

Dangerousness Commitments: Indices of Future Violence Potential?

Robert A. Zeiss, PhD, Elizabeth Decker Tanke, PhD, Howard H. Fenn, MD, and Jerome A. Yesavage, MD

This study examines the accuracy of long-term clinical predictions of dangerousness among psychiatric inpatients and explores factors influencing the levels of such accuracy. Hospital and state criminal history records of all psychiatric patients (N = 31) for whom, during a four-year period, treatment staff pursued extended civil commitments based on dangerousness under the Postcertification for the Imminently Dangerous statute (California Welfare and Institutions Code § 5300) were reviewed. A matched control group consisted of 31 patients who had been placed on 14-Day Certifications for Dangerousness to Others, but who were not subsequently placed on 180-Day Postcertifications. Sixty-one percent of patients in the postcertification group engaged in documented physically assaultive behavior during the extended one- to five-year follow-up period, compared with 26 percent of patients in the matched control group, suggesting that inclusion in the extended commitment group was indicative of greater long-term potential for assault. Differences in assaultiveness did not emerge during the first year of followup, but became clear and significant over subsequent years. Accuracy of prediction differed as a function of patient ethnic group.

After a number of early studies demonstrating that clinical prediction of future violence by psychiatric patients is inherently difficult, if not impossible,¹⁻³ a review by Monahan⁴ paved the way for a “second generation” of violence predic-

tion research. This later research refocused empirical questions away from degree of accuracy toward more complex questions including identifying variables that correlate with or predict assaultive behavior⁵⁻¹² and examining the models clinicians use in making predictions or decisions.¹³ In his review of this second generation of prediction research, Otto¹⁴ reached a conclusion more optimistic than Monahan's,² suggesting that “at least one in two short-term predictions of dangerous behavior are accurate” and that even better predictions are feasible if non-traditional predictors are used and if

Drs. Zeiss, Fenn, and Yesavage are affiliated with the Veterans Affairs Palo Alto Health Care System. Dr. Tanke is affiliated with Applied Decision Research, Mountain View, CA. This work was supported by the Department of Veterans Affairs. Portions of this paper were presented as work in progress at the 1989 and 1990 annual meetings of the American Academy of Psychiatry and the Law. Address correspondence to: Robert A. Zeiss, PhD, VA Palo Alto Health Care System (5C4), 3801 Miranda Ave., Palo Alto, CA 94304.

specific subsets of the mentally ill population are considered.

More recently, Lidz *et al.*⁹ examined the accuracy of predictions of violence over a longer-term, six-month follow-up period. In their sample, 53 percent of those predicted to be violent had at least one violent episode, as compared with 37 percent of those in a matched comparison group.

In actual practice, clinicians do not have the luxury of waiting for more definitive research results before making decisions involving predictions of violence.¹⁴ There are many situations in which a decision, such as whether to initiate an extended involuntary commitment on the basis of potential violent behavior, must be made with limited information. Such clinical decisions are generally based on available, albeit often limited, data. Factors considered might include history of violence, explicitness of threats, severity of past violence, severity of threatened violence, and cognitive and psychiatric status. Because the pursuit of extended commitment requires substantial effort by the treatment team, these decisions are not taken lightly. Thus, decisions to pursue extended civil commitments can be conceptualized as *in vivo* indicators of perceived dangerousness and thereby as predictors of future potential for violence.¹⁴ While these clinical decisions can be affected by external or extraneous factors, they do, in fact, represent one measure of clinician concern about future potential for violence or dangerousness.

This study was designed to examine the predictive accuracy of such decisions

to initiate 180-Day Postcertifications for the Imminently Dangerous in a large Veterans Affairs (VA) medical center. In California, these postcertifications allow involuntary confinement for 180 days for the psychiatric patient who "has attempted, inflicted, or made a serious threat of substantial physical harm upon the person of another" (California Welfare and Institutions Code (WIC) § 5300). The postcertification follows a 72-Hour Hold (WIC § 5150) and a 14-Day Certification (WIC § 5250) in the commitment process for dangerousness and is the only means available for hospitalizing a patient involuntarily for more than 17 days on the basis of perceived dangerousness.

We hypothesized (1) that patients placed on extended commitments for dangerousness have a substantial likelihood of future violence and that the incidence of violence committed by these patients would be greater than for control patients. We also predicted (2) that the extended hospitalizations allowed by such commitments would reduce the rate of violence, but that this beneficial effect would dissipate with time. For the purposes of this study, we compared the group for whom 180-Day Postcertifications were sought (i.e., those patients perceived by treating clinicians to have high likelihood of future violence) with a control group that initially had been committed for dangerousness to others but for whom the extended commitments for dangerousness were not sought. Thus, the control group was not a random sample, but rather a group of patients presenting initial evidence of dangerousness who later were deemed not to require extended

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involuntary treatment. We expected that there would be violence occurring among these patients, but at a substantially lower rate than among the 180-Day Postcertification group.

Method

Subjects ($N = 31$) were all of the patients over a four-year period at the VA Medical Center, Palo Alto, CA, for whom clinicians had initiated 180-Day Postcertifications for the Imminently Dangerous because these patients could not be effectively treated during a briefer civil commitment or voluntary hospital stay. This medical center is a tertiary care hospital in psychiatry and, at the time of this study, had 400 psychiatric beds and the only locked VA psychiatric beds in northern California. These 31 patients were identified from about 7,000 admissions to locked psychiatric units and about 4,800 admissions to open psychiatric units.

Of the 31 patients for whom extended commitments were initiated, only 21 actually were put on 180-Day Postcertifications. Petitions for two of them were dismissed by the court, while six petitions were ultimately dropped by the treating doctors prior to the hearing. One patient eloped prior to his hearing, and legal outcome could not be determined from the medical record of the remaining patient. Future violence was not examined differentially for these subgroups, because the groups were too small for meaningful statistical analyses.

Each subject was paired with a matched control subject who had been on a 14-Day Certification as Dangerous to Others but who had not progressed to a

lengthier commitment on the grounds of dangerousness. Control patients did not represent a random sample; they had been, like the index group, admitted with evidence of threatening or violent behavior, but were not perceived to require extended involuntary treatment. Control subjects were selected on the basis of (1) having been admitted to the same ward as close as possible in time to the research subject (before or after was determined randomly); (2) being the same sex as the research subject; and (3) identical *initial* legal status (i.e., 72-Hour Hold and 14-Day Certification as Dangerous to Others, but no subsequent commitment for dangerousness).

All medical records were examined for a follow-up period ranging from one to five years, depending on the filing date for the commitment. In addition, criminal histories ("rap sheets") from the California Department of Justice were reviewed in an effort to identify significant violence not reflected in medical records. Data from the two sources were combined for the analyses that follow.

The terms "violence" and "assault" are used interchangeably to refer to aggressive acts of physical contact between a patient and a victim or to criminal acts in which victims are placed in serious jeopardy (e.g., armed robbery, assault, kidnapping). Verbal and behavioral threats were *not* considered violent acts for the purpose of this study.

Results

Subjects The subjects and their controls in this study were predominantly young (mean = 35.4 years, $SD = 10.0$),

never married (54%), and male (97%), with a high school education (mean = 12.7 years, SD = 1.8). Overall, 52 percent of patients received diagnoses of schizophrenia, while 32 percent fell into bipolar or schizoaffective categories. Because they were on extended commitments, patients in the 180-Day group experienced significantly longer index hospitalizations than the control group (mean = 150.2 days, SD = 83.6 versus mean = 53.5 days, SD = 52.5; $t(30) = 5.34, p < .001$). However, the number of subsequent hospitalizations did not differ for the two groups (180-Day group: mean = 3.9, SD = 3.7; 14-Day group: mean = 2.7, SD = 3.3).

Ethnic Background The largest proportion were of European-Caucasian background (56%), but other ethnic/racial groups were also well represented, particularly in the 180-Day Postcertification group in which nonwhites outnumbered whites 18 to 13. Twenty-four percent of subjects were African-American, while another 10 percent were of Latino background. Six percent identified themselves as Asian-American or Pacific Islander. When the minority groups were combined, the difference in representation of minorities between the 180-Day Postcertification group and the 14-Day group was statistically significant ($\chi^2(1) = 4.20, p < .05$). Economic status was not specifically assessed in this predominantly low-income group. There were no other statistically significant differences between the groups on demographic variables.

Violence Outcome In the 180-Day Postcertification group, 61 percent of the

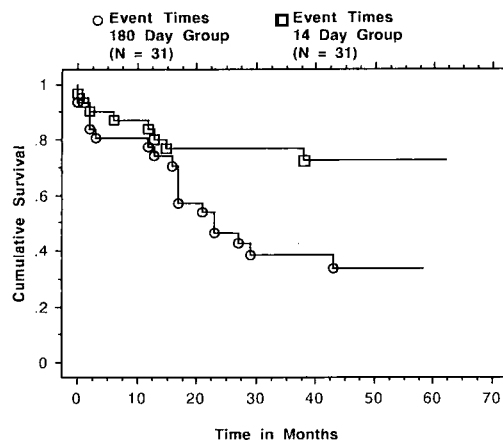


Figure 1. Kaplan-Meier cumulative survival plot for months to assault.

patients completed at least one assault during the followup period. In the control group, only 26 percent of the patients demonstrated any assault during the followup. This difference was statistically significant ($\chi^2(1) = 6.56, p < .05$). Although a higher proportion of the 180-Day group were assaultive, those patients who were assaultive in the two groups had similar numbers of assaults, with a mean of 3.6 for the 180-Day group and 3.0 for the controls.

An alternative way to examine outcome data is to look at time to the first assault within each group. Figure 1 presents the Kaplan-Meier Survival Analysis for the two groups, demonstrating dramatically different times to first assault for the 180-Day and the 14-Day patient groups. The survival analysis charts those subjects who have not yet committed a violent act (i.e., the "survivors" of the analysis). Thus, we start the chart with both groups showing 1.0 or 100 percent survival. A subject who commits a violent act is eliminated from the graph and

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further incidents by that subject are not charted. Each of these violent incidents is indicated on the chart as Event Time. Although the proportions who were assaultive in each of the two groups were low and similar during the first year of followup, they began to diverge dramatically in later years. A McNemar Test for Correlated Proportions,¹⁵ used to test differences in rates of survival, was significant ($\chi^2 (1) = 5.26, p < .05$).

Violence Outcome by Ethnic Background Because there was a significant difference in the racial composition of the two groups, incidence of violence was also examined separately for white and minority patients. White patients in the two groups did not differ significantly in the incidence of assaultiveness during the follow-up period, with 4 of 13 patients in the 180-Day group and 6 of 22 patients in the 14-Day group engaging in documented assault. For minorities, however, inclusion in the 180-Day group as opposed to the 14-Day group was differentially predictive of assaultiveness during the follow-up period ($\chi^2 (1) = 7.17, p < .01$). Among these patients, 15 of 18 of those in the 180-Day group and 2 of 9 of those in the 14-Day group engaged in documented assault.

Discussion

This study shows that practicing clinicians were able to identify a subset of psychiatric inpatients who were likely to commit future acts of violence. The finding that 61 percent of patients with identified serious violence potential committed physical assaults (albeit not generally of a serious nature) contrasts

with lower figures reported in previous research,^{10, 16} but is similar to that found by Lidz *et al.*⁹ Both the Lidz *et al.* study and the current one reviewed violent behavior over an extended time frame. Lidz *et al.* used a follow-up period of six months, while our patients were followed for a period ranging from one to five years.

We also found a relatively high level of accuracy in our 14-Day group where one may assume that clinicians were behaviorally indicating the absence of serious risk for immediate or near future assaultiveness; this prediction was accurate in 74 percent of cases throughout the entire followup. Although clinical variables related to *in vivo* clinical prediction remain to be examined, it is clear that the level of predictive accuracy in these clinical situations was substantially greater than the figures of 25 to 28 percent that have been reported in some studies with a shorter time frame.^{10, 16} Examination of Figure 1 suggests that psychiatric hospitalization for extended periods may reduce the risk of violence in the short term. Thus, differential rates are not found immediately for the two groups, but emerge over time with extended followup.

Since it has been documented that violent acts, even within an inpatient setting, are underreported,^{17, 18} it is likely that some violence did occur in both groups that was not recorded in the records available to us. However, it is likely that all *serious* violence was reported and that underreported violent incidents were randomly distributed among the study groups.

It is also possible that some patients in

the 180-Day group who did not engage in documented assaults were placed on extended commitments because of threats of serious violence that actually had a low probability of occurring. Serious explicit threats (e.g., a patient's threat to blow up a government building on his upcoming birthday) present a difficult clinical situation in which clinicians may initiate commitments despite beliefs that the feared events have a low probability of occurring.

Although absolute numbers are small, it is noteworthy that indicators of future assaultiveness were more accurate for minorities than for white patients. This is in contrast to previous research investigating shorter time frames in which actual violence by majority and minority patients did not differ.^{19, 20} Whether this perplexing finding represents a real difference in predictability, lower base rates of assaultiveness among the white patient group, higher rates of documentation of assaultiveness for minorities, or some other factor remains a question for further study.

There are a number of dimensions that may characterize decisions to hospitalize patients on the basis of predicted dangerousness.²¹ For example, many of these patients had engaged in violent behavior frequently. This probably led to a high degree of certainty that such behavior would recur, even though the behavior caused minimal injury to victims. In other cases, the likelihood of violent behavior was low (as in a threat to "do the post office thing"), but the potential consequences of the behavior, if it did occur, were extremely serious. Thus, these legal

decisions are complex and reflect more than a simple assessment of the probability of a behavior occurring.

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