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Eric B. Elbogen
University of Nebraska - Lincoln, elbogen@unlserve.unl.edu

Alan J. Tomkins
University of Nebraska, atomkins@nebraska.edu

Antara P. Pothuloori
University of Nebraska

Mario Scalora
University of Nebraska - Lincoln, mscalora1@unl.edu

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REGULAR ARTICLE

Documentation of Violence Risk Information in Psychiatric Hospital Patient Charts: An Empirical Examination

Eric B. Elbogen, PhD, MLS, Alan J. Tomkins, PhD, JD, Antara P. Pothuloori, BA, and Mario J. Scalora, PhD

Studies have identified risk factors that show a strong association with violent behavior in psychiatric populations. Yet, little research has been conducted on the documentation of violence risk information in actual clinical practice, despite the relevance of such documentation to risk assessment liability and to conducting effective risk management. In this study, the documentation of cues of risk for violence were examined in psychiatric settings. Patient charts (n = 283) in four psychiatric settings were reviewed for documentation of violence risk information summarized in the MacArthur Violence Risk Assessment Study. The results revealed that particular patient and institutional variables influenced documentation practices. The presence of personality disorder, for example, predicted greater documentation of cues of violence risk, regardless of clinical setting. These findings have medicolegal implications for risk assessment liability and clinical implications for optimizing risk management in psychiatric practice.

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Psychiatrists and other mental health professionals working with mentally disordered patients manage and assess the risk of violence regularly, especially in forensic settings.[1] A vast body of clinical research literature seeking to improve the accuracy of risk assessment has emerged in the past 20 years.[2,3] This research intended to establish empirically validated violence risk factors,[4] a number of which were summarized in the MacArthur Violence Risk Assessment Study.[5] Based on these factors, researchers have sought to develop actuarial risk assessment tools for clinical forensic practice.[6,7] However, less attention has been devoted to how violence risk assessment and risk management are actually performed.[8,9] In particular, few studies have examined the daily process of documentation in violence risk assessment in psychiatric settings.

Documentation of key risk data is critical for liability purposes. A lawsuit may be brought months, or even years, after actual hospitalization, and given the limitations of human memory, records are necessary components in determining liability.[10] Thorough record-keeping documenting that clinicians reasonably attempted to gather the relevant information for risk assessment significantly limits exposure to liability.[11] Beck writes that "documentation of efforts to provide an average standard of care and exercise reasonable judgment is recommended as the best means to avoid malpractice suits" (Ref. 12, p 695).

Indeed, some courts have explicitly cited documentation as a key component in determining the professional standard of care for assessing dangerousness in psychiatric hospital settings.[13] For example, in *Jablonski v. U.S.*,[14] a Veterans Administration psychiatrist was held liable for failing to obtain the medical and psychiatric history of a mental patient who later killed his girlfriend. The court in *Littleton v.*

Dr. Elbogen is a Research Fellow, Department of Psychiatry, Duke University Medical Center, Durham, NC. Dr. Tomkins is Director of the University of Nebraska Public Policy Center, Lincoln, NE. Ms. Pothuloori was an undergraduate in the Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE, at the time this manuscript was prepared. Dr. Scalora is Assistant Professor of Law/Psychology in the Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE. Dr. Elbogen was supported as a predoctoral fellow by NIMH Training Grant 5T32MH16156 during the preparation of the manuscript. Address correspondence to: Eric B. Elbogen, PhD, MLS, Box 3071, Duke University Medical Center, Durham, NC 27710. E-mail: eelbogen@psych.mc.duke.edu

Good Samaritan Hospital and Health Center additionally stated that dangerousness assessments must be made "in light of the present day scientific knowledge in that specialty."[15] Commentators have noted and analyzed several legal cases in which the courts discuss the relevance and importance of psychiatrists' and other mental health professionals' obtaining and documenting certain types of risk information when assessing dangerousness.[10,12]

In addition to liability concerns, proper documentation is also necessary for proper risk management: "The quality of any [violence risk assessment] decision can only be as good as the information on which it is based. . . ."[6] Commentators have noted that documentation of critical risk data is key to optimizing prediction and management of violence in psychiatric and forensic settings.[16] Recently, researchers demonstrated that a single training session with clinical staff leads to significant improvement in risk-of-violence documentation with no extra time, resources, or paperwork and with true multidisciplinary involvement.[17] Similarly, examining documentation is a necessary part of implementing of state-of-the-art violence risk assessment tools that have emerged in the past decade. Administration of instruments such as the Psychopathy Checklist (PCL)[18] and the Violence Risk Appraisal Guide (VRAG)[6] depend in part on access to detailed case history information including but not limited to criminal history, diagnosis, history of violence, and course of hospitalization. Thus, newly developed risk assessment measures require thorough documentation of risk information.

However, little is known about how information regarding the risk of violence is documented in actual clinical practice. With respect to suicide risk management, Malone *et al.*[19] found that history of suicide was often not documented for suicidal patients and that patient characteristics, such as presence of personality disorder, influenced documentation of risk factors for suicidal behavior. Do the patient's characteristics influence documentation of violence risk information in a corresponding manner? If so, what patient variables seem to affect documentation practices, and in what ways? Institutional setting may also affect documentation for assessment of violence risk.[9] If this is the case, how might institutional setting affect documentation of violence risk information? Are clinicians documenting risk data systematically across different settings? The purpose of this study was to resolve these questions and to investigate empirically the clinical documentation of information related to risk of violence in psychiatric settings.

Methods

Setting

This study was conducted in Lincoln, Nebraska (population 250,000), and involved four inpatient psychiatric settings: acute, chronic, crisis, and forensic. The acute, chronic, and forensic hospitals are located in a 240-bed, state-operated psychiatric facility that serves most of the severely mentally ill patients in Nebraska and surrounding states. Half of the facility's beds are housed in the forensic hospital where evaluation and treatment services are provided for adults found Not Responsible by Reason of Insanity and Incompetent to Stand Trial as well as civilly committed sex offenders. Nonforensic adult patients who are civilly committed are first stabilized in the 40-bed acute-care hospital (average length of stay, 68 days). Those nonforensic adult patients who need more intensive care are treated at the 40-bed chronic care hospital, which offers extensive psychosocial rehabilitation for long-term patients. The county crisis center is located within the local community mental health center and is a 15-bed facility that serves as the initial gateway for longer-term inpatient mental health services. Patients at risk to harm themselves or others are brought to the crisis center for evaluation of the appropriateness of civil commitment. The crisis center receives more than 50 admissions per month, with an average length of stay of 12 days. Patients are discharged to the community or transferred to other inpatient facilities, typically the state hospital.

For statistical analysis, each facility was categorized by location, type of population, and patient legal status at admission. With respect to location, each facility was labeled as either a crisis or state hospital facility. Type of population was characterized as either acute (defined as average length of stay less than three months) or chronic (more than three months' average length of stay). By such definitions, the crisis center and acute unit were defined as acute whereas the chronic and forensic units were considered chronic. Finally, legal status designating type of commitment was divided into civil and criminal. All

facilities except for the forensic units were classified in the civil category.

Procedure

Approval to conduct this research was obtained from the University of Nebraska-Lincoln Institutional Review Board. Privacy concerns were included in the protocol for review of the archival data. Research assistants retrospectively rated documented information routinely collected on patient charts during the provision of clinical care. Although there was no assurance that all the information available for a given patient would be included on the patient's chart, it was assumed that most of the information available would be reflected in the main reports. A cue of risk for violence was rated as documented if any mention of the cue was made in the main reports in the patient's chart. Research assistants examined clinical staff reports in patients' medical records, which are those records on charts that are typically available to staff while the patient is being treated in the facility. Staff reports included psychiatrists' admission and discharge summaries, discharge information sheets, social work reports, nursing assessments, and psychology reports.

Independent variables in this study included 14 variables that were always documented, including demographics (age, gender, marital status, ethnicity), symptoms at initial examination (suicidal, homicidal, both suicidal and homicidal, psychosis), and clinical variables (substance abuse, psychotic disorder, personality disorder), as well as variables based on contextual dimensions described earlier (chronic versus acute, criminal versus civil, and crisis versus state hospital).

Dependent variables collected in this study were those identified by the MacArthur Violence Risk Assessment Study as possible risk factors associated with violence.[5] This included several risk domains, including social history (family history, family deviance, work history, educational history, prior hospitalizations, history of treatment compliance), violence history (history of arrests, history of incarcerations, self-reported violence, violence toward self), contextual (perceived stress, living arrangements, activities of daily living, perceived support, social networks, means for violence, e.g., access to weapons), clinical (Axis I diagnosis, delusions, hallucinations, symptom severity, violent fantasies, Axis II diagnosis, substance abuse), and dispositional description and test results (personality style, anger, impulsiveness, psychopathy, IQ, and neurological impairment).

Patients' charts ($n = 283$) were reviewed for documentation of cues of risk for violence in four psychiatric settings. One hundred thirty charts were randomly selected from a list of patients discharged between January 1994 and January 1998 from the acute ($n = 65$), chronic ($n = 32$), and forensic ($n = 33$) hospitals. Patients' chart ratings at the state hospital facility were made by four research assistants who achieved an inter-rater reliability of $\kappa = .77$ before starting the chart reviews, indicating a good level of inter-rater reliability. At the county crisis center, 153 charts were randomly selected from a list of patients discharged from the crisis center between January 1994 and January 1998. Patient charts at the crisis center were rated by four research assistants who achieved an inter-rater reliability of $\kappa = .87$ before the chart reviews were begun, indicating a very good level of inter-rater reliability.

Results

Descriptive analyses were used to examine demographic and clinical characteristics of the patients whose charts were examined. Of those charts randomly selected, the sample was 66.1 percent male and had a mean age of 35.7 years. Ethnic breakdown was 85 percent white, 8.5 percent African-American, 1.8 percent Hispanic, 2.9 percent Asian, and 1.5 percent Native American, generally representative of the general population in the jurisdiction. Regarding marital status, nearly half the sample (47.3%) had never been married, 15.3 percent were married, 8 percent were separated, and 27.4 percent were divorced. With respect to clinical characteristics, 35.3 percent had a diagnosis of psychosis (compared with 64.7% with mood disorders), 53.7 percent had a diagnosis of substance abuse, and 48.4 percent had a diagnosis of some type of Axis II personality disorder. Finally, we examined problems present at admission: violence (29.0% of the sample), psychosis (27.6%), suicidality (60.4%), and violence plus suicidality (17.0%).

Regression analyses were used to determine whether demographic variables, problems at admission, clinical assessment, or clinical setting predicted total documentation of information regarding risk of violence (Table 1). Results of the analysis showed that the 14 selected variables accounted for 45 per-

Table 1 Regression Analysis of Total Documentation of Violence Risk Cues

Predictor	β	p
Demographics		
Age in years	−.050	.312
Gender (M/F)	−.054	.283
Married? (no/yes)	−.039	.439
Caucasian? (no/yes)	−.020	.683
Presenting problem		
Psychotic at admission? (no/yes)	−.024	.713
Suicidal at admission? (no/yes)	.107	.093
Violent and Suicidal? (no/yes)	−.048	.762
Violence at admission? (no/yes)	−.024	.878
Clinical diagnosis		
Substance abuse diagnosis? (no/yes)	−.029	.563
Psychotic diagnosis? (no/yes)	−.048	.483
Personality disorder? (no/yes)	.194	.001*
Clinical setting		
Population (chronic/acute)	.022	.785
Legal status (criminal/civil)	−.012	.870
Location (crisis/state hospital)	.639	.001*

* $p < .001$.

cent of the variance in total documentation (R^2 = .453, p = .000). In terms of those specific variables that significantly predicted documentation, the analysis showed that state hospital charts contained much greater documentation of violence risk factors than crisis center charts (β = .639, p = .001). However, the analysis also showed that, when accounting for setting variables, the presence of a personality disorder predicted significantly increased documentation (β = .194, p = .001), suggesting that this finding is general across all four hospital facilities studied. Being suicidal at admission also tended to lead to recording of more violence risk factors; however, this trend was not statistically significant (β = .107, p = .093). Neither a patient's being only violent nor being violent and suicidal at admission was related to total documentation of violence risk factors.

Regression analyses were used to determine the effect of the 14 variables on documentation in five cue domains of the MacArthur Risk Assessment Study: clinical, contextual, violence, social, and testing (Table 2). In the clinical domain, only the presence of a personality disorder increased documentation (β = .263, p = .001). Documentation of contextual information was positively influenced by suicidality identified at admission (β = .189, p = .013) and by the chart's being from the state hospital (β = .503, p = .001).

The 14 variables accounted for 58 percent of the variance in documentation of violence history factors (R^2 = .576, p = .001). Although charts of males contained more history of violence (β = −.198, p = .001), documentation of violence history was mainly influenced by clinical setting. Chronic unit charts showed more documentation of violence history (β = −.159, p = .023) than acute units, and the forensic unit showed more documentation in this

Table 2 Relationship of Patient and Setting Variables to Cue Domain Documentation

	Clinical		Contextual		Violence History		Social History		Testing	
Predictor	β	p	β	p	β	p	β	p	β	p
Demographics										
Age in years	−.10	.883	−.042	.484	−.037	.396	−.073	.222	.018	.765
Gender (M/F)	.028	.667	.028	.641	−.198	.001*	.017	.777	.044	.466
Married	−.008	.906	−.015	.808	−.035	.433	−.043	.473	−.018	.765
White	.002	.977	−.003	.955	.018	.669	−.077	.183	−.004	.939
Presenting problem										
Psychotic	.044	.595	.006	.939	.014	.806	−.048	.528	−.138	.076
Suicidal only	.109	.184	.189	.013†	.031	.574	.046	.546	−.030	.695
Violence only	−.116	.571	.052	.783	.115	.413	−.206	.277	.111	.564
Violent and suicidal	−.125	.540	−.022	.906	.070	.614	−.208	.268	.201	.290
Clinical diagnosis										
Substance abuse	−.047	.469	.004	.947	−.001	.981	−.015	.807	−.058	.342
Thought disorder	.024	.784	−.076	.349	−.081	.176	.047	.559	−.072	.382
Personality disorder	.263	.001*	.062	.333	.086	.068	.067	.296	.147	.023†
Clinical setting										
Chronic/acute	.002	.983	−.010	.916	−.159	.023†	.029	.759	−.263	.006†
Criminal/civil	−.074	.429	.103	.238	−.266	.001*	.175	.044†	.205	.020†
Crisis/state hospital	−.045	.603	.503	.001*	.654	.001*	.478	.001*	.321	−.001*

* $p < .001$. † $p < .05$.

area ($\beta = -.266$, $p = .000$) than did other units. If the chart was a crisis chart, documentation of violence was significantly less ($\beta = .654$, $p = .001$). The presence of a personality disorder tended to increase documentation of violence history, but not significantly ($\beta = -.086$, $p = .068$). Regarding social history information, charts from the criminal facility contained significantly less documentation ($\beta = .175$, $p = .044$) than did civil facility charts. There was also less documentation if the patient was a crisis patient ($\beta = .478$, $p = .001$).

Correspondingly, charts in chronic ($\beta = -.263$, $p = .006$) and civil ($\beta = .205$, $p = .020$) settings showed greater documentation of testing information. Further, crisis charts contained significantly less testing history documentation ($\beta = .321$, $p = .001$), but information increased when the patient had a personality disorder ($\beta = .147$, $p = .023$). In addition, if a patient had psychosis at admission, there was a trend toward less documentation of testing ($\beta = .138$, $p = .076$) that approached, but did not achieve, statistical significance.

Discussion

Overall, the results suggest that institutional and intrapatient variables affect documentation of violence risk information. With respect to institutional variables, the current study indicates that social and violence history data are less likely to be documented in crisis centers than in other longer-term psychiatric settings. Because patients in crisis centers are often admitted because of the harm they pose to themselves or others, an intake violence risk assessment may be hurried, or information may simply not yet be available. Patients may also be evaluated during acute psychosis and thereby be unreliable historians. Gardner and colleagues[20] additionally note "a patient fearing commitment may be reluctant to volunteer reports of violence" (Ref. 20, p 602). Finally, patients may have no family members to contact and corroborate self-reported violence histories. Although risk assessment is vital to the discharge disposition of patients in the crisis center, the findings suggest that clinicians in these settings may lack important risk information, especially compared with their counterparts in other contexts.

This suggests that the standard of care for assessment of dangerousness should vary as a function of the setting under which the evaluation occurs, an implication heretofore not considered explicitly by the courts in the United States. In the realm of tort liability, clinicians have been held liable for making an insufficient effort to gather and document information that would make an accurate prediction possible.[10,13,14,21] Generally courts find negligence when clinicians fail to document what can be acquired within reason.[12] However, the present findings suggest that risk information is differentially available in different settings: critical risk data that may be reasonable for a clinician working in a longer-term setting to obtain may be unreasonable for a crisis clinician to obtain. Thus, the results indicate that because dangerousness assessments are dependent on the conditions under which they take place,[9] liability standards for psychiatrists and other mental health professionals arguably ought to be formulated accordingly.

The findings regarding institutional variables have implications for implementation of new risk-assessment technology. Without appropriate and thorough documentation of such factors for each patient, complete utility cannot be realized and newly developed risk-assessment devices will be inadequate. Certain clinicians may be hesitant to use new risk-assessment tools because of limitations of information. For example, there was more documentation of violence risk information in total in criminal compared with civil facilities, probably because the former also tended to have greater communication with the criminal justice system than the latter.[22] For these reasons, researchers may need to match risk measures with the demands of specific clinical contexts. Otherwise, these measures may not have clinical utility in contexts in which documentation of key risk information is less likely to be available.[20]

The results also indicate that interpatient variables influenced the documentation process. The presence of a personality disorder appeared to increase total documentation of violence risk information and specifically documentation of clinical and dispositional and testing information. This result is similar to findings in other research showing an effect of personality disorder on documentation of suicide history. As discussed by Malone and colleagues,[19] this suggests that documentation practice is not consistent from patient to patient. Further, charts of male patients showed greater documentation of violence history risk factors. Because setting was controlled for in the regression analysis, these findings could be generalized across the clinical settings in the current study.

Research exists that identifies a relationship between personality disorders and violence.[23] However, does this imply that clinicians should differentially document risk information for patients with and without personality disorders? Certainly, clinicians may have more clinical concern for patients with Axis II disorders and indeed, there is literature suggesting that these patients occupy a disproportionate amount of clinician time and energy.[24] Further, psychopathy, which is conceptually similar to antisocial personality disorder, has shown strong associations with violence in different populations.[6,18] However, nonconfirming data are just as critical for improving the accuracy of clinical decision-making in general.[25] In addition, although males are in general more violent than females, it is unclear that this gender gap in violence exists in psychiatric populations.[26] Indeed, a number of studies have shown equal levels of violence and in some cases greater violence in females than in males when measured in psychiatric populations.[27] With respect to the findings in the present study, future analysis is necessary to determine whether it is good policy and procedure to document in ways that may be considered unsystematic.

A limitation of this study concerns its use of one site for each psychiatric setting. It is possible that findings rely on procedures specific to the particular crisis center and state hospital settings investigated in this study. Thus, the generalizability may be limited, and further research is necessary to determine whether the same pattern of documentation emerges in different geographic locations. It is also important to note that the MacArthur Study eventually used a subset of the risk cues studied herein to construct an actuarial model.[28] As the data in this study were collected and analyzed before construction of this model, it was not possible to examine the effect of context and characteristics of patients on documentation of violence risk factors used in the final actuarial model proposed by the MacArthur study. Thus, future research should investigate whether the kinds of variables researchers use in actuarial formulas are typically documented in psychiatric hospital charts. In sum, to obtain a clearer and more comprehensive understanding of documentation of risk information, future research should be conducted at different research sites, using additional and more direct methodology, and examining specifically the documentation needed for risk information used in actuarial measures.

Future research should consider gaining a clearer understanding of how documentation affects clinical decision making. Investigations of corrective measures through the use of structured procedures could improve documentation and ensure that sufficient information is available to meet the required standards of care. In addition, future research could identify how logistical hurdles relate to documentation and determine ways to overcome limitations. For example, given the current environment of managed care, how realistic is it to obtain all risk factors needed for actuarial formulas?[30] Thus, greater attention should be given to how clinicians prioritize obtaining necessary information to make real-world clinical decisions, as opposed to obtaining all empirically validated information necessary to use actuarial tools. Some commentators have noted that clinicians rely on dynamic risk factor variables, even though much of the research has been focused on static variables.[31] Further, given limited time to make clinical decisions in many contexts, it may not be feasible to complete a thorough search for the factors necessary for some actuarial measures. In the end, more research is needed to understand how documentation occurs in psychiatric practice and the clinical and forensic problems involved in the documentation of cues for risk of violence in psychiatric hospitals.

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