MacCAT-T), between forensic and non-forensic patients; and (2) to identify the socio-demographic and clinical characteristics associated with MacCAT-T scores.

Methods

EU-VIORMED is a European multicentre observational study. The fieldwork was conducted in 5 European countries: Austria, Germany, Italy, Poland, and England. All participants, were between 18 and 65 years of age with a primary diagnosis SSD. Forensic patients had a primary diagnosis of an SSD and a history of significant interpersonal violence. They were used from multiple forensic institutions in each country (see supplementary table S1). Significant interpersonal violence was defined as having committed a homicide, attempted homicide, or other assault that caused serious physical injury to another person. Non-forensic patients were gender-matched and age-matched patients with SSDs who had never committed such an act of violence and were used from general psychiatric services. DSM-5 diagnoses were based on clinicians' evaluations extracted from the medical records. For more details about the study design see de Girolamo et al.[27]

All participants provided written informed consent before entering the study, after receiving a full verbal and written description of the study's aims and methods. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as

revised in 2008. All procedures involving human subjects/patients were approved by relevant local or national ethical committees of each country. The first approval was obtained by the St. John of God Ethical Committee (coordinating center) on July 20, 2018 (permission n. 74–2018); subsequent permissions have been obtained in each of the other recruiting countries according to national and local policies (for more details see supplementary file, Ethical Permissions).

All details about socio-demographic, clinical, functional, and violence assessment can be found elsewhere.[27]

Assessment of Decision-Making Capacity for Treatment

Decision-making capacity related to each patients' current treatment was assessed by means of the MacArthur Competence Assessment Tool for Treatment (MacCAT-T),[28,29] the most commonly used, standardized method for the assessment of capacity for treatment decisions, also used in all mentioned previous studies on the decisional capacity of forensic patients.[30]

The MacCAT-T is a semi-structured interview, tailored to the patient's specific disorder and treatment decision. It tests four domains:

1. Understanding. This domain pertains to the patient's acquisition and retention of information on the diagnosis and the therapeutic options.
2. Appreciation. This subscale assesses the patient's ability to acknowledge the diagnosis and the probably effects of treatment; not acknowledging the diagnosis and the probably effects of treatment is counted as a failure of appreciation only if the patient's explanations are based on illogical or delusional premises.
3. Reasoning. This category measures the patient's capacity to weigh the risks and benefits of treatment and assesses the logical consistency of the patient's choice. The patient is asked to evaluate the potential consequences of different treatment options and their probably impact on his/her everyday life, to compare them, and to provide a reason for the therapeutic choice made.
4. Expressing a choice. The subject is asked to select one treatment option, including the option of no treatment, among those offered.

Each domain is scored individually (understanding: 0–6; appreciation: 0–4; reasoning: 0–8; expressing a choice: 0–2), and higher scores indicate greater capacity. The tool was not designed for a binary (pass/fail) capacity assessment, and it does not yield total scores. Nevertheless, there is a growing tendency for studies to employ MacCAT-T generated data as a basis for dichotomous categorization of decisional capacity. In this connection, various cutoffs have been proposed.[2,31] Although cutoff values should be considered with caution,[32] to allow comparison with Mandarelli et al's study, we set the cutoff at ≥ 75% (ie, at the fourth quartile), by setting the cutoff at ≥ 75% on all the first three MacCAT-T subscales (ie, understanding ≥ 4.5, appreciating ≥ 3, reasoning ≥6), plus the maximum score at expressing a choice (=2).

All researchers were trained in the MCAT during a training course in Vienna, based on the "MacArthur Competence Assessment Tool for Treatment (MacCAT-T)" Manual. As spelled out in the manual, the structured interview can be administered by clinicians or other health professionals. In the EU-VIORMED project, every research assistant filled in the MacCAT-t record form with the patients' treating clinicians in order to register the diagnosis, the clinical symptoms, the pharmacological treatment prescribed, and the potential alternative treatment to be suggested that to the patient during the interview. After this, the research assistant administered the clinical interview to the patients, recorded him/her answers and rated the interview.

Statistical Analyses

Continuous variables were compared between forensic and non-forensic patients using t-tests or Mann-Whitney tests, as appropriate. Categorical variables were compared between the two groups using χ^2 test or Fisher's exact test. Because of the observational study design and the enforced modifications of the recruitment strategy during the pandemic, the two groups were no longer matched and might differ on demographic and clinical characteristics. Therefore, comparison of MacCAT-T scores between the two groups took into account the possible effect of confounders. To control for confounding, multiple generalized linear (GLM) regression models were used to identify patients' characteristics associated with the MacCAT-T scores. The distribution and link function of the GLM were chosen based on the Bayesian information criterion (BIC). In particular, the normal distribution and identity link function (linear model) was selected because it provided the lowest BIC for each domain scores.

Variables differing between the two groups and associated with MacCAT-T scores in the overall sample were considered as confounders and were used to adjust the comparisons of MacCAT-T scores between the two groups. Multiple GLMs were also used to identify the socio-demographic and clinical variables associated with MacCAT-T scores in forensic and non-forensic patients. We chose not to use MacCAT-T scores as dichotomous variables in regression models because, as argued by Altman and Royston,[33] dichotomization underestimates the extent of variation in outcomes between groups and leads to a reduction in the study power. In addition, when regression is used to adjust for the effect of confounders, dichotomization runs the risk that a substantial part of the confounding remains.

All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS), version 25.0. The level of significance was set to $P < .05$.

Results

Participants

Among the 398 participants, 339 (85.2%) agreed to participate in the study; 299/339 (88.2%) provided complete MacCAT-T data and were included in the analyses. They comprised 160 forensic and 139 non-forensic patients. The number of participants and the comparison-to-cases ratio varied among the five countries (supplementary files, Ethical permissions).

The majority of participants were males ($n = 256$; 85.6%). Forensic patients and comparisons did not differ in age (χ^2 test = 5.6, $P = .133$), overall ethnicity, or marital and occupational status (table 1). Compared to their non-forensic counterparts, forensic patients had fewer years of education ($M = 11.5$ vs $M = 13.0$; t-test = 3.8, $P < .001$), spent more time engaged in structured activities (more than 6 hours per day; χ^2 test = 15.9, $P < .001$), had fewer personal contacts with friends (12.5% vs. 45.7%; χ^2 test = 40.5, $P < .001$) and more personal contacts with other patients (8.1% vs 2.2%; χ^2 test = 5.2, $P = .023$), and were more probably to have children (χ^2 test = 4.3, $P = .038$). As for the baseline clinical characteristics, there was a significant difference in the type of SSD diagnosis between forensic and non-forensic patients (χ^2 test = 24.7, $P < .001$): forensic patients were more probably to have a delusional disorder (5% vs 0.7% for the non-forensic group) and less probably to have a schizoaffective disorder (6.9% vs 24.5% for comparisons). Comorbidity with personality disorders was more common among the forensic group (28.4% vs 9.6% for comparisons; χ^2 test = 16.1, $P < .001$). Forensic patients were more probably to have been beaten, kicked, or punched by someone (70.6% vs 52.5% for comparisons; χ^2 test = 8.3, $P = .004$). On average, non-forensic patients had their first contact with a Department of Mental Health at an earlier age ($M = 22.5$ years vs $M = 24.9$ years; t-test = −2.3, $P = .022$).

Table 1. Socio-demographic and Clinical Characteristics of Forensic and Non-forensic Patients

	Forensic Patients	Non-forensic Patients		
	$N = 160$	$N = 139$		
	N (%)	*N* (%)	Test	*P*
Sex			2.74	.098[a]
Male	142 (88.8)	114 (82)		
Female	18 (11.2)	25 (18)		
Age			5.60	.133
18–29 years	36 (22.5)	41 (29.5)		
30–41 years	72 (45.0)	46 (33.1)		
42–53 years	28 (17.5)	33 (23.7)		
54–65 years	24 (15.0)	19 (13.7)		
Country			**11.78**	**.019**[a]
Austria	49 (30.6)	47 (33.8)		
Germany	11 (6.9)	22 (15.8)		
Italy	29 (18.1)	25 (18.0)		
Poland	47 (29.4)	37 (26.6)		
England	24 (15.0)	8 (5.8)		
Ethnicity			2.14	.328[a]
White	144 (90)	130 (93.5)		
Middle Eastern or Asian	8 (5.0)	7 (5.0)		
Black/African/Central or South American	7 (4.4)	2 (1.5)		
Don't know/won't say	1 (0.6)	0 (0)		
Marital status			1.57	.457[a]
Married or cohabiting	7 (4.4)	10 (7.2)		
Single	131 (81.9)	114 (82.0)		
Divorced or widowed	22 (13.7)	15 (10.8)		
Missing				
Social support (multiple choice)				
None	28 (17.5)	15 (10.9)	2.64	.104[a]
Family	123 (76.9)	106 (76.8)	0.01	.990[a]
Friends	20 (12.5)	63 (45.7)	**40.53**	**<.001**[a]

Table 1. Continued

	Forensic Patients	Non-forensic Patients		
	N = 160	*N* = 139		
	N (%)	*N* (%)	Test	*P*
Other patients	13 (8.)	3 (2.2)	**5.17**	**.023**[a]
Children			**4.29**	**.038**[a]
Yes	41 (25.6)	22 (15.8)		
No	119 (74.4)	117 (84.2)		
Education years, mean (SD)	11.5 (3.1)	13.0 (3.5)	**3.81**	**<.001**[b]
Highest occupational status			3.42	.332[a]
Never worked/student/homemaker	22 (13.8)	22 (15.9)		
Unskilled worker	85 (53.1)	59 (42.8)		
Skilled worker	44 (27.5)	49 (35.5)		
Professional	9 (5.9)	8 (5.8)		
Missing	0	1 (0.7)		
Time not engaged in nontherapeutic activities			**15.87**	**<.001**[a]
Less than 3 hours a day	30 (18.7)	49 (35.3)		
Up to 6 hours a day	51 (31.9)	51 (36.7)		
More than 6 hours a day	77 (48.2)	39 (28.1)		
Missing	2 (1.2)	0		
Illness duration (years), mean (SD)[a]	12.5 (9.2)	13.9 (10.4)		.254[b]
Age of first contact with DMHs (years), mean (SD)[a]	24.9 (9.3)	22.5 (8.2)	**-2.30**	**.022**[b]
Type of SSD diagnosis			**24.70**	**<.001**[a]
Schizophrenia	129 (80.6)	101 (72.7)		Schizoaffective: non-forensic > forensic patients.
Schizoaffective disorders	**11 (6.9)**	**34 (24.5)**		
Delusional disorder	**8 (5)**	**1 (0.7)**		Delusional: forensic > non-forensic.
Brief psychotic disorder	0 (0)	0 (0)		
Schizophreniform disorder	5 (3.1)	1 (0.7)		
Drug-induced psychosis	7 (4.4)	2 (1.4)		
Comorbidity with Personality disorders			**16.08**	**<.001**[a]
No	111 (71.6)	122 (90.4)		
Yes	44 (28.4)	13 (9.6)		
Missing	5 (3.1)	4 (2.9)		
Type of comorbid personality disorders			**15.10**	**.001**[c]
Borderline personality disorder	8 (18.2)	2 (15.4)		
Antisocial personality disorder	22 (50)	0 (0)		
Other	11 (25)	7 (15.9)		
Missing	3 (6.8)	4 (30.8)		
Lifetime SUD (yes)	123 (76.9)	106 (76.3)	0.01	.911[a]
Attempted suicide/self-harm behaviors (yes)	77 (48.1)	54 (38.8)	2.26	.133[a]
Witness of physical and/or sexual violence in the family	51 (31.9)	35 (25.2%)	1.12	.139[a]
Victim of physical and/or sexual violence in the family	57 (35.6)	42 (30.2)	0.61	.308[a]
Beaten, kicked or punched by someone	113 (70.6)	73 (52.5)	**8.29**	**.004**[a]
Age at first admission to a forensic unit (years), mean (SD)	33.2 (10.5)	—	—	—
Number of lifetime admissions in forensic units, median (IQR)	1 [1; 1]	—	—	—
Total lifetime months spent in forensic units, median (IQR)	36 [16; 66]	—	—	—
Total lifetime months spent in prison, median (IQR)	6 [0; 12]	—	—	—
Number of years since the index violence, median (IQR)	4 [2; 7]	—	—	—

[a]Chi-square test.
[b]*t*-Test for equality of means.
[c]Fisher's exact test.

Decisional Capacity Scores on the MacCAT-T

The frequency distribution of MacCAT-T scores was asymmetric, with the majority of both forensic and non-forensic patients achieving high scores on each domain (figure 1). supplementary figure S1 shows the MacCAT-scores for both groups in the 5 participating countries. To facilitate the comparisons, scores are expressed as percentages.

Forensic and non-forensic patients did not show any difference in three of 4 MacCAT-T categories (table 2): understanding (Mann-Whitney $U = 12050$, $P = .208$), appreciation (Mann-Whitney $U = 9905$, $P = .080$), and expressing a choice (Mann-Whitney $U = 10677$, $p = 0.407$). Non-forensic patients scored higher on reasoning ($M = 6.1$, $SD = 2.3$ vs $M = 5.4$, $SD = 2.5$; Mann-Whitney $U = 9160$, $P = .007$).

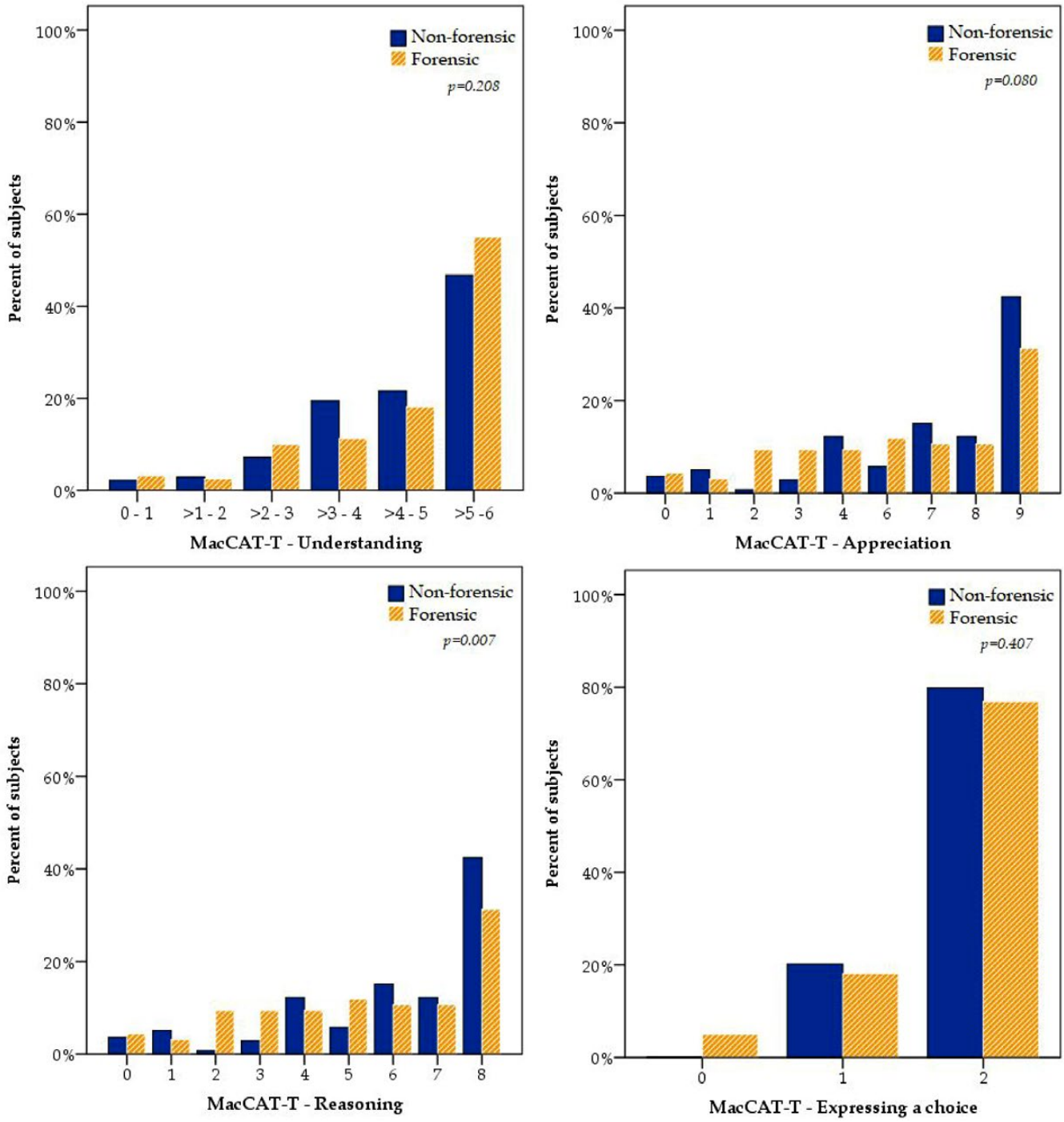

Fig. 1. MacCAT-T "understanding", "appreciation", "reasoning" and "expressing a choice" domains in forensic and non-forensic patients. "understanding" scores are rounded off to the nearest integer, p-values are reported for Mann-Whitney test).

Table 2. Mean Scores of MacCAT-T Scales

MacCAT-T	Forensic Patients (N = 160)	Non-forensic Patients (N = 139)	Mann-Whitney U Test, P
Understanding summary rating (range 0–6)			
Median [IQR]	5.4 [4; 6]	4.9 [3.7; 5.8]	*U = 12050, P = .208*
Mean (SD)	4.7 (1.4)	4.6 (1.3)	
Appreciation summary rating (range 0–4)			
Median [IQR]	3 [2; 4]	4 [3; 4]	*U = 9905, P = .080*
Mean (SD)	2.9 (1.3)	3.2 (1.0)	
Reasoning summary rating (range 0–8)			
Median [IQR]	6 [3; 8]	7 [5; 8]	***U = 9160, P = .007***
Mean (SD)	5.4 (2.5)	6.1 (2.3)	
Expressing a choice summary rating (range 0–2)			
Median [IQR]	2 [2; 2]	2 [2; 2]	*U = 10677, P = .407*
Mean (SD)	1.7 (0.6)	1.8 (0.4)	

55 forensic (34.4%) and 58 non-forensic patients (41.7%) showed high treatment-related decisional capacity, defined as scoring ≥ 75% of the maximum scores for the *understanding, appreciation and reasoning* MacCAT-T subscales and 2 for *expressing a choice* (see supplementary table S2).

To identify potential confounders, we investigated the relationship of socio-demographic and clinical features with MacCAT-T scores in the overall sample (supplementary table S3). Education, age at first contact with mental health service, time not engaged in nonstructured activities, and country were identified as confounders because they were associated with MacCAT-T scores and showed significant differences between forensic and non-forensic patients.

After adjusting for confounders, the "understanding" domain shows significant differences between forensic and non-forensic patients, with the former achieving on average 0.48 points more than the latter (P = .001), which amounts to a 9% difference. The domain of "reasoning", in contrast, was significantly lower in forensic patients by 0.64 points compared with non-forensic patients (P = .018; 8% difference) (table 3).

Socio-Demographic and Clinical Correlates of MacCAT-T Scores in Forensic and Non-Forensic Patients

As shown in table 4, several socio-demographic variables were associated with the four different domains of the MacCAT-T in multiple regression analyses. Among forensic patients, a better understanding was associated with lower age (P = .015) and more years of education (P = .005). Higher appreciation was related to self-harm (P = .004). Notably, a higher ability to express a choice was associated with social support from the family (P = .006), being a victim of violence (P = .041), substance use (p = .034), and not having witnessed violence (P = .045).

As to the non-forensic patients, being single, divorced or widowed was associated with lower scores on understanding (P = .002) and reasoning (P = .045). The SSD subgroup "other psychotic disorder" was associated with poorer understanding compared with schizophrenia (P = .012). Lifetime substance use was also positively related to understanding (P = .026). Finally, not being engaged in nonstructured activities for more than 6 hours per day was related to poorer appreciation (P = .028). The country was associated with each MacCAT-T domain among forensic and non-forensic patients.

Discussion

When individual decision-making domains were investigated *ceteris paribus*, ie, after controlling for demographic and clinical confounders, forensic patients exhibited modestly better understanding and poorer reasoning compared with their non-forensic counterparts. Lower scores in reasoning could be due to weightier consequences of the treatment for forensic patients than for their non-forensic counterparts: Because a person's capacity to make treatment decisions is relative to context, forensic patients may be especially challenged when reasoning about risks, and benefits of therapeutic options. The same might also be said to apply to appreciation,[16] although the difference detected by our study is not significant.

Three different studies from Ireland found results similar to (though slightly lower than) ours with regard to the scores of forensic patients for understanding, appreciation, and reasoning.[12–14] Another research project conducted in Ireland used either short or long introductory presentations to provide participants with information and an idiosyncratic scoring system for understanding. Notwithstanding these differences, summary scores for appreciation and reasoning were again below those of our forensic group.[15] This could be explained by the institutional conditions in each country, but also by different sampling strategies, interview techniques, raters' biases, or

Table 3. Associations Between Type of Subject and MacCAT-T Scores, Adjusted for Socio-demographic and Clinical Confounders[a]

	Understanding			Appreciation			Reasoning			Choice		
Parameter	*B*	95% CI	*P*	*B*	95% CI	*P*	*B*	95% CI	*P*	*B*	95% CI	*P*
Type of subject												
Non-forensic patients	*Ref. cat.*			*Ref. cat.*				*Ref. cat.*			*Ref. cat.*	
Forensic patients	**0.484**	**[0.196; 0.772]**	**.001**	−0.204	[−0.475; 0.068]	.142	**−0.636**	**[−1.162; −0.111]**	**.018**	−0.062	[−0.171; 0.047]	.263
Education years	**0.095**	**[0.050; 0.140]**	**<.001**	—	—	—	—	—	—	—	—	—
Country												
Austria	*Ref. cat.*			*Ref. cat.*								
England	**−1.616**	**[−2.107; −1.125]**	**<.001**	−0.26	[−0.727; 0.203]	.269	−1.22	**[−2.150; −0.290]**	**.010**	−0.08	[−0.275; 0.111]	.405
Poland	0.256	[−0.098; 0.611]	.156	**−0.55**	**[−0.873; −0.219]**	**.001**	−0.98	**[−1.634; −0.322]**	**.003**	**−0.31**	**[−0.443; −0.170]**	**<.001**
Italy	**0.808**	**[0.402; 1.213]**	**<.001**	**−0.75**	**[−1.141; −0.367]**	**<.001**	−2.48	**[−3.223; −1.730]**	**<.001**	0.09	[−0.061; 0.249]	.233
Germany	**0.673**	**[0.178; 1.169]**	**.008**	−0.01	[−0.475; 0.458]	.971	−0.45	[−1.351; 0.453]	.329	0.00	[−0.189; 0.185]	.984
Age of first contact with psychiatric systems	0.003	[−0.019; 0.013]	.731	0.00	[−0.015; 0.015]	.976	—	—	—	—	—	—
Time not engaged in nontherapeutic activities												
Less than 3 hours a day				Ref. cat.								
Up to 6 hours a day	—	—	—	**−0.45**	**[−0.791; −0.108]**	**.010**	—	—	—	—	—	—
More than 6 hours a day	—	—	—	−0.07	[−0.41; 0.262]	.665	—	—	—	—	—	—
(Intercept)	3.22	[2.565; 3.872]	<.001	3.67	[3.217; 4.122]	<.001	6.93	[6.407; 7.451]	<.001	1.87	[1.757; 1.973]	<.001

[a]Results of multiple regression analysis.

Table 4. Demographic and Clinical Characteristics Associated With Maccat-T Scores Among Forensic and Non-forensic Patients[a]

	Understanding			Reasoning			Appreciation			Choice		
	B	95% CI	*P*	*B*	95% CI	*P*	*B*	95% CI	*P*	*B*	95% CI	*P*
Non-forensic patients												
(Constant)	4.22	[3.385; 5.054]	<.001	8.60	[7.233; 9.967]	<.001	3.53	[3.258; 3.81]	<.001	1.96	[1.861; 2.071]	<.001
Marital status												
Married (ref category)	Ref. cat.			Ref. cat.			—	—	—	—	—	—
Single/divorced/widowed	−1.16	[−1.899; −0.423]	.002	−1.40	[−2.757; −0.033]	.045	—	—	—	—	—	—
Type of SSDs												
Schizophrenia (ref. category)	Ref. cat.			—	—	—	—	—	—	—	—	—
Other	0.59	[0.13; 1.048]	.012	—	—	—	—	—	—	—	—	—
Lifetime substance and/or alcohol use	0.53	[0.066; 0.986]	.026	—	—	—	—	—	—	—	—	—
Time not engaged												
More than 6 hours a day	—	—	—	—	—	—	−0.45	[−0.841; −0.05]	.028	—	—	—
Country												
Austria	Ref. cat.			Ref. cat.			Ref. cat.			Ref. cat.		
Germany	1.52	[0.944; 2.103]	<.001	−1.00	[−2.058; 0.05]	.062	0.07	[−0.429; 0.566]	.786	−0.11	[−0.309; 0.080]	.247
Italy	1.32	[0.751; 1.882]	<.001	−3.19	[−4.225; −2.164]	<.001	−0.53	[−1.032; −0.035]	.036	−0.06	[−0.248; 0.135]	.56
Poland	1.78	[1.295; 2.257]	<.001	−1.20	[−2.069; −0.34]	.007	−0.22	[−0.635; 0.191]	.289	−0.43	[−0.588; −0.270]	<.001
England	−0.17	[−2.297; 1.95]	.872	−1.20	[−5.096; 2.686]	.541	0.47	[−1.37; 2.302]	.616	0.04	[−0.678; 0.765]	.905
Forensic patients												
(Constant)	5.04	[4.116; 5.969]	<.001	6.05	[5.318; 6.777]	<.001	2.98	[2.540; 3.429]	<.001	1.44	[1.198; 1.675]	<.001
Age	−0.02	[−0.039; −0.004]	.015	—	—	—	—	—	—	—	—	—
Years of education	0.09	[0.028; 0.153]	.005	—	—	—	—	—	—	—	—	—
Social support												
Family	—	—	—	—	—	—	—	—	—	0.26	[0.078; 0.447]	.006
Witnessed violence	—	—	—	—	—	—	—	—	—	−0.18	[−0.36; −0.005]	.045
Victim of violence	—	—	—	—	—	—	—	—	—	0.18	[0.008; 0.357]	.041
Lifetime substance and/or alcohol use	—	—	—	—	—	—	—	—	—	0.20	[0.016; 0.384]	.034
Attempted suicide/self-harm	—	—	—	—	—	—	0.61	[0.197; 1.025]	.004	—	—	—
Country												
Austria	Ref. cat.			Ref. cat.			Ref. cat.			Ref. cat.		
Germany	0.32	[−0.588; 1.231]	.486	1.24	[−0.692; 3.168]	0.207	0.26	[−0.682; 1.200]	.587	−0.06	[−0.438; 0.313]	.743
Italy	0.39	[−0.169; 0.943]	.171	−1.83	[−2.991; −0.659]	0.002	−0.71	[−1.316; −0.097]	.023	0.25	[0.021; 0.47]	.032
Poland	−0.63	[−1.113; −0.152]	.01	−0.66	[−1.665; 0.353]	0.2	−0.65	[−1.168; −0.124]	.016	−0.21	[−0.407; −0.007]	.042
England	−2.4	[−3.001; −1.793]	<.001	−1.05	[−2.332; 0.237]	0.109	−0.44	[−1.103; 0.223]	.192	−0.13	[−0.386; 0.123]	.309

[a]Results of multiple regression analysis.

intraindividual factors. Forensic patients in Ireland were mostly diagnosed with a broader category of "psychosis" instead of specific diagnoses of SSDs. Finally, it should be noted that most patients were still deemed to have sufficient decision-making capacity, even if their scores were on average lower than those found in this study.

About one-third (34.4%) of the forensic patients showed high treatment-related decision-making capacity, with no significant difference compared with their non-forensic counterparts. These results appear consistent with, albeit somewhat higher than, those provided by Mandarelli et al on non-forensic patients (22%).[31] These results suggest that a large proportion of both forensic and non-forensic patients with SSDs have substantial decisional capacities.

As regards socio-demographic variables, our results support the consensus view[1] of their limited impact on decision-making capacity. Among the few statistically significant variables, the only one directly relevant to policy is "social support": forensic patients enjoying family support during hospitalization, in fact, performed better on "choice".

Forensic patients showed differences in their capacity to consent to treatment across countries in this study. However, the study has insufficient power to conduct formal statistical testing of these differences. Different scores might be due to the fact that, for obvious linguistic reasons, interviews were conducted by different researchers. Given the adequate interrater reliability demonstrated by the MacCAT-T,[4,6,28,33] other explanations, such as local institutional configurations, should be taken into account. The use of the general labels "forensic psychiatry", and "forensic patient" do not do justice to the national variation in legal frameworks and key concepts regulating detention and treatment of mentally ill offenders.[11,34–37]

The criterion of criminal responsibility and its relative weight in admission decisions to forensic psychiatric institutions are not consistent across countries. In the English framework, rooted in the Common Law tradition, patients can be admitted to forensic services without having committed a crime, on the basis of a finding of mental disorder and serious dangerousness. Moreover, the concept of diminished responsibility is irrelevant, except in cases of homicide. In contrast, in Austria, Germany, Italy, and Poland a person must have committed a crime or a forbidden act, to be admitted to a forensic facility. In these countries, the legal framework is dominated by Roman Law or a combination of Roman and Common Law, and commitment to a forensic facility depends on the assessment of criminal responsibility (at the time of offense) and dangerousness (at the time of trial). Although Austria applies a dichotomous concept of criminal responsibility (either full or absent), Italy, Germany, and Poland adopt a graded concept (lacking, diminished, or full), and the relationship between criminal behavior and the mental disorder is a determining factor with regard to a finding of nonresponsibility or partial responsibility. The criterion for retention is consistently based on continuing dangerousness, rather than the patient's psychiatric condition, although Italy constitutes an exception, as the maximum duration of confinement in forensic institutions cannot exceed the maximum prison sentence for the same crime.[38] More details about the different institutional and legal contexts of forensic psychiatry in Europe can be found elsewhere.[37]

These national differences in admission and discharge criteria, not to mention treatment philosophies, service provision, and emphasis on quality of life,[38,39] must not be underestimated in evaluating the data presented here. As is known from the literature, they result in a heterogeneity of prevalence and incidence patterns,[38] as well as of average length of stay.[22,38,40,41] Our study suggests that they may have an additional bearing on the very "profile" of the patients as reflected by the appreciable differences in individual capacity to consent to treatment.

The small samples collected in some countries limited our ability to conduct analyses stratified by country. Moreover, although comparisons between forensic and non-forensic patients were adjusted for confounders, unknown confounders could not be taken into account. Finally, it must be acknowledged that a whole set of factors are not captured by cognitive assessment tools, namely emotions, personal values, and other biographic and context-specific aspects.[42–44] Our data do not allow us to make judgments about the relative impact of these variables on the decision-making capacities of forensic or non-forensic patients.

Conclusions

Attributing impaired decisional capacity to persons committed to forensic institutions merely on the basis of their legal status (or criminal history) is not only unwarranted, but also a potential source of stigma, inappropriate treatment, and oversight.

Our results suggest that an appreciable impact of age and education on the capacity to consent, and an association with social contacts of unclear directionality. A similar correlation regarding social support has been suggested by previous studies on the psychosocial functioning of persons diagnosed with schizophrenia,[45] as well as of forensic patients with personality disorders.[46] Assuming a causal role for social interaction in supporting decisional capacity, an effort to improve the quality and quantity of social contacts might provide a substantial contribution towards enhancing the decisional autonomy of both forensic and non-forensic patients. The overall degree to which both groups manifested impaired decisional capacities suggests that the importance of efforts to improve their abilities to make treatment decisions by all available means, including ameliorating the symptoms

of their disorders with medication. In the light of the principle of reciprocity,[47] restoration or optimization of autonomy is a paramount moral obligation vis-á-vis subjects who are deprived of liberty as a consequence of their mental condition and forensic status.

The data presented here offer an impulse towards the strengthening of a comparative perspective in forensic psychiatry in Europe. Opportunities for large cross-national comparisons are of course rare. Nevertheless, harmonization of the approach and methodology among national studies would afford researchers and policymakers a shared knowledge base, which would, in turn, facilitate the consolidation of a moral common ground. The approach showcased in this could provide a model for such a shared approach, benefiting at once legislators, caregivers, and, hopefully, patients.

Supplementary Material

Supplementary data are available at *Schizophrenia Bulletin* Open online.

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