

Comment on "Tardive Dyskinesia Circa 2006"

TO THE EDITOR: Risk assessment of tardive dyskinesia might be further strengthened by considering its severity and impact on quality of life. Descriptive data from two clinical trials (1, 2) are used to illustrate the relationship of Quality of Life Interview ratings and tardive dyskinesia levels documented by combined average scores on the three global ratings of the Abnormal Involuntary Movement Scale.

Using 1,275 ratings from 423 refractory schizophrenia patients (1) and observations when no tardive dyskinesia was present as a reference point (mean Quality of Life Interview score=43.3 [SD=17.1]), *mild* tardive dyskinesia was associated with a 3.6-point lower (−8%) mean Quality of Life Interview rating, and *moderate* tardive dyskinesia was associated with a 6.9-point lower (−16%) mean Quality of Life Interview rating. After multivariate adjustment for differences in concurrent symptoms (total Positive and Negative Syndrome Scale scores), differences in adjusted means reversed direction. Adverse effects of tardive dyskinesia on ratings of quality of life were thus not independent of the effect of symptom severity in this cohort.

Data from another trial (2) included 826 observations from 309 patients with schizophrenia. As compared with observations when no tardive dyskinesia was present (mean Quality of Life Interview score=47.2 [SD=16.7]), *mild* tardive dyskinesia was associated with a 4.0-point lower (−8%) average Quality of Life Interview rating, and *moderate* tardive dyskinesia was associated with a 2.2-point (−4.5%) lower rating. After adjusting for symptoms of schizophrenia and other neurological side effects, these differences were reduced only slightly to 3.6- and 1.8-point lower ratings (−7.4% and −3.6%, respectively).

These data show average net reduction of quality of life associated with mild or moderate tardive dyskinesia ranging from 0% (based on the risk-adjusted analyses in the first cohort) to −16% (without adjustment). John M. Kane, M.D., (3) suggests a 3%–5% annual incidence of tardive dyskinesia in patients with first generation antipsychotics and 1% with newer medications. The attributable risk of tardive dyskinesia because of first generation antipsychotics would thus be 2%–4% per year. Multiplying the attributable risk by the reductions in quality of life estimated above, one can calculate average annual tardive dyskinesia-related reductions in quality of life attributable to first generation antipsychotics. This risk would be estimated to range from 0% (based on the risk-adjusted analysis of the first cohort) to a maximum of −0.64% (i.e., 0.04 attributable risk of tardive dyskinesia multiplied by −16% reduction in Quality of Life Interview scores). These analyses are limited, however, by the absence of data on severe tardive dyskinesia.

An upper bound estimate of the average risk of decline in Quality of Life Interview scores because of mild or moderate tardive dyskinesia with first generation antipsychotics may thus be less than 1%. Clinical decision making must be based on individual patient circumstances and preferences, rather than on average risk calculations. However, side effect risks are central to antipsychotic treatment decisions, and it may be informative to use quantitative methods to evaluate their net effects on measures of well-being.

References

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Dr. Kane Replies

TO THE EDITOR: Dr. Rosenheck makes an important point regarding evaluating the impact of adverse effect risk on clinical decision making and patient preference. It is important to recognize that any benefit risk calculation should ultimately be informed by both quality of life and cost considerations (although he does not directly raise the latter). However, it would be important to consider where in the range of potential Quality of Life Interview scores the patients participating in these studies fall. Would tardive dyskinesia be expected to have the same impact at any level in the range of possible Quality of Life Interview scores? Would tardive dyskinesia in a successfully treated first-episode college student or recently employed individual have the same impact on quality of life as a case of tardive dyskinesia occurring in a chronic and partially responsive patient (the population generally included in the studies to which he refers)? It is also important to recognize that some patients who have tardive dyskinesia are not fully aware of the movements and might lack insight into their potential impact in social or vocational settings.

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Violence and Mandated Treatment: Future Considerations

TO THE EDITOR: I read with great interest the article by Jeffrey W. Swanson, Ph.D., et al. entitled "Violence and Leveraged Community Treatment for Persons with Mental Disorders" in the August 2006 edition of the *Journal* (1). In this article, the authors attempted to scientifically establish associations between those mentally ill individuals who have violent histories and the decision to implement mandated interventions.

This topic becomes particularly important in the current days of random violence, along with the increased public awareness and participation in issues relating to mental illness (2). I commend Dr. Swanson and colleagues for investigating not simply the connection between mental illness and mandated interventions, but also for considering various other demographic and clinical factors. These factors were noted to also be associated with the determination to recommend these interventions.

My initial concern is that social and legal mandates are being thought of as levers. This projects the impression that these mandates are being used to coerce an individual in a punitive manner. Instead, I believe it is important to remem-

ber that the goal of these mandate laws is ultimately to improve patient and community well being. Mandate laws aim to reduce patient violence by improving patient compliance and ensuring that the individuals most at risk for violent decompensation remain well compensated. It is also important to note that the application of these mandates to an individual patient is reliant upon the proof that the patient's violent behavior is a direct result of the patient's mental illness.

It has already been generally accepted among those in the psychiatric community that the combination of risk of violence and medication nonadherence strongly influences the decision to mandate treatment. However, there is a noted lack of information related to the outcome of implementing such mandated interventions (3). The question, therefore, still remains regarding the effectiveness of these measures in ultimately reducing violent behavior in the mentally ill.

This information is essential as a further topic of exploration. Without solid outcome measures, it becomes difficult to translate theory into practice. Statistical information could lay the foundation for the writing of protocols to be implemented in our daily clinical practice and may even be used to inform public policy.

References

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Dr. Swanson and Colleagues Reply

TO THE EDITOR: We appreciate Dr. Berkeley's thoughtful letter to the Editor regarding our article. As Dr. Berkeley correctly implies, the legislative intent of outpatient commitment and similar laws is not to authorize punitive interventions or coercion *per se*. Rather, it is to provide needed mental health services to certain severely mentally ill individuals who may otherwise go untreated to their detriment and that of the community. For example, New York's assisted outpatient treatment law (also known as Kendra's Law) requires the state to provide case management services and, more specifically, to "evaluate the conditions or needs of assisted outpatients, to take appropriate steps to address the needs of such individuals, and to ensure compliance with court orders (1)."

Additionally, as Dr. Berkeley suggests, whether mandated community treatment programs are practically effective in meeting their stated goals is a matter of some dispute, awaiting evidence from further research.

However, we do not agree with Dr. Berkeley that our use of the term "leverage," as applied to a broad array of treatment mandates from the social welfare and legal systems, necessarily "projects the impression that these mandates are being used to coerce an individual in a punitive manner."

First, we think that the use of some forms of leverage is better conceived as an offer being made to a person—an offer

that he or she can refuse and be no worse off than had the offer not been made—than as a punitive threat (2). Consider mental health courts, for example, where criminal defendants with mental illness are essentially offered the choice of participating in court-mandated community treatment versus accepting whatever sanction would normally be given by the criminal court.

Second, in our view, the degree of coerciveness associated with leveraged community treatment is properly an empirical question, rather than a matter of semantics. Studies show that some people, indeed, consider it coercive to condition benefits (such as housing or money) on treatment participation, but others do not. For some, coercion is a relative matter, compared with the prospect of involuntary hospitalization, and outpatient commitment may be seen as a far less restrictive alternative (3). Moreover, many people under involuntary outpatient commitment nevertheless do not consider this to be very limiting in their own daily experience, particularly if they do not also have other forms of leverage applied to them simultaneously (4). Still other individuals with mental illness do perceive some coercion in their personal experience with leveraged treatment, but nevertheless believe that such interventions are generally fair, effective, and personally beneficial to them (5–7).

Finally, we agree completely with Dr. Berkeley that "without solid outcome measures, it becomes difficult to translate theory into practice." Improving clinical practice by systematically studying outcomes, building evidence, and doing what works is a worthy goal and, in the area of violence risk management, perhaps a high-stakes endeavor.

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