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Civil Commitment in the Psychiatric Emergency Room:

II. Mental Disorder Indicators and Three Dangerousness Criteria

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Abstract

Proponents of return to a “need for treatment” standard for civil commitment contend that the current dangerousness standard forces psychiatrists to neglect severely ill patients in favor of those who are less ill but dangerous to others. Among 198 psychiatric emergency patients in five facilities, those rated as most dangerous on Three Ratings of Involuntary Admissibility, a reliable index of indicators employed by clinicians in evaluating danger to self, danger to others, and grave disability, were also most severely ill on diagnostic and symptomatic assessments of mental disorder. Clinicians’ Global Ratings of patient dangerousness on the three criteria were similarly related to severity of diagnosis and symptoms. Perceived dangerousness was associated with major mental disorder and severity of most symptom types, especially impulsivity. Danger to self was the criterion related to the fewest indicators of mental disorder.

Although courts and legislatures have increasingly restricted the use of involuntary psychiatric hospitalization to cases in which a person is dangerous due to mental disorder,^{1–4} the relationship between dangerous behavior and mental disorder is continually debated.^{5–7} This debate is cited both by advocates of return to a less restrictive criterion for civil commitment^{4,8} and by those who would even more drastically curtail the use of civil commitment procedures.⁹ The implication is that many patients admitted under dangerousness criteria are “not really mentally ill” or are at least not in need of⁸ or treatable in¹⁰ acute-care psychiatric facilities. Despite this vigorous debate, the nature and extent of the relationship between various indicators of dangerousness and mental disorder at the time civil commitment is initiated have seldom been systematically studied.

Most state commitment statutes today are modeled after California’s Lanterman-Petris-Short Act,¹¹ which specifies three “dangerousness” criteria: danger to self, danger to others, and grave disability. (The relationship between dangerousness and grave disability was explicated by Federal District Court Judge Ferguson, who held that the grave disability criterion, inability to provide for basic physical needs, “implicitly requires a finding of harm to self.”¹²) In this era of community-based treatment, most initial evaluations for involuntary

commitment are conducted in general hospital emergency rooms.¹² It is in this context that we propose to consider the question of the relationship between mental disorder and dangerousness.

STUDY METHOD

The researchers, data-gathering procedures, settings, clinicians, and social characteristics of the patient sample are described in our first companion article, as are our measures of dangerousness, Three Ratings of Involuntary Admissibility (TRIAD), and the Clinician's Global Rating (CGR).¹³

We chose two operational definitions of mental disorder for our study: (1) psychiatric diagnosis as assigned by the psychiatric emergency service evaluating clinician according to *DSM-III* criteria, and (2) a measure of the severity of discrete manifestations of mental disorder as rated by our research clinicians observing the evaluation. The former is consistent with emergency room commitment provisions in California's administrative code at the time of the study¹⁴; the latter is consistent with the approach suggested by *People v Triplett*¹⁵ and the American Psychiatric Association "model law."^{10(p312)}

To facilitate analysis it was necessary to collapse *DSM-III* diagnoses into three broad groups of disorders: major mental disorder, personality disorder, and "other disorders." The major mental disorder group included *DSM-III* Axis I diagnoses of major organic illness, major affective disorder, schizophrenia, and other psychotic disorders. The "personality disorder" group included all patients who had been assigned a *DSM-III* Axis II diagnosis and did not have an Axis I major mental disorder diagnosis. All other patients were placed in the residual category "other." Individual *DSM-III* diagnoses are less reliable than broader *DSM-III* diagnostic categories,¹⁶ and this instability may be heightened by the constraints of an emergency room assessment. Thus, collapsing *DSM-III* diagnoses into groups should increase the reliability of this measure of mental disorder.

To measure the severity of discrete manifestations of mental disorder, we developed the Indicators of Mental Disorder Scale (IMDS) (see: Appendix IMDS). The IMDS reflects the dimensions of mental disorder specified in several state statutes¹⁷ and in state administrative regulations pursuant to the Massachusetts civil commitment law,¹⁸ a definition seemingly compatible with the language in *Triplett*.¹⁵ According to this definition, mental illness is "a substantial disorder of thought, mood, perception, orientation, or memory which grossly impairs judgment, behavior, [or] capacity to recognize reality or to meet the ordinary demands of life."^{17,19} In addition, the IMDS includes items measuring impulse control and affect. The internal consistency (α) of the IMDS—excluding the scores for depression and anxiety, the items least related to the other symptom dimensions—was .81 ($N = 251$). The interrater reliability (Pearson) coefficient was $r = .7$ ($n = 30$).

RESULTS

Diagnostic Characteristics of the Sample

Table 1 summarizes the diagnostic characteristics of the sample. Diagnoses given previously to sample patients are noted, as well as the diagnoses assigned in the index evaluation. The largest group, 47.6% of the sample, came to the emergency room with previously diagnosed major disorders, 18% with other diagnoses, and 34.3% without any clear diagnostic history. During the index evaluation, 54.8% received a major *DSM-III* Axis I diagnosis, whereas 33.2% were given “other” *DSM-III* Axis I diagnoses. In addition, 14% were given an Axis II personality disorder diagnosis but no major diagnosis on Axis I.

Symptom Presentations

Table 2 provides a description of the severity of the patients’ disturbance by specific symptoms. The symptom categories are ranked in order of the proportion of the patient sample presenting with severe or moderate disturbances on each problem area. Thus, 80% of the patients sampled were classified as moderately or severely impulsive, 65% showed moderate or severe problems with making judgments, and 60% were rated moderately or severely depressed.

On nine of the 13 dimensions of mental disorder, at least a third of the patients were considered moderately or severely disturbed. It would appear, therefore, that these symptom categories are effective descriptors of the emergency room population. The disturbance most frequently rated as moderate or severe was impulsivity.

Relating Dangerousness to Mental Disorder

Diagnostic Group and Dangerousness.—Table 3 shows the relationship between diagnostic group membership and dangerousness scores. Whether dangerousness was measured by TRIAD or the CGR, the relationships with diagnostic categories were consistent. The relationship between a major mental disorder diagnosis and dangerousness scores is significant and positive. By contrast, “other” diagnoses are significantly associated with *lower* dangerousness scores. There appeared to be no relationship between perceived dangerousness (whether measured by TRIAD or CGR) and a *DSM-III* Axis II diagnosis of personality disorders in the absence of a major Axis I disorder.

The strongest relationship between major mental disorder and perceived dangerousness obtains for those patients thought to be gravely disabled (Table 4). The positive relationship between overall dangerousness ratings and major diagnoses is largely attributable to gravely disabled patients. The overall appearance of no relationship between personality disorder diagnoses and dangerousness is attributable to the opposite relationships of danger to self and grave disability with personality disorders canceling each other out.

Symptom Scores and Dangerousness.—Table 5 lists the coefficients of correlation between each of the 13 symptom scores and the respective severity scores derived from independent assessments of dangerousness by our research observers and the evaluating clinicians. Though all the correlations are modest, only those for depression and anxiety

were not statistically significant at least at the $P .05$ level. All other correlations were significant at $P .01$. Impulsivity was the symptom most strongly related to perceived dangerousness ($r = .49$).

The correlations between the two independent ratings of dangerousness and the measures of mental disorder tend to mirror each other almost identically. In fact, if each of the symptom/dangerousness correlation coefficients is treated as a separate observation of the relationship between mental disorder and dangerousness, the relationship between the two measures—ie, the correlation of these coefficients—is (Pearson) $r = .968$. This indicates high agreement between two independent measures on the extent of relationship observed between a given symptom and the severity of dangerousness.

A Model of the Statutory Relationship of Dangerousness and Mental Disorder

Recent statutory definitions of mental disorder for purposes of civil commitment in Georgia, Idaho, Michigan, New Mexico, Ohio, Oklahoma, Vermont, and Wisconsin,¹⁷ and the administrative guidelines pursuant to the Massachusetts Mental Health Act of 1970,¹⁹ cite not only particular dimensions of mental disorder but also a certain hierarchy or causal ordering of symptoms in relation to dangerousness. To meet the standard, according to these definitions, dangerousness must be caused by gross impairment in judgment or behavior, which in turn must be caused by disorders of thought, mood, perception, orientation, or memory.

The Figure is a representation of a causal path analysis that models this statutory definition of mental disorder and the relationship between this definition of mental disorder and the legal criteria of dangerousness. The dangerousness score is the TRIAD assessment of severity of perceived dangerousness. Given that the statutory definition of mental illness speaks of a causal ordering of two symptom groups, we created two subscales from the IMDS. The first includes the primary dimension of mental disorder according to the statutes—ie, disorders of thought, mood, perception, orientation, or memory—that we refer to in this section as symptoms. The second, impaired judgment and behavior, includes those manifestations of mental disorder that must be “caused” by the primary symptoms. Because of its stronger association with dangerousness, we included impulsivity to test the relationship between impulsivity and the other two groups of mental disorder indicators *vis-à-vis* perceived dangerousness.

Acting together, these three indicators of mental disorder explained 29% of the variance in the behavioral manifestations of dangerousness. Only one path failed to reach significance in the analysis. Surprisingly, impaired judgment and behavior was not related to the behavioral manifestations of dangerousness when patient impulsivity and symptom presentation were taken into account. This latter finding establishes the importance of certain primary indicators of mental disorder in relation to behavioral patterns perceived as dangerous in the emergency room.

This model is replicated when clinicians’ global assessments of the severity of dangerousness are used as the primary dependent variable instead of TRIAD scores. In both

cases, impaired judgment and behavior is not a significant causal factor in behavior perceived as dangerous, and impulsivity emerges as the most important predictor.

Impulsivity and Dangerousness

Most notable is the strength of the relationship between IMDS impulsivity, on the one hand, and dangerousness severity ratings by both the clinician and the independent observer. For patients with Axis II personality disorders and no Axis I major disorder, impulsivity is the only symptom positively and significantly associated with dangerousness ($r = .66$, $P .001$). (This is not to say that personality disordered patients in the emergency room have no other symptoms. In only three of 198 cases in which impulse control was assessed was impulsivity the only symptom manifested. All three patients scored at the lowest level of dangerousness and none was given a diagnosis of personality disorder.)

That impulsivity is strongly related to the concepts of dangerousness is further indicated by the fact that TRIAD and CGR ratings were more likely to agree when impulsivity was rated high than when the patient was judged less impulsive ($P < .02$). For cases in which TRIAD severity differed from CGR severity, the mean impulsivity score was .85 (the absent to moderate range). For the cases in which the two dangerousness ratings agreed, the mean impulsivity score was 1.14 (the moderate to severe range).

Symptoms and the Three Dangerousness Criteria

Having examined the relationship between symptoms and overall perceived dangerousness scores, we will now look at the associations among various types of symptoms and each of the three distinct dangerousness criteria. Danger to self was the involuntary admission criterion related to the fewest mental disorder indicators (Table 6). Most strongly associated with danger to self (whether measured by the researcher's TRIAD or the CGR) were IMDS depression and impulsivity. Danger to others was related most strongly to impulsivity and irritability and was also significantly associated with disorders of thought form, thought content, and judgment, expansive mood, and inappropriate affect. Grave disability was significantly related to all IMDS dimensions. However, the relationship to depression and anxiety was negative, ie, the more depressed and/or anxious the patient, as measured by the IMDS, the less likely was he to be given a high rating on the grave disability scales.

The TRIAD and the CGR detected a strikingly similar pattern of relationships of each of the three criteria to specific symptoms. For example, TRIAD danger to others was related to eight symptom dimensions and CGR danger to others to the same eight dimensions (and, weakly, to an additional dimension). As a further example, the correlation for TRIAD danger to others and thought form was $r = .24$ as compared with $r = .26$ for CGR danger to others and formal thought disorder. This similarity suggests that the patterns of relationship among specific symptoms and specific dangerousness scales validly reflect clinical thinking.

Symptom Clusters and the Dangerousness Criteria

Another way to look at mental disorder is in terms of related groups of symptoms leading to overall impressions of patients. Factor analysis enables us to describe such symptom groupings and how they might be related to perceived dangerousness. The factor analysis of

the IMDS symptoms presented in Table 7 describes four symptom dimensions: sensory functioning, thought disorder, derangement, and distress.

The sensory factor, defined primarily by problems of orientation, memory, and perception, was not associated with danger to self or others on either TRIAD or the CGR (Table 8), but it was significantly related to grave disability and overall severity of perceived dangerousness on each of the instruments.

The thought disorder factor, defined primarily by problems of thought content and form, expansiveness, and affect, was weakly but negatively related to TRIAD danger to self and unrelated to clinicians' danger to self ratings. However, that factor was significantly related to all other TRIAD and CGR scores (danger to others, grave disability, and severity—overall dangerousness—scores). The derangement factor, defined by impulsivity, irritability, and judgment and behavior problems, was positively related to all TRIAD and CGR scores, most strongly to severity (overall dangerousness) scores and to disposition.

The distress factor, defined by problems of anxiety and depression, was related significantly but negatively to grave disability and severity scores on both instruments. It was not positively associated with any of the scale scores except, weakly, the clinician's danger to self rating.

COMMENT

Three major aspects of the relationship between mental disorder and dangerousness require discussion. These are its complexity, its multidirectional nature, and the role of patient impulsivity.

A Complex Relationship

The association between mental disorder and dangerousness in the psychiatric emergency population is complex. The three dangerousness criteria (danger to self, danger to others, and grave disability) differ as to both the diagnostic categories and types of symptoms with which they are associated. Most dramatic is the difference between danger to self and grave disability. Although, according to “dangerousness standard” rulings, grave disability is an alternative danger to self criterion, the two concepts refer to quite distinct clinical entities.

With danger to self and grave disability at almost opposite poles in relation to symptoms of mental disorder and diagnostic categories, danger to others falls in the middle. Although some critics would have us believe that the danger to others criterion brings into the system people who are less ill than those meeting the other criteria, it is actually danger to *self* that is related in our psychiatric emergency room sample to the fewest legally specific dimensions of mental disorder, and the relationship to those dimensions is modest.

The finding that perceived danger to others is related to several mental disorder dimensions is consistent with that of Monahan et al.²⁰ In that study, patients “whose commitment criteria included danger to others were significantly more likely than other patients to have a prognosis of severe personality deterioration ... and other major distress.”

Symptoms most strongly related to danger to others in our sample were irritability and impulsivity, but there were also consistent moderate associations with formal thought disorder, thought content disorder, and expansiveness as well as weaker but consistent significant correlations with impaired judgment and behavior and inappropriate affect. These findings are entirely consistent with clinical data and clinical wisdom regarding the association of particular symptoms with violence toward others.^{21–41}

The lack of relationship between danger to others and personality disorder requires further exploration in view of the association between the two in the literature.^{25,26,42,43} Further exploration is important in view of the commonly held assumption that this category of patient, dangerous to others and having a personality disorder rather than a major mental disorder, is inappropriately tying up critically needed resources.

The Importance of Impulsivity

Impulsivity is conceptualized as a relative lack of ability to pause, reflect, and choose and/or pursue goals other than immediate gratification or relief.⁴⁴ It is manifested as a propensity for apparently nonreflective, maladaptive action⁴⁵ and may be a stable trait or the effect of a temporary state.

All three dangerousness criteria have in common an association with impulsivity. The association between perceived impulse control and perceived dangerousness is striking. No other dimension of mental disorder is as strongly related to danger to self or others, and impulsivity is also related to grave disability. In fact, those individuals presenting in the emergency room with impaired judgment and behavior patterns caused by or associated with other, “primary” symptoms may not be perceived as dangerous unless their disturbed behavior and judgment are thought to be associated with impaired impulse control. This may account for some concern and confusion about the types of patients appropriate for emergency evaluations. In some cases, the public may perceive the dangerous actions of mentally ill individuals whose judgment and behavior are impaired to be a result of their mental disorder. Professionals, however, may judge that, because these individuals have adequate impulse control, their mental illness is *not* the cause of the dangerous actions.

It seems that policymakers, in failing to name “impulsivity” as a dimension of mental disorder as defined for purposes of civil commitment (in such statutory definitions as do exist), may have overlooked an aspect of mental functioning that is very important in civil commitment evaluations under the dangerousness standard. It would appear that clinicians, in the same process by which they decide whether poor judgment or disorganized or “bizarre” behavior results from disorders of thought, mood, perception, orientation, or memory, also attempt to assess the origins of any impairment in impulse control.

One problem clinicians have in deciding whether acute psychiatric treatment is appropriate for impulsive patients is that of determining whether the person’s impulsivity is the effect of an acute condition, such as delirium or other psychotic crisis, or whether it reflects an enduring personality style. The clinician may feel more comfortable in determining that the patient meets the commitment criteria in the cases in which the impulsivity is accompanied by disorders of thought, mood, perception, orientation, or memory. However, a difficulty

arises in cases where the patient is potentially dangerous, impulsivity is an enduring characteristic, and there is little symptomatology. This would appear to be the case most often with patients with personality disorder, where impulsivity is the only indicator of mental disorder significantly correlated with dangerousness. Although our data would indicate that such cases are rare in the facilities we studied, any such case may pose a particularly difficult disposition problem. A small number of memorable cases may cause a distortion in clinician perspective and contribute to the idea that the dangerousness standard is saddling the mental health system with less-ill patients while excluding those who are most in need of care.

A Multidirectional Relationship

Despite variations among the three dangerousness criteria in the symptoms with which they are associated, overall perceived dangerousness scores on both TRIAD and the CGR were positively related to all symptom types except depression and anxiety. Thus, the more severely disordered a patient is on any mental disorder dimension, except depression and anxiety, the higher is the overall dangerousness of the patient as perceived by clinicians.

Our findings demonstrate a positive relationship between major mental disorder and level of perceived dangerousness in the psychiatric emergency room population. At the same time, the negative relationship between dangerousness and “other” diagnoses may explain the impression of some professionals that dangerousness is not related to mental disorder when considering all the categories of mental disorder. The positive relationship to the major disorders is canceled out by the negative relationship to the “other” disorders, resulting in an overall lack of relationship.

A Caveat

We might suspect that patients coming to the emergency room in the age of the “dangerousness” standard would be preselected (by referral sources) to be, on the whole, both dangerous and mentally ill. Nevertheless, some authors suggest the system is currently forced to allocate resources to many patients who are not “really” mentally ill or to question the extent to which dangerousness is related to mental disorder in the psychiatric emergency services population. We have tried to address these important issues by describing a sample of patients recently seen in psychiatric emergency rooms. The question of the additional number of severely ill persons in the community who might be brought for evaluation if another standard for civil commitment prevailed is beyond the scope of our study.

What our findings do indicate is that the phenomena to which clinicians respond in estimating dangerousness co-vary with symptoms and diagnoses in psychiatric emergency referrals. Thus, the most severely ill among psychiatric emergency room patients are also those perceived as most closely fitting the dangerousness criteria for commitment.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Causal path model predicting assessment of Three Ratings of Involuntary Admissibility (TRIAD) severity of dangerousness scores from three components of mental disorder. Partial standardized regression coefficients, given with arrows, are significant at $P < .01$ (NS indicates not significant). Three equations delineate relationships: (1) $x_1 = 1.1 + 0.35x_2 + 0.02x_3 + 0.27x_4$, $R = .54$, 29% of variance accounted for by predictors; (2) $x_2 = 0.41 + 0.27x_3 + 0.39x_4$, $R = .57$, 33% of variance accounted for by predictors; (3) $x_3 = 0.12 + 0.47x_4$, $R = .47$, 22% of variance accounted for by predictors. In each question, $n = 198$, $P < .001$.

Table 1.—

Mental Disorder and the Patient Sample: Diagnosis (N = 251)

Diagnosis	%
Previous diagnoses *	
Major affective disorder ± schizophrenia	11.6
Other schizophrenia (excluding paranoid schizophrenia)	9.6
Paranoid schizophrenia	9.6
Paranoid schizophrenia + other schizophrenia	9.2
Schizophrenia ± substance abuse	2.0
Major organic disorder	4.0
Acute or atypical psychotic disorder	1.6
Substance abuse only	4.8
Adjustment reaction or anxiety disorder	4.0
Other nonpsychotic disorder	9.2
No previous diagnosis	23.5
Unclear or missing	10.8
Total	99.9[†]
Current diagnosis (<i>DSM-III</i> Axis I)	
“Major disorder”	
Schizophrenia or schizoaffective disorder	32.0
Major affective disorder	10.4
Major organic disorder	6.4
Other psychotic disorder	6.4
“Other”	
Adjustment or anxiety disorder	21.2
Acute organic or substance use disorder	8.4
Other nonpsychotic disorder	2.4
No mental disorder, or diagnosis deferred	1.2
Not reported	11.6
Total	99.6[†]
Current diagnosis (<i>DSM-III</i> Axis II)	
Personality disorder	14.0
Diagnosis deferred	60.0
Unreported or no diagnosis on Axis II	26.0
Total	100.0

* Primary diagnosis in the past, by category.

[†] Not equal to 100% due to rounding.

Table 2.—

Percentage of Patients Presenting With Moderate or Severe Disturbance by Symptom Type

Symptom Type	% (N = 251)
Impulsivity	80 *
Judgment disorder	65
Depression	60
Thought content disorder	49
Behavior disorder	49
Irritability	44
Thought form disorder	43
Inappropriate affect	41 †
Anxiety	35
Perception disorder	27
Memory disorder	25
Orientation disorder	21
Expansiveness	12

*
n = 199†
n = 200

Table 3.—Correlation Between Diagnostic Group and Dangerousness ^{*}

Diagnostic Group	TRIAD Severity Score (n = 223)	CGR Severity Score (n = 221)
Major mental disorder	.13 [†]	.28 [‡]
Personality disorder	.05	.00
Other diagnoses	-.18 [‡]	-.31 [‡]

^{*} TRIAD indicates Three Ratings of Involuntary Admissibility; CGR, Clinician's Global Rating. The correlations between each diagnostic group and TRIAD severity scores were not significantly different from the correlations between each diagnostic group and CGR severity scores.

[†] $P < .05$.

[‡] $P < .01$.

Table 4.—

Correlations Between Diagnostic Group and Specific Dangerousness Criteria *

Diagnostic Category	TRIAD Scale Scores			Clinician's Global Ratings		
	DSS	DOS	GDS	DSS	DOS	GDS
Major mental disorder	-.18 (.003)	NS	.4 (.000)	NS	.15 (.01)	.47 (.000)
Personality disorder	.17 (.005)	NS	-.17 (.005)	.16 (.009)	NS	-.15 (.015)
Other	NS	NS	-.31 (.000)	NS	-.2 (.001)	-.42 (.000)

* TRIAD indicates Three Ratings of Involuntary Admissibility; DSS, danger to self score; DOS, danger to others score; GDS, grave disability score; NS, not significant. Parenthetical values are *P* values.

Table 5.—

Correlations Between Symptom Scores and Severity of Dangerousness *

Symptom	TRIAD (Researcher) Severity Score (N = 251)	CGR (Clinician) Severity Score (n = 249)
Impulsivity	.49 [†]	.49 [†]
Judgment	.26	.25
Depression	-.07 [‡]	-.08 [‡]
Thought content	.29	.30
Behavior	.18	.22
Irritability	.25	.25
Thought form	.34	.35
Inappropriate affect	.31 [§]	.26 [§]
Anxiety	-.10 [‡]	-.11 [‡]
Perception	.25	.21
Memory	.22	.21
Orientation	.26	.26
Expansiveness	.19	.19

* For explanation of abbreviations, see Table 3; $r = .968$ ($n = 13$).[†] $n = 199$.[‡] Not significant.[§] $n = 200$.

Table 6.—

Correlation Coefficients for TRIAD and CGR Scales and Severity Scores With IMDS Dimensions*

	Th F	Th C	Per	Ori	Mem	Judg	Beh	Depr	Anx	Irr	Exp	Imp	Aff
TRIAD (n = 251)													
DSS	-.1 [†]	-.12 [†]	.04	.04	-.04	.1	-.04	.3 [†]	.05	-.04	-.07	.23 [†]	.15 [†]
DOS	.24 [†]	.25 [†]	.08	.06	.06	.21 [†]	.17 [†]	-.1	-.07	.47 [†]	.26 [†]	.44 [†]	.18 [†]
GDS	.68 [†]	.56 [†]	.33 [†]	.51 [†]	.4 [†]	.34 [†]	.34 [†]	-.28 [†]	-.2 [†]	.22 [†]	.29 [†]	.41 [†]	.41 [†]
Severity	.34 [†]	.29 [†]	.25 [†]	.26 [†]	.22 [†]	.26 [†]	.18 [†]	-.07	-.1	.25 [†]	.19 [†]	.49 [†]	.32 [†]
CGR(n = 249)													
DSS	.03	.05	.04	.06	.01	.03	.01	.34 [†]	.08	.1	.12 [†]	.3 [†]	.16 [†]
DOS	.26 [†]	.31 [†]	.09	.05	.03	.13 [†]	.13 [†]	-.08	-.08	.34 [†]	.21 [†]	.4 [†]	.24 [†]
GDS	.5 [†]	.48 [†]	.31 [†]	.36 [†]	.34 [†]	.27 [†]	.37 [†]	-.31 [†]	-.13 [†]	.19 [†]	.25 [†]	.34 [†]	.31 [†]
Severity	.35 [†]	.3 [†]	.21 [†]	.26 [†]	.21 [†]	.25 [†]	.22 [†]	-.08	-.11 [†]	.25 [†]	.19 [†]	.49 [†]	.26 [†]

* TRIAD indicates Three Ratings of Involuntary Admissibility; CGR, Clinician's Global Rating; IMDS, Indicators of Mental Disorder Scale; Th F, thought form; Th C, thought content; Per, perception; Ori, orientation; Mem, memory; Judg, judgment; Beh, behavior; Depr, depression; Anx, anxiety; Irr, irritability; Exp, expansiveness; Imp, IMDS impulsivity; Aff, affect; DSS, danger to self score; DOS, danger to others score; GDS, grave disability score.

[†] $P < .05$.

Table 7.—

Indicators of Mental Disorder Scale (IMDS) Factors *

Variables by Name	Dimension			
	Sensory Functioning	Thought Disorder	Derangement	Distress
Orientation	.83	.05	.14	-.23
Memory	.72	.07	.06	-.04
Perception	.45	.30	.02	.23
Thought content	.17	.85	.20	-.02
Thought form	.37	.68	.29	-.23
Expansiveness	-.11	.42	.32	-.03
Affect	.16	.35	.30	-.27
Impulsivity	.15	.25	.65	-.15
Irritability	-.10	.16	.59	-.07
Judgment	.20	.07	.50	-.12
Behavior	.31	.15	.38	-.19
Anxiety	.03	.03	-.10	.52
Depression	-.11	-.26	-.05	.44

* Principal factor analysis of the IMDS symptoms using vari maxi rotation, after seven iterations. The within-table values are the factor loadings (a) or correlation of the symptom score with the dimension.

Table 8.—Mental Disorder Factors and Assessments of Dangerousness: Significant Correlation Coefficients^{*}

	DSS	DOS	GDS	Severity (“Dangerousness”)
TRIAD				
Sensory functioning	...	...	.49 [†]	.24 [†]
Thought disorder	-.15 [‡]	.28 [†]	.53 [†]	.24 [‡]
Derangement	.19 [‡]	.49 [†]	.38 [†]	.4 [†]
Distress	...	...	-.31 [†]	-.16 [†]
CGR				
Sensory functioning	...	...	.38 [†]	.21 [†]
Thought disorder	...	.34 [†]	.39 [†]	.2 [‡]
Derangement	.25 [†]	.37 [†]	.26 [†]	.37 [†]
Distress	.13 [‡]	...	-.26 [†]	-.19 [‡]

^{*} Pearson r ($n = 172$). DSS indicates danger to self score; DOS, danger to others score; GDS, grave disability score; TRIAD, Three Ratings of Involuntary Admissibility; CGR, Clinician’s Global Rating.

[†] $P < .001$.

[‡] $P < .05$.