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Of the Parens Patriae Commitment Power and Drug Treatment of Schizophrenia: Do the Benefits to the Patient Justify Involuntary Treatment?

by Eugene Z. DuBose, Jr.*

Last term, in O'Connor v. Donaldson,¹ the Supreme Court decided its first case concerning the rights of the mentally ill who are involuntarily committed to state mental hospitals. For those who expected a sweeping statement of rights, the Court's holding must have seemed exceedingly narrow: it stated only that the state could not constitutionally confine, against his will, one who, though perhaps mentally ill, was dangerous neither to himself nor to others and received no treatment in the hospital. The Court explicitly declined to address an important question hovering near, but not presented by, the case: "whether the state may compulsorily confine a non-dangerous, mentally ill person for the purpose of treatment."2

The concern of this Article is to suggest a legal framework for deciding that question and, by applying that analysis to a specific treatment for a certain mental illness—drug treatment of schizophrenia—to demonstrate the difficulty of establishing a case that any particular form of psychiatric treatment can validly serve as a justification, under what is usually termed the

^{*} Assistant Professor of Law, Northwestern University School of Law. There are a number of people to whom I must give credit for much of what is of value in this Article: my colleagues Mayer Freed and John P. Heinz, who were generous with their time and energy in criticizing an earlier draft of this Article; Dr. Norris Hansell, who will notice many ideas similar to those he propounded so eloquently in his 1974 Colloquium entitled, "General Psychiatry and Applications to Design of Services" at the Northwestern University Medical School, Department of Psychiatry; and my diligent research assistants, Sue Henry, Robert Merrick and Tina Yanow, all of the Class of 1976 at the Northwestern University School of Law, who persevered in the most tedious of tasks. But my greatest debt is to Dr. John M. Davis, Research Director of the Illinois Psychiatric Institute, who gave freely of his time, his facilities and his publications; I trust he will disagree vigorously with much of what I say and will forgive me for disregarding his better wisdom.

^{1. 422} U.S. 563 (1975).

^{2. 422} U.S. at 573.

parens patriae power of the state, for involuntary confinement.³ I have chosen drug treatment of schizophrenia for a number of reasons. First, it puts the case for involuntary treatment of the mentally ill in its most favorable light. It is a treatment (1) that knowledgeable psychiatrists agree is one of the most

The Supreme Court saw no need to deal with either of these rationales for commitment of the mentally ill. Since the jury had found Donaldson harmless, the confinement of dangerous persons was not at issue; and since the jury had found that Donaldson received no treatment, there was no reason to decide the parens patriae issue.

One might wonder why Judge Wisdom engaged in such an extensive analysis, since it is clear that the Supreme Court's narrower approach is quite adequate. The answer lies in the politics of decisionmaking in the Fifth Circuit. In December of 1972, a few weeks after the jury's verdict in the Donaldson case, lawyers argued a case, Wyatt v. Aderholt, 503 F.2d 1305 (5th Cir. 1974), which more clearly presented the right-to-treatment issues to the Fifth Circuit. In Wyatt, Judge Frank Johnson of the Middle District of Alabama had ordered the state of Alabama to restructure its entire mental health system so that those in the Alabama state hospitals who were committed under the state's parens patriae power would have at least some chance of receiving the treatment they were confined to get. See Wyatt v. Stickney, 344 F. Supp. 373 (M.D. Ala. 1972). The case stalled on appeal, and when the Donaldson case was decided some 16 months after the oral argument in Wyatt, 23 months after the filing of the Wyatt appeal, Wyatt was still undecided. The Fifth Circuit finally decided Wyatt in November of 1974. Was there no right to treatment for those in the Alabama hospitals as the appellants argued? "This contention," the court responded, again through Judge Wisdom, "is largely foreclosed by our decision, issued since the institution of this appeal, in Donaldson v. O'Connor" Wyatt v. Aderholt, 503 F.2d at 1312. It is fairly clear from this sequence that Wisdom, the only judge who sat on both panels, saw that the way to break the impasse in Wyatt, which in part necessarily turned on the question of whether there was a constitutional right to treatment, was to decide that issue in the Donaldson case, which was clearly an easier case to decide.

The Supreme Court was aware that the *Donaldson* case had been cited as precedent to decide *Wyatt* and a Georgia case that was argued with it, Burnham v. Department of Public Health, 503 F.2d 1319 (5th Cir. 1974), cert. denied, 422 U.S. 1057 (1975). The Supreme Court noted in *Donaldson* that its decision deprived the Fifth Circuit's opinion of precedential value, 422 U.S. at 578 n.12. This may have been more an assertion of procedural propriety than of substance, since four days after it decided *Donaldson* the Court declined to review the *Burnham* case.

^{3.} In the circuit court opinion, O'Connor v. Donaldson, 493 F.2d 507 (5th Cir. 1974), vacated, 422 U.S. 563 (1975), Judge Wisdom set out the theory for such a justification. There are two permissible types of commitments, he hypothesized: those under the police power, in which the state confines people who might injure themselves or others, and those under the parens patriae power, in which it confines the nondangerous in order to give them needed psychiatric treatment. Id. at 520-27. When the state commits someone under the parens patriae power, Wisdom proceeded, that person has a right to treatment; Donaldson was thus entitled to damages because his commitment was of the second type, and he had received no treatment at all. Id. at 531.

efficacious in psychiatry, (2) that is available at state mental hospitals, and (3) whose dangers are small. Moreover, there is a substantial body of well-designed research examining its efficacy. Finally, and perhaps most significant, schizophrenia is the most prevalent disorder in our public mental health system. It accounts for about half the patients in the system,⁴ and little, if anything, more than a diagnosis of schizophrenia is necessary for commitment in most mental health courts.⁵

The argument that treatment benefits ought to justify confinement looms as the single most important legal issue in commitment of the mentally ill. Although the courts to date are divided on the issue,⁶ and *Donaldson* gives no clue how the

The evidence presented in other types of cases reveals that a diagnosis of schizophrenia may have a number of significant legal effects. See, e.g., People v. Thasa, 32 N.Y.2d 712, 296 N.E.2d 804, 344 N.Y.S.2d 2 (1973) (schizophrenic incompetent to waive Miranda rights); Boland v. State, 30 N.Y.2d 337, 284 N.E.2d 569, 333 N.Y.S.2d 410 (1972) (schizophrenia is a disability which prevents tolling of statute of limitations); People v. Childs, 51 Ill. 2d 247, 281 N.E.2d 631 (1972) (cannot presume one diagnosed schizophrenic is sane; such a person is entitled to an instruction on insanity defense in murder trial).

6. One lower federal court, for example, has approved a forty-five day confinement of the mentally ill without a hearing on the ground that during that time "the medical staff at the hospital can adequately alleviate [the patient's] mental illness. . . ." Logan v. Arafeh, 346 F. Supp. 1265, 1269 (D. Conn. 1972), aff'd mem. sub nom. Briggs v. Arafeh, 411 U.S. 911 (1973). Accord, Fhagen v. Miller, 29 N.Y.2d 348, 278 N.E.2d 615, 328 N.Y.S.2d 393, cert. denied, 409 U.S. 845 (1972); cf. Robinson v. California, 370 U.S. 660, 666 (1962) (dictum that compulsory treatment of mentally ill, "involving quarantine, confinement, or sequestration," is a permissible state function). The West Virginia supreme court, on the other hand, has held involuntary confinement in the "best interest" of the patient unconstitutional, noting that "society abounds with persons who should be hospitalized, either for gall bladder surgery, back operations, corrective orthopedic surgery, or other reasons; yet, in these areas society would not contemplate involuntary hospitalization for treat-

^{4.} See M. Kramer, E. Pollack, R. Redick & B. Locke, Mental Disorder/Suicide 64-67 (1972).

^{5.} That this is true is clear to anyone who has watched a day's hearings at a mental health court. State psychiatrists testify to a diagnosis and the judge commits the patient, with little else of substance transpiring at the hearing. When statutes require there will be testimony about the dangers attendant upon the disorder, but, as likely as not, that testimony will be an inference from the diagnosis. See, e.g., Hough v. United States, 271 F.2d 458, 468 (D.C. Cir. 1959) ("any paranoid schizophrenic is potentially dangerous"). Since few mental patients ever litigate commitment proceedings strenuously enough to merit a published opinion, the slender proof necessary for commitment is difficult to document. For an example, however, of a reported case where apparently nothing more than a diagnosis of schizophrenia was required to commit a person, see In re Herold, 8 App. Div. 2d 905, 187 N.Y.S.2d 79 (3d Dep't 1959).

Supreme Court would decide the issue, it is an argument that psychiatrists are increasingly using to justify the present mental health system. Alan Stone, Professor of Law and Psychiatry at Harvard and Chairman of the American Psychiatric Association's Commission on Judicial Action, is the most important representative of this psychiatric view. Deeming predictions of dangerousness too unsound a basis for commitment, he defines the major issues in a commitment proceeding as whether a serious mental illness is present, whether treatment is available, and whether a reasonable man would accept that treatment.7 Since courts rely to a very great extent on psychiatric opinions in formulating mental health law, one can expect that the courts will increasingly have to deal with this approach.

I. THE LEGAL FRAMEWORK

The Donaldson decision clearly affirmed the notion, implicit in Jackson v. Indiana,8 that substantive due process governs commitment of the mentally ill—that courts must balance the means states use against the ends they hope to achieve. Jackson dealt with the indefinite commitment of a retarded deaf-mute adjudicated incompetent to stand trial for two robberies involving goods whose total value was about nine dollars. In discussing the due process implications of this procedure, the Court said that "[a]t the least, due process requires that the nature and duration of commitment bear some reasonable relation to the purpose for which the individual is committed."9 Since the state's purpose for commitment was to render Jackson competent for

ment." State ex rel. Hawks v. Lazaro, 202 S.E.2d 109, 123 (W. Va. 1974). Accord, Kendall v. True, 391 F. Supp. 413 (W.D. Ky. 1975); Lynch v. Baxley, 386 F. Supp. 378 (M.D. Ala. 1974); Bell v. Wayne County General Hospital, 384 F. Supp. 1085 (E.D. Mich. 1974); Lessard v. Schmidt, 349 F. Supp. 1078 (E.D. Wis. 1972), vacated on other grounds, 414 U.S. 473, conforming order issued, 379 F. Supp. 1376 (1974), vacated on other grounds, 421 U.S. 957 (1975).

^{7.} A. STONE, MENTAL HEALTH AND LAW: A SYSTEM IN TRANSITION (1975). Not all psychiatrists agree with Dr. Stone, see Peszke, Is Dangerousness an Issue for Physicians in Emergency Commitments? 132 Am. J. PSYCHIAT. 825 (1975), and some who seem to agree actually do not, see Rachlin, Pam & Milton, Civil Liberties v. Involuntary Hospitalization, 132 Am. J. Psychiat. 189 (1975) (Article's thesis is that the "overriding right [of mental patients] is adequate treatment," but the main justification it gives for involuntary hospitalization is not that it is necessary for treatment, but that the public is unwilling to accept the mentally ill.). However, Stone's voice is clearly the most important in psychiatry in this area.

^{8. 406} U.S. 715 (1972). 9. Id. at 738.

trial, in order to sustain the commitment, the state would have to demonstrate both a substantial probability of rendering Jackson competent and actual progress toward that goal. Employing the same process of reasoning, the Court in *Donaldson*, given the jury's findings that Donaldson was not dangerous and had received no treatment during his confinement, scrutinized "what was left as justification for keeping Donaldson in continued confinement." It rejected as "unjustified" custodial confinements based upon a simple finding of mental illness, analogizing such commitment to confinement intended to provide the patient a higher standard of living, or to protect the public from exposure "to those whose ways are different." The label is not substantive due process, but the process of analysis is.

The *Donaldson* opinion, then, has at least set the stage for a thorough consideration of the question it declined to address. To begin that analysis, one must deal first with three subordinate questions: what are the relevant factors in the balancing process; what should be the state's burden of proving that the balance lies in favor of its interests; and what type of evidence should be required to meet that burden?

A. THE RELEVANT FACTORS

Clearly, if treatment is to be the state's justification for involuntary confinement of the mentally ill, some degree of efficacy in the proposed treatment is a sine qua non to justifying the confinement. It is a necessarily justiciable issue, not one which can be given over entirely to the psychiatrists' unreviewable discretion. The Supreme Court said as much in a footnote to the Donaldson opinion. Responding to Dr. O'Connor's arguments that, despite the jury's finding that Donaldson was not provided treatment, the Court must treat the adequacy of treatment as a nonjusticiable question to be left to the discretion of the psychiatric profession, the Court stated that "where 'treatment' is the sole asserted ground for depriving a person of liberty, it is plainly unacceptable to suggest that the courts are powerless to determine whether the asserted ground is present." 12

If the adequacy—or, better put, the efficacy—of treatment is a justiciable issue when one is deciding the appropriateness of a confinement, so too it should be when one is deciding the perhaps

^{10. 422} U.S. at 574.

^{11.} Id. at 575.

^{12.} Id. at 574 n.10.

inseparable issue of whether to administer treatment to an unconsenting patient. I feel that the proposition that courts can and must examine the efficacy of treatment underlies such cases as Application of President and Directors of Georgetown College, Inc.,13 and Jacobson v. Massachusetts,14 leading cases for the proposition that the state may treat an unwilling patient. In Georgetown, Judge Skelly Wright of the United States Court of Appeals for the District of Columbia ordered a lifesaving blood transfusion to a patient who refused it on religious grounds;15 in Jacobson the United States Supreme Court upheld the constitutionality of a compulsory vaccination program. In neither case did the court explicitly examine the efficacy of treatment (in Jacobson the Court deferred to the legislative judgment: in Georgetown the question was not addressed), but in each case the treatment was widely known to be effective. Had this not been the case the courts would have required evidence to support the infringements upon personal autonomy.¹⁶ If, for example, the

One commentator, Byrn, Compulsory Lifesaving Treatment for the Competent Adult, 44 Fordham L. Rev. 1, 11 (1975), reports one contrary case from a newspaper report. The case appears to be unique. An Illinois case cited by Byrn for the proposition that the refusal of a transfusion must be sustained, where no circumstances establish a compelling interest in preserving the life of a competent adult patient for the welfare and safety of others, was decided after the transfusion had been ordered by the lower court and given. In re Estate of Brooks, 32 Ill. 2d 361, 205 N.E.2d 435 (1965). Hence the court did not itself face the life-ordeath choice and could exercise its intellectual inclinations with impunity. There were other aspects of the case that might also have influenced the court, such as the fact that despite the transfusion Mrs. Brooks died, or that the guardian was appointed without notice to Mrs. Brooks or her family. Moreover, the court viewed Mrs. Brooks as a competent adult. Byrn says that "[t]he trend in the law favors Brooks," but the cases cited above would at least seem to indicate that the courts are divided.

16. In *Jacobson*, moreover, the Court did say that it assumed no one would be vaccinated who was not "a fit subject of vaccination." 197 U.S. at 37. The Court must have meant by this that only those who would benefit by the vaccination would receive it (for example, that it would not be forced on those who, by virtue of having already had

^{13. 331} F.2d 1000 (D.C. Cir.), cert. denied, 377 U.S. 978 (1964).

^{14. 197} U.S. 11 (1905).

^{15.} See also United States v. George, 239 F. Supp. 752 (D. Conn. 1965) (transfusion ordered for Jehovah's Witness father of four in critical condition because of bleeding ulcer); John F. Kennedy Memorial Hospital v. Heston, 58 N.J. 576, 279 A.2d 670 (1971) (transfusion ordered for incoherent Jehovah's Witness severely injured in automobile accident; supreme court decision issued after transfusion completed); Powell v. Columbian Presbyterian Medical Center, 49 Misc. 2d 215, 267 N.Y.S.2d 450 (Sup. Ct. 1965) (court overrode refusal, on religious grounds, of lifesaving transfusion).

danger in *Georgetown* had been death by cancer and the procedure advised had been a radical mastectomy, a procedure whose benefits are more speculative than the benefits of a transfusion to someone who has lost a great deal of blood, the decision might have been quite different.¹⁷

In the legal context, the concept of efficacy is a complex one; it is not simply a question of curing or not curing, but subsumes two subquestions: how likely it is that the treatment will bene-

smallpox, had a natural immunity to the disease). Hence, the Court recognized that the efficacy of the treatment must be considered. The other possible interpretation of the quoted phrase—that "fit" meant one whose health would be unimpaired by vaccination—cannot have been what the Court intended, for it went on to discuss disjunctively the threat vaccination might pose to a person's health.

At least one recent case has adopted the view that "treatability" is a prerequisite to civil commitment. Lynch v. Baxley, 386 F. Supp. 378, 391 (M.D. Ala. 1974). Some psychiatrists, too, have advocated this position. See, e.g., Peele, Chodoff & Taub, Involuntary Hospitalization & Treatability: Observations from The District of Columbia Experience, 23 CATH. U. L. REV. 744, 750-53 (1974); Redich & Mollica, Overview: Ethical Issues in Contemporary Psychiatry, 133 Am. J. PSYCHIAT. 125,

129 (1976).

17. A noteworthy decision in this regard is Kaimowitz v. Department of Mental Health, Civil No. 73-19434-AW (Wayne County Cir. Ct. Mich. July 10, 1973), reprinted in 2 Legal Rights of the Mentally Handicapped 785 (B. Ennis & P. Friedman, ed. 1973) [hereafter cited as Legal Rights], forbidding a mental patient to consent to various psychosurgical techniques intended to eliminate the patient's traits of sexual psychopathy, a treatment of unknown efficacy and possible danger. The court concluded that the program proposed was "clearly experimental, pose[d] substantial danger to research subjects . . . carrie[d] substantial unknown risks," id. at 799, and promised no benefit to either subject or society. It forbade the experiments because "informed consent cannot be given by an involuntarily detained mental patient. . . ." Id. at 803. Much of the Kaimowitz opinion, however, and much of the trial, were spent on the question of whether psychosurgery is an effective form of treatment, and the court, in summing up, emphasized that once "the type of psychosurgical intervention proposed here becomes an accepted neurosurgical procedure and is no longer experimental, it is possible, with appropriate review mechanisms, that involuntarily detained mental patients could consent to such an operation," id. at 820 (footnote omit-Since the medical acceptability of psychosurgery would not change the quality of John Doe's consent, it appears that evidence of a lack of efficacy and of safety—and not evidence of a lack of consent—was the determinative factor for the *Kaimowitz* court.

For other cases where courts had to closely examine a specific mode of treatment (to use the term loosely) and fashion a fairly specific remedy, see Nelson v. Heyne, 491 F.2d 352 (7th Cir. 1974) (specific regulation of use of tranquilizing drugs); Knecht v. Gillman, 488 F.2d 1136, 1140-41 (8th Cir. 1973) (specific regulation of the use of apomorphine in Iowa Security Medical Facility); cf. Wyatt v. Aderholt, 368 F. Supp. 1383 (M.D. Ala. 1974) (order governing sterilization of retarded resident

of state school).

fit the patient, that is, what percentage of a treated sample will improve, and among those who improve, how great that improvement will be. Both of these are important in evaluating the treatment we impose on an unwilling patient. If the improvement is great but the success rate is low, we may hesitate to force someone to undergo the treatment; similarly, we may decline to force someone to undergo a treatment of almost certain success for a trivial disorder—as, for example, ordering someone to take an aspirin for a headache. These two factors, however, are not the only considerations. Another clearly relevant factor in the balancing process must be the danger to the patient from the proposed treatment. If we are to confine a person against his will solely to cure him of mental illness, surely it will not do to inflict upon him some equivalent or greater (or perhaps even lesser) harm or expose him to some significant risk of harm. The treatments in both Georgetown and Jacobson, it is worth noting, were commonly known to be quite safe.

Finally, the treatment must prevent some foreseeable, serious danger, either to the patient or to society. In *Georgetown*, while Judge Wright adduced a number of bases for his decision, including the inaudibility of the patient's answers when asked if she wanted the transfusion and the fact that her infant child would have been left without a mother, "[t]he final and compelling reason for granting the emergency writ," he wrote, "was that a life hung in the balance." And in *Jacobson*, the vaccination was both to protect the patient from smallpox and society at large from an epidemic. 19

^{18. 331} F.2d at 1009.

^{19.} Since the question raised but left unanswered by the Donaldson Court was the power of the state to confine and treat a nondangerous mental patient and the question that I will deal with is the treatment of the nondangerous schizophrenic, it is necessary for me to explain how the issue of dangerousness even arises. In the first place, by nondangerous I mean those schizophrenics who have not been shown on the basis of some substantial evidence from their individual history to be more likely than the average person to commit some dangerous act. When the issue of dangerousness arises at the commitment stage, the typical evidence of dangerousness is a psychiatrist's clinical judgment that the patient will do one of a number of dangerous things—for example, assault someone, see, e.g., People v. Sansone, 18 Ill. App. 3d 315, 309 N.E.2d 733 (Dist. Ct. 1974), or maim himself, see, e.g., Mayock v. Martin, 157 Conn. 56, 245 A.2d 574 (1969)—within a reasonable period of time. Such judgments are most often based on the recent behavioreither physical or verbal-of the patient, and may be quite independent of the diagnosis of mental illness. See text accompanying note 179 infra. Excluding this type of dangerousness does not exclude an examination

To summarize, I suggest that there are four factors to be examined in determining the permissibility of involuntary treatment: (1) the likelihood of improvement: what the chances are that the patient will improve; (2) the scale of improvement: how much he will improve: (3) the dangers attendant on treatment; and (4) the dangers attendant on failing to treat.

B. THE BURDEN ON THE STATE

The next question is what burden the state carries to support its decision to confine to treat. One respected author has argued that all the state need show in order to justify "governmental intrusions upon human liberty [are] plausible arguments in support of the intrusions imposed."²⁰ I would suggest, on the other hand, that the state must show a compelling need for the proposed intrusion. Involuntary treatment is inseparable from involuntary confinement in a mental hospital.²¹ Not only do courts treat the two as one—courts rarely order treatment without hospitalization,²² and the order for commitment, even when it says nothing about treatment, is generally thought to imply an order to administer treatment—but, in practical terms, there simply can be no involuntary treatment without involuntary hos-

of allegedly dangerous characteristics of schizophrenics as a class: that they commit more crimes, that they are more often unable to take care of themselves or that they less frequently hold steady jobs than non-schizophrenic persons. Insofar as many justify commitment of the non-dangerous schizophrenic on the basis of these putative characteristics of schizophrenics as a class, I will find it necessary to discover whether these characteristics exist and whether drug treatment has any effect on them.

20. Tribe, Foreward: Toward a Model of Roles in The Due Process of Life and Law, 87 HARV. L. REV. 1, 17 (1973).

21. The two may involve different considerations, and commentators have differed over whether it is worse to be jailed or to be shot full of drugs. See Shapiro, Legislating the Control of Behavior Control: Autonomy and the Coercive Use of Organic Therapies, 47 S. CAL. L. Rev. 237, 280-81 n.147 (1973) and sources cited therein. A recent decision of the Minnesota supreme court, barring a damage suit for electroconvulsive treatment given to a minor without consent, considered that the decision to undergo hospitalization was a "more fundamental decision" than the decision to give treatment. Price v. Sheppard, 239 N.W.2d 905, 911 (Minn. 1976). The court's approach, however, was based on its assumption that the fact of commitment implied that the minor was unable to act rationally for himself. Id.

22. The suggestions of Lake v. Cameron, 364 F.2d 657 (D.C. Cir. 1966) and Chambers, Alternatives to Civil Commitment of the Mentally Ill: Practical Guides and Constitutional Imperatives, 70 Mich. L. Rev. 1107 (1972), that courts limit themselves to the least restrictive therapeutic alternative have, for the most part, fallen on deaf judicial ears.

pitalization. If a patient is free to walk out the door of the hospital, then he is also free, by so doing, to refuse treatment. We are faced, then, with the Supreme Court's categorization of involuntary confinement in an institution as a "massive curtailment of liberty,"23 and with its conclusion that where physical liberty is at stake, such "'evidence as would suffice in a civil case' "24 is not sufficient. Hence, proving the reasonableness of treatment—the analogue of proving a criminal act by the preponderance of the evidence—should be insufficient where the treatment necessarily entails confinement.

Recently, however, in response to criticism of involuntary psychiatric treatment, both legal²⁵ and psychiatric²⁶ commentators have taken the position that the refusal of treatment by a mentally ill person may be overridden if he lacks "the mental

^{23.} Humphrey v. Cady, 405 U.S. 504, 509 (1972).
24. In re Winship, 397 U.S. 358, 363 (1970) (juvenile delinquency proceeding) (quoting from the dissenting opinion in the court below, W. v. Family Court, 24 N.Y.2d 196, 205, 247 N.E.2d 253, 259, 299 N.Y.S.2d 414, 422 (1969).

In one recent case that has travelled to the Supreme Court several times, the Court has hinted that it considers mental health proceedings to be at least "quasi-criminal." In Lessard v. Schmidt, 349 F. Supp. 1078 (E.D. Wis. 1972), vacated, 414 U.S. 473, conforming order issued, 379 F. Supp. 1376 (1974), vacated, 421 U.S. 957 (1975), the district court ordered that the mental health courts of the state of Wisconsin follow certain constitutional guidelines in their adjudications. In the case's most recent return to the Supreme Court, the Court vacated and remanded to the district court, Schmidt v. Lessard, 421 U.S. 957 (1975), in light of Huffman v Pursue, 420 U.S. 592 (1975), which, on the principles of Younger v. Harris, 401 U.S. 37 (1971), forbade federal courts from interfering in pending state proceedings which were "akin to a criminal prosecution." 420 U.S. at 604. Hence the Court must at least incline towards the view that commitment proceedings are "akin to a criminal prosecution."

^{25.} Developments in the Law-Civil Commitment of the Mentally Ill, 87 HARV. L. REV. 1190, 1213-14 (1974) [hereafter cited as Developments].

^{26. &}quot;Unfortunately, a small percentage of patients who need hospitalization are unable, because of their mental illness, to make a free and informed decision to hospitalize themselves. Their need for and right to treatment in a hospital cannot be ignored." Board of Trustees of the American Psychiatric Ass'n, Position Statement on Involuntary Hospitalization of the Mentally Ill, 130 Am. J. Psychiat. 392 (1973). See also Peszke, Is Dangerousness an Issue for Physicians in Emergency Commitment? 132 Am. J. PSYCHIAT. 825, 827 (1975) ("not committing a nondangerous mentally ill individual who is incapable of making rational decisions and could benefit from treatment is analogous to not hospitalizing an unconscious accident victim who is unable to ask for help but is not dangerous"). But cf. Redlich & Mollica, supra note 16, at 129 (incompetence plus dangerousness necessary for involuntary treatment).

capacity to determine the desirability of obtaining care"²⁷ and the benefits of treatment outweigh the detriments; or put another way, that the state may ignore a refusal of confinement and treatment where "a reasonable man in this situation [would] give up this much freedom for this much treatment."²⁸

While this approach seems quite plausible at first hearing, it is unsound. The idea of "incompetence" on which this view relies is not sensitive to the human realities involved. It treats the mind as a machine: if it malfunctions, we simply ignore its product—here, the refusal. But the mind is not a machine, nor are psychiatrists mechanics who have any clear notion of what happens inside the mind. Their conclusions—and it is they who are generally considered the "experts" in this area, they to whom courts will defer—are based not on any knowledge about how the mind works, but on their opinion that the responses of the person are not rational. Psychiatrists' testimony tends to be characterized by statements "regarding instances of the individual's failure to speak or behave rationally, with particular attention to the reasons which the individual espouses for refusing hospitalization."29 Consonant with this logic, if the person in question refuses hospitalization for reasons that a psychiatrist finds frivolous, or simply unpersuasive, the state should override the patient's refusal of hospitalization or treatment.

This approach does not square with the deference usually accorded a patient's wishes. Georgetown and Jacobson are

^{27.} Developments, supra note 25, at 1213-14. If by this the editors meant to include only those who could make no expression of assent or protest, their test poses no particular problem. Our jurisprudence routinely ignores the lack of consent of a patient who is unable to communicate his or her consent to, or refusal of, treatment. Normally these cases arise where, for one reason or another, the person lacks the physical capacity to communicate, perhaps because he is unconscious—this is the typical emergency room situation—or is a human vegetable who makes no discernible response to our questions, however phrased. In these cases we follow our judgment because we have no other choice and try to substitute what we feel would have been the patient's judgment. In civil commitment cases, this category would perhaps include the catatonic who does not respond to questions put to him. But it is clear that the comment means to go a great deal further than this: it would have us determine whether someone is "incapable of rational decisionmaking." Id. at 1214. The Minnesota supreme court recently adopted this unsound approach, Price v. Sheppard, 239 N.W.2d 905, 911 (quoting Developments, supra), but its concern with the "necessity and reasonableness of the means utilized by the state" as well as the possible dangers involved, id. at 911-12 seem to parallel the concerns embodied in the four factors discussed in the text.

^{28.} Stone, Comment, 132 Am. J. PSYCHIAT. 829, 830 (1975).

^{29.} Developments, supra note 25, at 1301.

clearly exceptions to the norm: physicians and judges usually honor a patient's refusal of treatment, no matter how trivial the reason for refusal. There is no good reason to deviate from this position when we are dealing with the mentally ill. In a recent case, for example, a court refused to override a mental patient's "irrational but competent" refusal to undergo breast surgery for cancer; that the reasons for the refusal were unsound was considered immaterial.30 If the law requires consent out of respect for the dignity and autonomy of the individual, that interest can be no less significant when the individual is a mental patient; if the interest does diminish, then we are saying that the mental patient is less a human being than others. Consent is not simply a question of who knows better what will happen, or what the risks are; the doctor is generally a better judge of that than the patient is. But since the patient will suffer the consequences. since he bears the risk of mischances, he should have the power to make the decision.

Because of the inevitable loss of liberty involved in involuntary treatment and out of a respect for the human dignity of the patient, courts ought to consider treatment in the face of refusal, even a refusal by a mentally ill person, to be the rare exception and not the rule—an exception to be established only by a demonstration that, upon a balancing of the factors previously discussed, the state's interest in treatment is compelling.

C. THE ADMISSIBLE EVIDENCE

The final issue to be addressed in establishing a legal framework is the type of evidence that should be required of the state in its attempt to establish the necessity of treatment in particular cases. If we require the state to make its case a compelling one, surely it ought not be permitted to make its case on the basis of shoddy evidence.

Let us consider, for illustration, what evidence ought to be adduced to prove the likelihood and scope of improvement. Opinions arising out of the unsystematic clinical experience of psychiatrists, psychologists, and others who labor among the mentally ill should not by themselves be enough to prove the effectiveness of a method of treatment.³¹ The reasons for this

^{30.} In re Yetter, 62 Pa. D. & C.2d 619, 624 (Northampton City Ct. 1973), criticized in Friedman, Legal Regulation of Applied Behavior Analysis in Mental Institutions and Prisons, 17 Ariz. L. Rev. 39, 79 (1975).

^{31.} For a discussion of many of the reasons why clinical judgments

are numerous. The psychiatrist's opinion of whether his patient is better cannot be an unbiased judgment; it may be highly colored by what he thinks the patient ought to be. His evaluation of the patient's improvement may simply be a reflection of the fact that, after long contact with him, the patient now agrees with the psychiatrist's outlook on life. The patient, on the other hand, may be deceiving the psychiatrist. If the psychiatrist has no source of information other than the patient's own report about himself, he may know nothing about how the patient really gets along in the world. Also, the psychiatrist may remember his successes better than his failures. Or, perhaps unconsciously, he may have picked for treatment patients who would respond well to the treatment or who might have improved on their own.

The biases built into the clinical observations of psychiatrists have led to a tendency toward "faddishness" in psychiatric treatment. A few observers report spectacular results on a few patients with a new kind of treatment; others report similar findings.³² Quickly the treatment method becomes standard practice until, sometime later, more careful observers note that their patients seem no better and maybe a little worse because of the treatment. The use of lobotomy for schizophrenics during the fifties is an example of a once standard therapy that psychiatrists now think worthless or worse.

Unless we wish merely to perpetuate the errors of the psychiatric profession, we must ask for something sounder than subjective clinical experience to justify a treatment method. Objective research has been done on the efficacy of psychiatric treatment, and it is there that we must turn if we hope to justify our system of involuntary treatment. Of course not every piece

in general are unreliable, see Ennis & Litwack, Psychiatry and the Presumption of Expertise: Flipping Coins in the Courtroom, 62 Calif. L. Rev. 693, 719-34 (1974).

^{32.} One of the most notable examples of this "faddishness" occurred during the 1830's and 1840's, when the directors of mental hospitals claimed 80, 90 and even 100 percent cure rates among their charges. Their statistics were the most persuasive evidence in convincing legislatures to build mental hospitals. In the end it turned out that the people claiming high cure rates had manipulated their statistics in the most outrageous ways. In calculating a cure per patient ratio, for example, doctors counted a patient who had been "cured" more than once (a relatively common occurrence) as multiple cures, but retained the denominator of only one patient. One historian concluded that institutional heads perpetuated this sort of misrepresentation "in order to stay abreast of their fellow practitioners who were doing the same thing." A. Deutsch, The Mentally Ill in America 133 (1949).

of published research should be given equal weight.^{\$8} We should require two things of all research on which we base our decisions: (1) adequate experimental design, and (2) replication of results. Those two elements are the soul of the scientific method.

If there is a flaw in experimental design, we cannot be sure that the experimental result is due to the hypothesized cause. Some researchers have noted, for example, that poorly designed experiments on the efficacy of psychoactive drugs produce a significantly higher cure rate than those with a tight design.³⁴ One may speculate on the reasons for this. My own preference is that there is an unconscious bias in the researcher, who knows that greater glory belongs to the discoverer than to the debunker, and that this bias appears in the experimental results because of the lack of proper controls. But whatever the reason, we should be suspicious of the positive results of poorly designed research.

In reviewing the vast literature of therapeutic results one finds conflicting reports ranging from severe skepticism of the various therapies to inordinate enthusiasm for them. Consequently, every clinician can cite a study to support his particular viewpoint on any given therapy.

^{33.} See, e.g., Staudt & Zubin, A Biometric Evaluation of Somatotherapies on Schizophrenia, 54 Psychol. Bull. 171 (1957):

^{34.} Foulds, Clinical Research in Psychiatry, 104 J. MENT. Sci. 259 (1958) (survey of 72 British and American studies; 25 percent of controlled experiments showed positive therapeutic results; 83 percent of uncontrolled experiments showed positive therapeutic results); Fox, The Investigation of the Effects of Psychiatric Treatment, 107 J. MENT. Sci. 493 (1961) (57 articles: where experimental design acceptable, 54 percent positive; where unacceptable, 91 percent positive). See also Glick & Margolis, A Study of the Influence of Experimental Design on Clinical Outcome In Drug Research, 118 Am. J. PSYCHIAT. 1087 (1959) (single-blind experiments produce significantly more positive results than double-blind experiments, but other differences between the two types of experiments, such as length of treatment and use of placebo, make inferences difficult to draw). The perception that uncontrolled studies show better results than controlled studies seems to be shared by most drug researchers. Hollister's group referred to one case in which their research revealed "a situation almost unique in clinical psychopharmacology, in which a drug has looked better in a controlled than in an uncontrolled study." Hollister, Overall, Caffey, Bennett, Meyer, Kimbell & Honigfeld, Controlled Comparison of Haloperidol with Thiopropazate in Newly Admitted Schizophrenics, 135 J. Nerv. & Ment. Dis. 544, 548 (1962). Klein and Davis have pointed out that in the case of chlorpromazine and related drugs "studies showing methodological difficulties tend to find drugs ineffective," D. Klein & J. Davis, Diagnosis and Drug Treatment OF PSYCHIATRIC DISORDERS 55 (1969) [hereafter cited as Klein & Davis], but they generally agree that "uncontrolled studies frequently give enthusiastic reports about drugs which subsequent double-blind evaluations show to be useless." *Id.* at 52.

Replication is necessary to reduce the likelihood that the first result was pure chance—for example, that the treatment was tried on a group of people who were going to get better the next week anyway—and to rule out the possibility of conscious or unconscious cheating. In the present world of academic medicine, where most psychiatric research is done, there is great pressure to produce results, which may lead to fakery.³⁵ Financial motives also intrude. For example, the pharmaceutical industry finances most of the psychiatric drug research in this country. Research money may flow with greater regularity to those whose research shows more positive results, and even the fear of such discrimination may influence a research scientist.

In the past, the courts have been regrettably reluctant to examine carefully the efficacy of treatment provided to the involuntary patient. Most significantly, the right-to-treatment cases, which rest on the theory that if the state deprives one of his liberty on the ground that he needs treatment, it must provide that treatment, have generally been content to ensure that treatment will be provided without questioning the potential success of the proposed treatment.86 This is particularly dis-

^{35.} The scandal at the Sloan-Kettering Institute is perhaps the bestpublicized research fraud in recent times. There a researcher who was trying to discover ways to defeat the body's rejection of foreign tissue, a discovery which would greatly aid organ transplants, colored the coats of mice in his experiment and claimed that the colored hair had been transplanted from other mice. The researcher tried to explain his actions by pointing to the pressures on him to produce research results. See TIME, April 29, 1974, at 67; June 3, 1974, at 60; June 10, 1974, at 70.

^{36.} The first right-to-treatment case, Rouse v. Cameron, 373 F.2d 451 (D.C. Cir. 1966), set the tone for subsequent litigation. There the Court of Appeals for the District of Columbia, per Judge Bazelon, held that Mr. Rouse, who four years earlier had been found not guilty by reason of insanity of a crime with a one year maximum sentence and thereafter committed to a hospital, had a statutory right to receive treatment while incarcerated. Judge Bazelon, obviously reluctant to deal with someone else's expertise, wrote:

According to leading experts "psychiatric care and treatment" includes not only the contacts with psychiatrists but also activities and contact with the hospital staff designed to cure or improve the patient. The hospital need not show that the treatment will cure or improve him but only that there is a bona fide effort to do so. This requires the hospital to show that initial and periodic inquiries are made into the needs and conditions of the patient with a view to providing suitable treatment for him, and that the program provided is suited to his particular needs. Treatment that has therapeutic value for some may not have such value for others. For example, it may not be assumed that confinement in a hospital is beneficial "environmental therapy" for all.

The effort should be to provide treatment which is adequate in light of present knowledge. Some measures which have ther-

in light of present knowledge. Some measures which have ther-

appointing in view of the fact that, although the attorneys arguing these cases have urged courts not to go so far as to say that treatment alone will justify institutionalization of a mental patient,³⁷ courts, including the federal appellate court in *Donald-son*,³⁸ have nonetheless taken this step,³⁹ apparently on the theory that society may confine people for their own good and treat them against their will.⁴⁰

apeutic value for the patient may be too insubstantial in comparison with what is available. On the other hand, the possibility of better treatment does not necessarily prove that the one provided is unsuitable or inadequate.

Id. at 456-57 (footnotes omitted, emphasis added).

Medical observers, with an almost audible sigh of relief, read this language, particularly the italicized sentence, to mean that the hostal need not prove that its treatment is effective. See Cameron, Non-medical Judgment of Medical Matters, 57 GEO. L.J. 716, 720-21 (1969). Although the second paragraph seems to imply that some broad notion of effectiveness inheres in the "bona fide effort" that the hospital must make, on the whole this is an accurate reading of the passage.

The courts are not alone in declining to examine the psychiatrist's expertise with regard to the efficacy of psychiatric treatment. Commentators have relied on pat, published statements on the effect of psychiatric drugs in evaluating whether the state should treat involuntary patients over their refusal of treatment. See, e.g., Schwartz, In the Name of Treatment: Autonomy, Civil Commitment, and Right to Refuse Treatment, 50 Notre Dame Law. 808, 812-13 (1975); Shapiro, Legislating the Control of Behavior Control: Autonomy and the Coercive Use of Organic Therapies, 47 S. Cal. L. Rev. 237, 244-46 & nn. 9, 10, 76, 88, & 91 (1974); Comment, Forced Drug Medication of Involuntarily Committed Mental Patients, 20 St. Louis L.J. 100, 111-12, 116 (1975); Note, Conditioning and Other Technologies Used to "Treat?" "Rehabilitate?" "Demolish?" Prisoners and Mental Patients, 45 S. Cal. L. Rev. 616, 625-26 (1972). Unlike the courts, the majority of commentators have opposed such treatment. Their reliance on overbroad statements about psychotropic drugs, however, undermines their argument. Psychiatrists simply ignore them because of their obvious ignorance of the relevant psychiatric literature. I think that the case can be made against involuntary treatment with psychotropic drugs, but if one is to convince those who administer the system, the psychiatrists, one must familiarize oneself with their literature.

- 37. See Brief for Respondent at 58 n.61, O'Connor v. Donaldson, 422 U.S. 563 (1975).
 - 38. 493 F.2d at 522.
- 39. The step may be taken silently. One court, for example, required patient consent to treatment only in the case of "unusual or hazardous" procedures, implying that consent was not necessary for other procedures. Wyatt v. Stickney, 344 F. Supp. 373, 380, app. A, par. 9 (M.D. Ala. 1972).

Some courts have refused, as indicated above, to sanction confinement of nondangerous mentally ill persons. See note 6 supra and accompanying text.

40. Although most lawyers who have litigated right-to-treatment cases categorically deny that the right-to-treatment precludes a right-to-refuse-treatment, see, e.g., Friedman & Halpern, The Right to Treat-

One explanation for the hesitancy to examine efficacy may be that these cases have dealt almost entirely with institutions in which no treatment was offered or the treatment offered was a patent farce. 41 In the major lawsuit in the area, $Wyatt\ v$.

ment, in 1 Legal Rights, supra note 17, at 273, 290-91, the denial is not particularly persuasive. Let us, for purposes of argument, separate the issues of confinement and treatment and examine some of the problems that arise with the right-to-treatment if we also accept a right-to-refusetreatment. If, for example, an involuntary patient refuses to take the drugs that the hospital offers him, can the hospital both honor that refusal and continue to hold him against his will? If it cannot, is he really held involuntarily, since by the act of refusing he gets out? And if he is not held involuntarily, then the key element in all right-to-treatment cases, confinement, is missing. If the hospital can keep him although he refuses treatment, then is that any different, in actual effect, from keeping him without treatment? Would it not be cruel and unusual to punish someone for his failure to consent to treatment by keeping him locked up? Is it less cruel and unusual to require the doctors to make significant efforts to convince the patient to consent to treatment? The trial judge in Donaldson, 493 F.2d at 531, apparently feeling that a patient's refusal of treatment that others felt was good for him was enough to excuse the others from personal liability for confining him without treatment, instructed the jury that Mr. Donaldson could not recover damages for those periods when he refused proferred treatment. The plaintiff did not appeal this instruction, so the issue was not before the Supreme Court. See also Whitree v. State, 56 Misc. 2d 693, 290 N.Y.S.2d 486 (Ct. Cl. 1968) (holding that doctors who honored plaintiff's refusal to receive drugs were acting in a manner that was "illogical, unprofessional and not consistent with prevailing medical standards"). Contra, Winters v. Miller, 446 F.2d 65 (2d Cir.), cert. denied, 404 U.S. 985 (1971) (giving medication to unconsenting Christian Scientist states a cause of action under 42 U.S.C. § 1983).

41. In Donaldson v. O'Connor, 493 F.2d 507, 511 (5th Cir. 1974), vacated, 422 U.S. 563 (1975), the court found that one defendant-psychiatrist's claim that Mr. Donaldson had received "recreational" and "religious" therapy "amounted" to the fact that Donaldson had been allowed "to attend church and engage in recreational activities, privileges he probably would have been allowed in a prison." The court likewise found that "milieu therapy" "was nothing more than keeping Donaldson in a sheltered hospital 'milieu' with other mental patients; the defendants did not refer to anything specific about the 'milieu' that was in any special way therapeutic." See also In re Maddox, 351 Mich. 358, 88 N.W.2d 470 (1958) (rejecting the argument that prison is therapy for sexual psychopaths).

There are some curiously disingenuous cases which justify lengthy incarceration with apparently ineffective treatment because of the experimental nature of the program. In State ex rel. Blunt v. Narcotic Addiction Cont. Comm'n, 58 Misc. 2d 56, 295 N.Y.S.2d 276 (Sup. Ct.), aff'd mem., 31 App. Div. 2d 718, 296 N.Y.S.2d 533 (1st Dep't 1968), aff'd mem., 24 N.Y.2d 850, 248 N.E.2d 918, 301 N.Y.S.2d 89 (1969), an addict who was convicted of a misdemeanor with a one year maximum sentence was committed to Rikers Island with other criminal addicts and nonaddicts under a statute permitting a three-year incarceration for treatment of addiction, and thereafter sought a writ of habeas corpus. He showed that only 50 percent of the addicts at Rikers Island participated in the

Stickney,⁴² plaintiffs argued that if certain conditions did not exist—a humane environment, adequate treatment plans and record-keeping for every patient, and an adequate staff—treatment was not possible. It is not surprising, then, that the court's order tried to establish these conditions and said virtually nothing about the sufficiency of the treatment provided.⁴³

In any event, it should now be apparent, after *Donaldson*, that, at least where treatment is the sole justification for confinement of the mentally ill (assuming again, that it can be the

treatment program and that the program's only "therapy" consisted of group meetings led by other criminal addicts. The court termed these meetings "motivational rather than rehabilitative; their main purpose being to engender in the addict a sincere desire to break his habit, change his way of life, and accept rehabilitation," 58 Misc. 2d at 60, 295 N.Y.S.2d at 279. Of the 600 addicts who had been committed to Rikers Island "only 20-25 addicts had progressed sufficiently to the point where they may be deemed tentatively 'cured.' " Id. at 61, 295 N.Y.S.2d at 280. Nonetheless the court denied habeas because "[t]he experimental nature of this program is obvious, and trial and error must be permitted if an effective and efficient program is to be evolved." Id. at 64, 295 N.Y.S.2d at 282. That in all likelihood Mr. Blunt would be required to spend three years in a prison instead of one, so that the state might experiment on him, seemed not to disturb the judge.

Director of Patuxent Inst. v. Daniels, 243 Md. 16, 42, 221 A.2d 397, 412 (1965), cert. denied, 385 U.S. 940 (1966), similarly held that the court could not interfere with Maryland's institution for defective delinquents, which had produced precious few cures (apparently 162 out of 581 cases) in its ten years of operation, "until its ineffectiveness is clearly demonstrated," because the system was "an experimental one." One notable tribunal has held that, in experiments involving human subjects, "[t]he voluntary consent of the human subject is absolutely essential." United States v. Karl Brandt, in 2 Trials of War Crim. 181 (Nuremberg Mil. Trib. 1947). Certainly if one wished to conduct the "experiments" at Rikers Island and Patuxent, one could get appropriate volunteers from the prison population. Those subjects, while their consent might not be all that one might hope for, would at least have finite terms of confinement. Irrespective of their criminal sentences, the guinea pigs in Patuxent remain confined until the "experiment" is successful.

42. 344 F. Supp. 373 (M.D. Ala. 1972), modified sub nom. Wyatt

v. Aderholt, 503 F.2d 1305 (5th Cir. 1974).

43. Judge Johnson's order did put some limitations on the types of treatment that could be used: no "unnecessary or excessive medication," 344 F. Supp at 380, app. A, ¶ 6 (M.D. Ala. 1972); no "physical restraint and isolation," except in emergencies, id. at ¶ 7; no "experimental research without express and informed consent," id. at ¶ 8; and no "procedures such as lobotomy, electro-convulsive treatment, adversive [sic] reinforcement conditioning or other unusual or hazardous treatment procedures without express and informed consent," id. at ¶ 9. Other courts issuing orders governing the running of institutions have followed the same general pattern. See, e.g., Martarella v. Kelley, 359 F. Supp. 478, 484, app. A, ¶ 8 & 9 (S.D.N.Y. 1973) (defining treatment in general terms).

sole justification⁴⁴), the courts must examine the efficacy of the treatment in order to ensure that the patient is not being deprived of liberty without due process of law.⁴⁵ The remainder of this Article is in large measure devoted to demonstrating the sort of analysis of efficacy that a court should undertake.

II. DRUG TREATMENT OF SCHIZOPHRENIA

I have already outlined why I choose to focus upon drug treatment of schizophrenia. Some elaboration is now in order. As indicated above, one reason for my choice is the large body of well-designed research on this topic. The research on drug treatment is generally superior to that concerning other types of treatment, because it is possible to do drug studies double blind—that is, with patients randomly assigned to different physically identical drugs, or to drug and identical placebo—so that neither patient nor psychiatrist knows who is receiving what medication. This design ensures that the expectations of neither patient nor researcher will influence the perception of the drug effect. Drug treatment is also the only psychiatric area in which enough research exists to draw valid conclusions. As one of the most respected of psychiatric research scientists put it:

Assessment of the relative value of the different forms of treatment for the schizophrenic condition runs into [a] major problem . . . [w]ith the exception of drug-effect studies, the abundance of opinion and prejudice is equalled only by the dearth of scientific evidence.⁴⁷

Primarily because of this lack of adequate research, I do not intend to deal with psychotherapy, which essentially consists of letting people talk themselves out of their psychological dilemmas. Not only is the efficacy of psychotherapy problematical, 48 it is probably unprovable. 49 More important, patients in

- 44. See text accompanying note 6 supra.
- 45. See text accompanying note 12 supra.
- 46. See text accompanying notes 3-5 supra.

47. May, Schizophrenia: Evaluation of Treatment Methods in 1 A. Freedman, H. Kaplan & B. Sadock, Comprehensive Textbook of Psychiatry/II 955 (2d ed. 1975) [hereafter cited as CTP/II].

48. Nor do I intend to embroil myself in the vicious professional squabbles that have characterized the assessment of the efficacy of psychotherapy. I refer those interested in the subject to Malan, The Outcome Problem in Psychotherapy Research, 29 Arch. Gen. Psychiat. 719 (1973).

49. To cite just a few problems, the effects of psychotherapy are long term, and in any long relationship between psychotherapist and patient, effects of individual personalities are likely to be pronounced. In addition, virtually all psychotherapy begins with a process of selection by both the therapist and the patient, so that a random sampling is not

state mental hospitals will not receive psychotherapy. The economics of mental health will always commend pill-taking over other forms of therapy in a public mental hospital. Administering drugs only takes a few minutes of professional time per patient per day; psychotherapy, even if enough psychotherapists were available, would take a few hours of professional time per week. If right-to-treatment suits were to achieve their goal of adequately staffed hospitals, it would cost so much per day that any long-term stay—and all agree that the beneficial effects of psychotherapy only occur after long-term treatment—would be prohibitively expensive.⁵⁰

A. A Hypothetical Situation

Let us now consider a hypothetical person, diagnosed schizophrenic, who stands before a court on a petition to commit him for treatment. The person refuses to commit himself voluntarily and, further, refuses all forms of treatment. There is no evidence of any significant likelihood that he will commit any act dangerous to himself or others. The state's psychiatrists say that they intend to treat him with antipsychotic drugs. Using the analytical scheme set out above, the court must determine whether the treatment will benefit our patient and whether the benefit is great enough, and the drug safe enough, to justify confining him to receive the treatment.

really possible. Also, most psychotherapy patients are likely to be those who can afford it and who do not feel stigmatized by it. In short, it is almost impossible to separate the effects of the process from the effects of the surroundings.

50. Thus when Professor Katz, in his thoughtful article, The Right To Treatment—An Enchanting Legal Fiction?, 36 U. Chi. L. Rev. 755 (1969), talks of coercing patients into accepting psychotherapy in state mental hospitals, he reveals that, as a practicing psychoanalyst, he does not realize what is available, or likely to be available, in public mental hospitals. I might be as little worried about civil commitment as he is if it involved only a short stay during which a psychotherapist tried to talk a patient into talking and agreeing to stay. But this is not what happens or what is going to happen. And since even the most ardent psychotherapists are none too sanguine about the efficacy of psychotherapy on the schizophrenics who comprise the bulk of American mental hospital admissions, I'm not sure that a mental health system based on psychotherapy would be a good thing. One careful study which compared psychotherapy, drugs, and other treatments on newly admitted schizophrenics concluded that

[j]udging by our results, the value of individual psychotherapy alone for the hospitalized schizophrenic patient has been greatly exaggerated in some circles [It] is an expensive and ineffective form of treatment that apparently adds little or nothing to conservative milieu therapy.

P. May, TREATMENT OF SCHIZOPHRENIA 262 (1968) (emphasis deleted).

B. What Are The Antipsychotic Drugs?

The most important and widely used of the antipsychotic drugs is chlorpromazine, marketed by Smith, Kline and French in this country under the trade name of Thorazine.⁵¹ Although this drug was originally synthesized as an antihistamine, a French anesthesiologist discovered that it had a calming quality. Noting this quality, two French psychiatrists tried the drug on schizophrenic patients.⁵² Their positive results produced a "therapeutic revolution" in the treatment of schizophrenia.

The therapeutic revolution initiated by chlorpromazine went far beyond the mere pharmacological effects of the drug. Previously, many mental hospitals had been primarily custodial in character. The fact that clinically significant therapeutic effects could be produced by a drug created an atmosphere that emphasized positive treatment and led to the vigorous application of milieu therapy, psychotherapy, group therapy, and occupational therapy. The greater use of these social therapies was made possible by the control, through medication, of the more disruptive and destructive aspects of the patient's illness. The fate of many patients who would otherwise have been permanent residents of the mental hospital was profoundly altered. Some were able to remain out of the hospital and function in the community. Other patients were discharged to nursing homes or halfway houses. For those remaining in the mental hospital, the hospital became a more humane place. And schizophrenic patients who become ill today can often be treated effectively by antipsychotic medication without hospitalization.53

Chemically, chlorpromazine is a phenothiazine, a word which describes the nuclear structure of the molecule of a number of related chemical compounds.⁵⁴ Some of these related compounds also have antipsychotic properties. While some non-phenothiazines also have these qualities, it is the phenothiazines that are most important among the antipsychotic drugs.

Among the phenothiazines, the literature is the most complete regarding chlorpromazine. In order to keep this Article

^{51.} See KLEIN & DAVIS, supra note 34. These drugs are often called the major tranquilizers, distinguishing them from the minor tranquilizers, like chlordiazepoxide (Librium), diazepam (Valium), and meprobamate (Miltown). Most of those who deal with the antipsychotic agents think that the term tranquilizer is a misnomer because the drugs do more than simply tranquilize psychiatric patients. See, e.g., Mason-Browne, Perphenazine—A Drug Modifying Consciousness, 114 Am. J. PSYCHIAT. 173, 174 (1957).

^{52.} See Delay & Deniker, Le Traitement des Psychoses par une Methode Neurolytique Derivee de l'Hibernotherapie in Congres des Medecins Alienistes Neurologistes de France 497 (1952).

^{53.} Davis & Cole, Antipsychotic Drugs in 2 CTP/II supra note 47, at 1921-22 [hereafter cited as Davis & Cole].

^{54.} See Klein & Davis, supra note 34, at 69-74.

within manageable limits, I will primarily focus my attention on that drug. In general it appears that chlorpromazine is a fair example of the antipsychotic drugs to use for my purposes,⁵⁵ and my sampling of the literature of the antipsychotic drugs other than chlorpromazine indicates that the criticism I direct towards the chlorpromazine studies can be as easily directed towards studies of other drugs.

C. FACTOR ONE: WHAT IS THE LIKELIHOOD THAT A SCHIZOPHRENIC GIVEN ANTIPSYCHOTIC MEDICATION WILL IMPROVE?

As I have mentioned before, our standard for psychiatric evidence ought to be high: certain methodological standards ought to be met before we use a study as evidence of the efficacy of a form of treatment. I do not pretend to have sifted all the studies of chlorpromazine to come up with those with an adequate research design; the published articles on chlorpromazine by now number in the thousands. One of the most comprehensive drug textbooks, however, has done this sifting for me and lists 61 articles reporting research of an adequate design in which chlorpromazine was compared with a placebo. The use of a placebo for comparison is necessary because of the widely recognized placebo effect: that receipt of a sugar pill and no more will cause a significant number of people to recover from their

^{55.} For example, Klein and Davis reviewed "selected studies judged methodologically correct," Klein & Davis, supra note 34, at 55, and found "no clearcut superiority for any one drug." Id. at 60. Moreover, a great deal of research since the early 1960's has been done without placebos but using chlorpromazine for a comparison, on the assumption that it was a drug of proven efficacy. See, e.g., Lasky, Klett, Caffey, Bennett, Rosenblum & Hollister, Drug Treatment of Schizophrenic Patients, 23 Dis. Nerv. Sys. 698 (1962). In such studies, while researchers have found many drugs equal to chlorpromazine, they have thought none clearly superior. See Klein & Davis, supra note 34, at 59 (chart of studies); Davis & Cole, supra note 53, at 1926 (more recent version of same chart). Moreover, chlorpromazine appears to be by far the most popular of the antipsychotic drugs. Klein and Davis report that a survey of physicians showed that half of all phenothiazine prescriptions were for chlorpromazine, Klein & Davis, supra note 34, at 116.

^{56.} Between 1952 and 1957 alone, 1067 studies of the therapeutic effects of chlorpromazine were published; from among these one critic found only 37 that met minimum standards for research design and controls. Heilizer, A Critical Review of Some Published Experiments with Chlorpromazine in Schizophrenic, Neurotic and Normal Humans, 11 J. Chron. Dis. 102 (1960).

^{57.} KLEIN & DAVIS, supra note 34, at 55, table 2. The list is only current through 1969, but more recent updating of table 2 appeared in Davis & Cole, supra note 53, at 1924; it revealed only four additional studies in the intervening six years.

illness, whether that illness be psychiatric or medical.⁵⁸ If there were no placebo comparison, one might think that a given drug was effective when, in fact, the act of giving the pill alone would have caused the cure or improvement, irrespective of the composition of the pill.

But from the studies reported in the textbook we must remove the greater part, for they are not relevant to our hypothetical schizophrenic. A few are irrelevant because they do not deal solely with schizophrenics.⁵⁹ And almost four-fifths of the

58. KLEIN & DAVIS, supra note 34, at 28-29, 52; Bok, The Ethics of Giving Placebos, 231 Scientific American, Nov. 1974, at 17; Porteus, Specific Behavior Changes Following Chlorpromazine, 21 J. Consult. Psychol. 257, 259-60 (1957).

59. I have omitted from consideration eight studies with a mixed population: Casey, Bennett, Lindley, Hollister, Gordon & Springer, Drug Therapy in Schizophrenia: A Controlled Study of the Relative Effectiveness of Chlorpromazine, Promazine, Phenobarbital, and Placebo, 2 ARCH. GEN. PSYCHIAT. 210 (1960) (mixed acute and chronic schizophrenics: 81 percent chronic); Fromm & Forsberg, A Controlled Study on the Value of Chlorpromazine in Allaying Anxiety, 17 Dis. Nerv. Sys. 16 (1956) (21 psychiatric patients with anxiety as a prominent symptom; no indication of number of schizophrenics among those); Gibbs, Wilkens & Lauterbach, A Controlled Clinical Psychiatric Study of Chloropromazine, 18 J. CLIN. EXP. PSYCHOPATH. 269 (1957) (mixed diagnoses; only 10 of 39 experimental subjects diagnosed schizophrenic); Prange, Changing Psychiatric Treatment Patterns and Their Relationship to a Double-Blind Tranquilizer Study in a Teaching Hospital, 3 J. New Drugs 75 (1963) (unspecified number of psychotics mixed with nonpsychotics; no analysis by diagnosis); Rathod & Rees, A Controlled Study of the Prognostic Significance of Autonomic Responses in the Chloropromazine Treatment of Disturbed Psychotic Patients, 104 J. MENT. Sci. 705 (1958) (mixed diagnoses; only 11 of 27 schizophrenic); Seager, Chlorpromazine in the Treatment of Elderly Psychotic Women, 1955 BRIT. MED. J. 882 (48 elderly psychotic women of whom only 13 were schizophrenic; many in hospital "for several years"); Winter & Frederickson, The Short-Term Effects of Chlorpromazine on Psychiatric Patients, 20 J. Consult. Psy-CHOL. 431 (1956) (59 patients of a variety of diagnostic categories); Zeller, Graffagnino, Cullen & Rietman, Use of Chlorpromazine and Reservine in the Treatment of Emotional Disorders, 160 J.A.M.A. 179 (1956) (mixed diagnoses; 102 out of 176 subjects schizophrenic; length of hospitalization unspecified). I have also omitted one study, Wilson, McKay & Sandifer, A Double-Blind Trial to Investigate the Effects of Thorazine (Largactil, Chlorpromazine), Compazine (Stemetil, Prochlorperazine) and Stelazine (Trifluoperazine) in Paranoid Schizophrenia. 107 J. Ment. Sci. 90 (1961), whose drug trials were too short (two weeks on each drug) and whose study population was too small (eight) to produce statistically significant results. See Klein & Davis, supra note 34, at 424 (sample of 30-50 usually necessary to avoid "missing quite sizable drug effects"); Overall, Hollister & Dalal, Psychiatric Drug Research: Sample Size Requirements for One vs Two Raters, 16 ARCH. GEN. PSY-CHIAT. 152 (1967) (sample size needs to be 40-60 to be sensitive even to gross treatment effects).

remaining studies were performed on schizophrenics who were long-term residents of mental hospitals—quite a different type from those outside mental hospitals, like the patient in our hypothetical situation. Being in a hospital a long time "institutionalizes" people⁶⁰ and makes them much less able than their counterparts outside institutions to take care of themselves.⁶¹ Studies showing an improvement in these patients may have no relevance for a patient in our hypothetical situation.

The studies which are relevant to our hypothetical are those concerning the newly admitted or "acute" schizophrenic (the terms appear to be interchangeable), of which there are ten. (For a listing of those ten studies, see Appendix.) Eliminating the

^{60.} See text accompanying notes 139-43 infra.

^{61.} Statistics tell the story: in California in the early sixties the rate of release for patients continually hospitalized more than two years was one to three percent per year. Adelson & Epstein, A Study of Phenothiazines with Male and Female Chronically Ill Schizophrenic Patients, 134 J. Nerv. & Ment. Dis. 543, 544 (1962). Long-term patients appear not to have the capacity to adjust to the outside world. The chlorpromazine studies describe some of the long-term patients who were the subjects of the experiments as "deteriorated," Grygier & Waters, Chlorpromazine Used with an Intensive Occupational Therapy Program: A Controlled Study, 79 ARCH. NEUROL. & PSYCHIAT. 697 (1958), "intractable," Vaughan, Leiberman & Cook, Chlorpromazine in Psychiatry, 268 LANCET 1083 (1955), "institutionalized," Fleming, Spencer & Whitelaw, A Controlled Comparative Investigation of the Effects of Promazine, Chlorpromazine, and a Placebo in Chronic Psychosis, 105 J. MENT. Sci. 349 (1959); or "deteriorated and apathetic," Shepherd & Watt, A Controlled Clinical Study of Chlorpromazine and Reserpine in Chronic Schizophrenia, 19 J. NEUROL., NEUROSURG. & PSYCHIAT. 232 (1956). The average patient in these studies had been hospitalized from five to 18 years, and one patient had spent 57 years in the mental hospital. The lowest average hospitalization in the 37 studies dealing with chronic patients was 5.8 years, Dean & Buker, Schizophrenia Treated With and Without Chlorpromazine, 55 ROCKY MT. MED. J. 47 (April 1958); the highest was 18 years, Sommerness, Lucero, Hamlon & Mahowald, Chlorpromazine: A Controlled Study with Highly Disturbed Patients, 18 Dis. Nerv. Sys. 16 (1957). The patient with 57 years of hospitalization was reported in Porteus, supra note 58. I have also eliminated five studies where patients were labelled "chronic" but no information regarding length of hospitalization appeared, because the term "chronic" seems to connote having been an inpatient for a long period of time. But cf. Bennett & Kooi, Five Phenothiazine Derivatives, 4 Arch. Gen. Psychiat. 413 (1961). Where the studies give the length of hospitalization, this assumption clearly appears to be borne out. Some studies give a figure for duration of illness and not length of hospitalization. Although one study specifically states that duration of illness refers to time elapsed since the first onset of symptoms and not to the length of hospitalization, Roebuck, Chambers & Williams, An Evaluation of the Therapeutic Use of Triflupromazine in Mental Disease, 129 J. Nerv. & Ment. Dis. 184 (1959), I have assumed that where a long-term illness appears, there is a strong likelihood of longterm hospitalization.

studies of chronic schizophrenics does not unfairly weigh the case against chlorpromazine—quite the contrary. Psychiatrists generally expect that acute schizophrenics will respond better to treatment than will chronic schizophrenics, 62 and this appears to be true among the chlorpromazine studies. 63

The studies cited in the Appendix, however, only begin to tell the story. To impart a better notion of the significance of this research, I will briefly analyze the research design and results of the most important single study, the one done by the National Institute of Mental Health Psychopharmacology Service Center Collaborative Study Group, headed by Dr. Jonathan O. Cole⁶⁴ (hereafter referred to as Cole study). Even though this study deals with drugs in addition to chlorpromazine, there are a number of reasons why it is important. First, consider the excellence of its experimental design. Like all other studies cited, the experiment was done double-blind using a placebo and randomly assigning treatment to all newly admitted acute schizophrenics. This ensured that there would be an unbiased selection of patients in the study and in each group within the study. Also, Cole's study used a large number of subjects, 344, to make sure that the sample was unbiased. And it used patients at nine different hospitals "representing an appropriately varied range of psychiatric treatment settings,"65 in order to discover

^{62.} See, e.g., Klein & Davis, supra note 34, at 54.

^{63.} While Klein and Davis found that chlorpromazine was not significantly better than placebo in 11 out of the 61 adequate studies they surveyed, this happened in only one, Rosner, Levine, Hess & Kaye, A Comparative Study of the Effect of Anxiety of Chlorpromazine, Reserpine, Phenobarbital, and a Placebo, 122 J. Nerv. Ment. Dis. 505 (1955), of the ten relevant studies listed in the Appendix. Klein & Davis, supra note 34, at 55, table 2.

In the Rosner study, at no point by any test did either chlorpromazine or reserpine appear significantly better or worse than the inert placebo. Klein and Davis's investigations indicate that the low dosage of chlorpromazine (100 m.g./day) given in the Rosner study may account for the apparent ineffectiveness of the drug. Klein & Davis, supra note 34, at 55. However, since I am presently only counting noses, this study must be counted among those showing chlorpromazine ineffective.

must be counted among those showing chlorpromazine ineffective.
64. National Institute of Mental Health—Psychopharmacology
Service Center Collaborative Study Group, Phenothiazine Treatment in
Acute Schizophrenia, 10 Arch. Gen. Psychiat. 246 (1964) [hereafter cited as Cole].

^{65.} Id. at 247. Two of the participating treatment settings were the psychiatric units of general municipal hospitals in Washington, D.C. and St. Louis. Four were state mental hospitals, three serving urban areas and the fourth a rural area. One was a medium-sized hospital with almost no government support, and the last two were clinics, one in a teaching hospital and the other closely associated with a medical school. Id. at 251.

whether or not the effect of the drug depended on the environment in which the patient received it. Further, Cole's study carefully described the patients included in the study;66 failure to do so makes generalization "difficult and dangerous."67 The psychiatrists thought most of the patients in this group to be "markedly" or "severely" mentally ill at admission.68

The most difficult problem in the drug studies is measuring the effect of psychiatric treatment. Cole's study used the most common method for measuring outcome: a clinician's estimate of whether or not the patient has improved. Psychiatrists in the study rated patients at the end of the study on a seven-point scale ranging from one (very much improved) to seven (very much worse). Using this scale (see Figure 1), Cole discovered a striking difference between the drug and placebo groups: while over 20 percent of the placebo group remained unchanged and another 20 percent got worse, no drug patient worsened and only 5 percent remained the same; 95 percent got better-40 percent much improved and 30 percent very much improved. Similar comparisons between the drug and placebo groups based on the degree of illness after the treatment also showed a marked drug effect (see Figure 2): almost half of the drug group was

- 66. The study included only those patients who had the following characteristics:
 - 1. Newly admitted to the hospital
 - 2. Age-between 16 and 45
 - 3. No significant hospitalization during the 12 months prior to the current admission
 - 4. No evidence of any of the following clinical disorders:
 - a. Childhood autism or childhood schizophrenia
 - b. Chronic or acute brain syndrome
 - c. Mental deficiency, with IQ below 70
 - d. Alcoholism as a significant feature of their clinical history (alcohol intake alone did not disqualify the patient)

 - e. Epilepsy f. Drug addiction
 - 5. Presence of two or more of the following symptoms or behaviors:
 - a. Thinking or speech disturbancesb. Catatonic motor behavior

 - c. Paranoid ideation
 - d. Hallucinations
 - e. Delusional thinking other than paranoid
 - f. Blunted or inappropriate emotion
- g. Disturbance of social behavior and interpersonal relations *Id.* at 247-48.
 - 67. KLEIN & DAVIS, supra note 34, at 423.
- 68. Cole, supra note 64, at 249-50. Psychiatrists rated the patients at both the beginning and the end of the study on a seven-point scale ranging from normal (one) to extremely mentally ill (seven). "Markedly" and "severely" ill were, respectively, the fifth and sixth points on the scale. See figure 2, page 1179 infra.

rated only mildly ill or normal as compared to only 20 percent of the placebo group, and half of the placebo group, as compared with less than 20 percent of the drug group, was rated severely or markedly ill. This is fairly impressive evidence⁶⁹ of the drugs' effectiveness, especially when one recalls that the psychiatrists did not know whether the patients they were rating were receiving the active drug or the placebo.⁷⁰ The other studies cited

70. In some situations experimenters may not be fully in the dark as to the identity of the drug patients. At least one recent study has found that both experimenters and subjects could in fact differentiate the allegedly identical placebo from the active drug on the basis of small physical differences between the substances. The study suggested that further precautions should be taken in future double-blind studies to insure ignorance. Blumenthal, Burke & Shapiro, The Validity of "Identical Matching Placebos", 31 Arch. Gen. Psychiat. 214 (1974).

Let us assume, however, that the placebo was in fact identical, for there is an even more likely source of information that will lead to breaking the blind: the common and annoying side effects of the antipsychotic drugs, see text accompanying notes 145-51 infra. In one study, researchers felt that the inclusion of promazine, in which the occurrence of side effects was highly variable, would confuse the treating psychiatrists and insure that the blind was not broken by guesswork. See Engelhardt & Freedman, Maintenance Drug Therapy: The Schizophrenic Patient in the Community, 2 INT'L PSYCHIAT. CLINICS 933 (1965). In two double-blind placebo studies raters were asked to guess which patients were receiving the active drugs and which were receiving placebo; in both cases, basing their judgment on drug side-effects, some raters were able to pick out the drug patients from the placebo patients with a striking degree of accuracy. Grygier & Waters, supra note 61, at 700 (ward sister picked five out of six drug patients on basis of photosensitivity); Hall & Dunlap, A Study of Chlorpromazine: Methodology and Results with Chronic Semi-Disturbed Schizcophrenics, 122 J. NERV. & MENT. DIS.

The statistics become even more impressive if we include in the final results the patients who were dropped from the research program as "treatment failures"—those whose symptoms so increased that Cole's group felt that retaining them in the research population would do them psychiatric injury. Forty-three subjects dropped out of the study under these circumstances; 36 of them were receiving placebo. Cole, supra note 64, at 248. Since these patients were rated by the psychiatrists as very much worse, our statistics on improvement show that among the drug patients, 3 percent were very much worse, 5 percent had no change, and 92 percent were improved; but that among the placebo patients 33 percent were very much worse, about 15 percent were minimally to much worse, 15 percent were unchanged, and the remaining 37 percent were improved. In sum, almost half the placebo patients got worse, but over 90 percent of the drug patients got better. Treating these dropouts as very much worse was suggested to me by Dr. John Davis, and this seems reasonable. He felt, from his personal knowledge of some of the researchers involved, that this standard was the one they had used for dropping people from the study. At the very least, they were probably rating them as either very much worse or worse, which would explain why only about one percent of the whole study population was rated in those two groups, with none at all rated very much worse. See Figure

in the Appendix generally agree with the Cole study, so that it is fair to say that for the schizophrenic patient who receives drug treatment there is a strong likelihood of improvement; if we use Cole statistics we would predict that 95 percent of patients treated with drugs will show an improvement that a psychiatrist would notice.⁷¹

301 (1955) (basing their judgments on neurotoxicity, psychiatrist correctly guessed 56 out of 61 placebo patients and psychologist guessed 53 out of 63). Another study asserted, without quantifying the evidence for its conclusion, that the

[s]o-called "double blind" method proved impossible at times . . . as it was difficult to disguise the administration of chlorpromazine from physicians and ward personnel because of the frequent side effects of the drug and their absence with the placebos.

Pleasure, Chlorpromazine (Thorazine) for Mental Illness in the Presence of Pulmonary Tuberculosis, 30 Psychiat. Q. 23, 26 (1956).

The Cole study reveals a curious phenomenon which would undercut the ability of the raters to pierce the blind via drug side effects. The researchers discovered that a considerable number of placebo patients developed some of the side effects associated with the active drug:

Treatment Given

	Chlor-			
Side Effect	promazine	Fluphenazine	Thioridazine	Placebo
Drowsiness	53.4%	36.3 <i>%</i>	51.6%	9.5%
Restlessness	46.6	38.5	39.6	39.2
Constipation	33.0	27.5	20.9	12.2
Muscle Rigidity	12.5	24.2	4.4	8.1
Tremor of Hands,	5.7	12.1	13.2	5.4
Arms or Face				

Cole, supra note 64, at 256.

There remains, however, a significant difference in the incidence of side-effects between the drug and placebo groups. This difference, combined with the intuitive notion shared by many psychiatrists that the effective dosage level of a drug is reached only when side effects appear, may well have an influence on the outcome of studies.

71. These studies tend to establish a kind of validity for the diagnosis of schizophrenia. Ennis and Litwack have pointed out that the reliability of psychiatric diagnoses is low. The chances of two diagnosticians agreeing on a diagnosis is fairly small, happening "somewhere in the neighborhood of 40 percent" of the time. Ennis & Litwack, supra note 31, at 702. There is some evidence that the restricted definition of schizophrenia used by psychiatric researchers produces a greater reliability of diagnosis than the experimental results that Ennis and Litwack cited would indicate. For example, Kety reported a 67 percent correlation on the diagnosis of definite schizophrenia between pairs of diagnosticians who evaluated patients from records of interviews in a series of studies concerning the genetics of schizophrenia. Kety, From Rationalization to Reason, 131 Am. J. Psychiat. 957, 960 (1974). This figure is quite a bit higher than that reported by Ennis and Litwack. It is, of course, significant that the three raters in Kety's study had worked a long time in psychiatric research and had "previously discussed and reached some agreement on the criteria for a diagnosis of the three types of definite schizophrenia" with which the study was concerned. Id. at 960.

The Kety study does, however, show something else of significance.

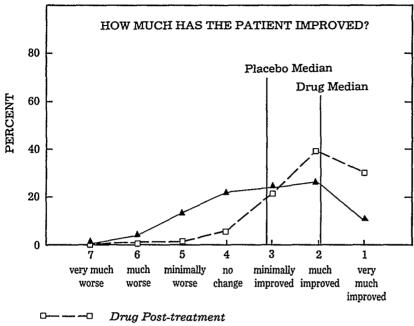
The researchers reviewed the records of 365 persons; in 324 of those cases all raters agreed that there were no signs of schizophrenia; in the 24 cases where at least one rater diagnosed chronic or definite schizophrenia the other two raters saw signs of schizophrenia in all but one case. Thus it would appear that the diagnosis of no schizophrenic symptions is much more reliable than a diagnosis of definite or indefinite schizophrenia or of schizoid personality. To phrase the point somewhat differently, this study shows a high degree of correlation among raters about the symptoms of schizophrenia, but little correlation about the implications of those symptoms. Letter, with enclosure, from Seymour S. Kety to Eugene Z. DuBose, Jr., (Oct. 20, 1975) (on file at Minnesota Law Review).

But even if the diagnoses are no more reliable than Ennis and Litwack report, the striking statistics on improvement do tell us something quite valuable: drugs will reduce the prominence of whatever it is that leads a psychiatrist to label someone schizophrenic. A diagnosis of schizophrenia implies a responsiveness to treatment by antipsychotic drugs

There are three major ways in which medical science has traditionally classified disorders: by symptom pattern, by prognosis, and by response to treatment. See Falek & Moser, Classification in Schizophrenia, 32 Archives Gen. Psychiat. 59 (1975). Virtually all diagnosis in psychiatry has been of the first variety: the illness is defined by the symptoms, and the symptoms are present patterns of behavior, often verbal behavior. This type of nosology is disturbing to many since it only tells us what the patient is doing now, nothing about either what he will do in the future or how his behavior will change in response to treatment. These latter questions are the essential questions in a system of legally enforced, involuntary treatment. Thus, from the lawyer's point of view, psychiatric diagnosis is only significant to the extent that it tells us something significant about prognosis or treatment response, and the assertion in text that a diagnosis of schizophrenia strongly implies something about treatment response is an extremely important advance on prior learning.

In a way, the purpose of this Article is to examine the validity of the psychiatric diagnosis of schizophrenia with regard to prognosis and treatment response, and my formulation of the essential legal issues is in many respects simply a reformulation of a long-standing psychiatric debate about nosology. In part this is due to my decision to approach the treatment issue from the perspective of a specific diagnostic category. Had I chosen to define my issue in terms of the effect of psychiatric treatment on a specific form of behavior-say, for example, violent assaults-this would not have been necessary. The strictures imposed by the available information, however, compelled me to approach the question as I have: there is virtually no research that is not couched in terms of psychiatric diagnosis and that does not measure effect in terms of degree of illness. The effect of treatment on a specific behavior pattern is not a question, apparently, that interests psychiatrists. To them, the question of whether the antipsychotic drugs "cure" schizophrenia is of much greater import. To a great extent this orientation is, I think, due to the fact that psychiatrists are medical doctors, whose previous training has continually focused on the discovery and cure of illnesses. If, for example, most psychiatrists were lawyers, the research would, I'm sure, answer more lawyers' questions. But the research does not answer those questions directly, and the questions that it does answer compel the shape of this Article.

—*Figure 1—
Doctor's post-treatment global rating of improvement.



□ — — □ Drug Post-treatment

Placebo Post-treatment

* 10 Arch. Gen. Psychiatry 246, 252 (March 1964) Copyright 1964, American Medical Association, Reproduced by permission.

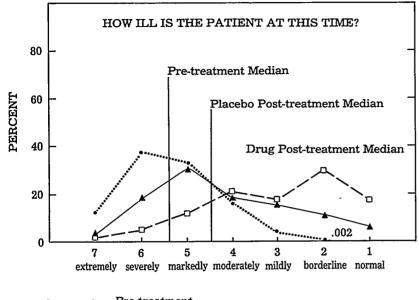
D. FACTOR TWO: WHAT IS THE SCOPE OF THE IMPROVEMENT?

1. The Meaning of Psychiatrists' Ratings of Improvement

Vastly more important than the likelihood of improvement is what "improvement" means, a question that is very difficult to answer from the chlorpromazine studies. Are we dealing with someone who before treatment could not support or feed himself, but who can now care for himself in every way, or with someone formerly a little odd (or maybe a lot) whom treatment has made less odd (or much less)? Answering these questions is not easy because the efficacy studies presume that everyone knows what schizophrenia is and what clinical improvement is. The differences among psychiatrists as to whether a person is

-*Figure 2-

Doctor's pre- and post-treatment global ratings of mental illness.



• Pre-treatment

□ — — □ Drug Post-treatment

Placebo Post-treatment

* 10 Arch. Gen. Psychiatry 246, 253 (March 1964) Copyright 1964, American Medical Association, Reproduced by permission.

schizophrenic⁷² or whether he is improved⁷³ belie this assump-

^{72.} See Ennis & Litwack, supra note 31, at 701-08.

^{73.} Data concerning the concurrence of raters appears in very few of the studies because the results are based either on one rater's opinion, see, e.g., Reardon & Abrams, Acute Paranoid Schizophrenia (Treatment with Chlorpromazine, Trifluoperazine and Placebo), 27 Dis. NER. Sys. 265 (1966); Rosner, Levine, Hess & Kaye, supra note 63, or on a consensus of the staff, see, e.g., Fromm & Forsberg, supra note 59. Occasionally, however, some of the variation does surface. In one study, whose results rested on the evaluations of ten schizophrenics by two psychiatrists, the two differed as to the degree of improvement in at least 50 percent of the cases. Gibbs, Wilkens & Lauterbach, supra note 59. The percentage may have been even higher but the method of reporting does not allow the reader to verify greater discrepancies. In another study, a psychiatrist and a psychologist each rated schizophrenic patients in a doubleblind placebo study. They differed as to degree of improvement in 38 percent of the placebo patients and in 50 percent of the drug patients. Hall & Dunlap, supra note 70, at 305.

tion, but there seems to be very little interest among psychiatrists in making diagnosis more precise, or in developing accurate tools for measuring behavioral changes. There is little research carefully analyzing, in objective terms, either what a diagnosis of schizophrenia indicates about a person or what kinds of changes a judgment of improvement implies. That being the case, we must approach these questions somewhat indirectly.

If we assume that the judgment that a schizophrenic has improved means a reduction in the symptoms of schizophrenia, then by ascertaining those symptoms we should be able to get some idea of what it is that the drugs affect. There are, however, substantial risks in this procedure. In the first place, the diagnosis of schizophrenia may vary idiosyncratically from diagnostician to diagnostician, perhaps so much that the list of classic symptoms tells us very little about what any given diagnosis of schizophrenia reflects. The variation among diagnosticians that Ennis and Litwack report may indicate precisely this phenomenon.⁷⁴ Similarly, the judgment that someone has improved psychiatrically may tell us more about the psychiatrist than it does about the patient. It may, for example, only indicate that the psychiatrist has befriended the patient, or that the psychiatrist has become more accustomed to the patient's behavior. For the moment, though, in order to learn what psychiatrists think antipsychotic drug treatment of schizophrenics achieves, I will lay these concerns aside.

The official definition of schizophrenia, promulgated by the American Psychiatric Association is not particularly helpful.75 It speaks generally of "characteristic disturbances of thinking,

definition of schizophrenia:

AMERICAN PSYCHIATRIC ASSOCIATION, DIAGNOSTIC AND STATISTICAL MANUAL of Mental Disorders (2d ed. 1968).

^{74.} See Ennis & Litwack, supra note 31, at 701-08; note 71 supra. 75. The American Psychiatric Association presents the following

This large category includes a group of disorders manifested by characteristic disturbances of thinking, mood and behavior. Disturbances in thinking are marked by alterations of concept formation which may lead to mis-interpretation of reality and sometimes to delusions and hallucinations, which frequently appear psychologically self-protective. Corollary mood changes include ambivalent, constricted and inappropriate emotional responsiveness and loss of empathy with others. Behavior may be withdrawn, regressive and bizarre. The schizophrenics, in which the mental status is attributable primarily to a thought disorder, are to be distinguished from the major affective disordisorder, are to be distinguished from the major affective disorders which are dominated by a mood disorder. The paranoid states are distinguished from schizophrenia by the narrowness of their distortions of reality and by the absence of other psychotic symptoms.

mood and behavior," and the elaboration of these terms is just as imprecise: disturbances in thinking "are marked by alterations of concept formation;" mood changes "include ambivalent, constricted and inappropriate emotional responsiveness and loss of empathy with others;" and characteristic behavior may be "withdrawn, regressive and bizarre." Obviously these protean terms could comprehend anybody from Walter Mitty to Attila the Hun.

The Cole study gives a slightly more concrete description. Unlike other studies, it tabulated the frequency with which symptoms occurred in the incoming population of acute schizophrenics. The most frequent symptoms were: ⁷⁶

Unrealistic thinking	81%
Severe anxiety	64
Excessive suspiciousness	60
Perplexity or confusion	58
Social withdrawal	55
Auditory hallucinations	47
Blunted affect	38
Overactivity	32
Impending Doom	23
Generalized motor inhibition	18

Since a large number of clinicians, in nine different settings, diagnosed these patients, it is fair to say that the listed symptoms are an average cross-section of those that one would expect to find in a randomly selected, nonhospitalized, acute schizophrenic population. There is some evidence that a similar group of schizophrenics from countries other than the United States would demonstrate similar characteristics.⁷⁷

^{76.} This table was taken from Cole, *supra* note 64, at 249, table 5. The article stated that the tabulation reflected only those symptoms manifested "to a moderate or marked degree." *Id.*

^{77.} Since 1965 the World Health Organization has been sponsoring the International Pilot Study of Schizophrenia, a multinational epidemiological examination of schizophrenia. World Health Organization, 1 Report of the International Pilot Study of Schizophrenia 3-4 (1973) [hereafter cited as IPSS STUDY]. This study eliminated, as I have in this article, long-term schizophrenic patients: it excluded all patients with symptoms continually present for more than three years and those who had been inpatients for more than two of the past five years. Id. at 9. During the research period, April 1, 1968 to April 1, 1969, the nine field reporting centers, in Aarhus, Agra, Cali, Ibadon, London, Moscow, Taipei, Washington and Prague, reported 811 cases of schizophrenia and tabulated symptoms for all patients. Differences in phrasing make it unclear whether some of the symptoms that appear in the Cole study are employed in the IPSS figures, but some of the IPSS statistics are strikingly similar to the Cole statistics: lack of insight (=unrealistic thinking?), 84.1 percent; suspiciousness, 60.2 percent; unwillingness to cooperate (=social withdrawal?), 57.5 percent; auditory hallucinations.

While this list of symptoms still does not provide a very concrete picture of the schizophrenics in the Cole study, it does tell us that when psychiatrists diagnose someone as mentally ill—schizophrenic, in particular—they are primarily concerned with intellectual behavior. At least seven of the ten most common symptoms in the Cole study concern only the patient's thoughts. Putting aside the fact that the information about intellectual disorganization comes mostly from interviews between the patient and the psychiatrist in the psychiatrist's office and may not be reliable,⁷⁸ can we justify forcing drug treatment on a person solely to change the working of his mind?

To the extent that the administration of psychoactive drugs achieves an entirely internal, intellectual change, to ignore a refusal of treatment seems to me to border on the constitutionally impermissible. Although I have constructed a balancing theorum to assess the permissibility of involuntary treatment with antipsychotic drugs, that theorum rests on the implicit proposition that treatment does more than alter ideas and perceptions. Absent that something more, balancing is irrelevant because we find ourselves in the realm of constitutional absolutes. Even if we accept the position that I have rejected, that the doctrine of substantive due process requires only "plausible

42.3 percent. Id. at 182, chart 10.15. This may prove nothing conclusive, since diagnoses may vary radically from nation to nation. See, e.g., J. COOPER, R. KENDALL, B. GURLAND, L. SHARPE, J. COPELAND, & R. SIMON, PSYCHIATRIC DIAGNOSES IN NEW YORK AND LONDON (1972). But it may indicate a difference in either incidence or recording of given symptoms. In the IPSS study it is noteworthy that the frequency of the four symptoms I have listed above varied widely from center to center (ranges: lack of insight 48.5 to 96.5 percent; suspiciousness 41.6 to 81.4 percent; unwillingness to cooperate 30 to 76.3 percent; auditory hallucination 24 to 56.4 percent). And in the case of two of those symptoms the sole American center, Washington, D.C., was at the low extreme (lack of insight in only 48.5 percent of schizophrenic patients; auditory hallucinations in 24.7 percent). IPSS Study, supra at 182, chart 19.15. It is probably a mistake to expect a uniform international profile of symptoms for schizophrenia—or even, perhaps, a uniform profile from one ward of a hospital to another. See Pasamanick, Dinitz & Lefton, Psychiatric Orientation and its Relation to Diagnosis and Treatment in a Mental Hospital, 116 Am. J. Psychiat. 127 (1959) (three ward administrators in same hospital diagnose from 22.1 to 66.7 percent of their patients as schizophrenic).

78. KLEIN & DAVIS, supra note 34, at 424, state:
Most [clinical] evaluations are made in an office-interview setting. Often only minimal information is obtainable from the patient. Patients are frequently at their best in the well structured office situation, whereas on the ward or at home their behavior might be radically different.

arguments"79 in support of a state interest justifying the interference with individual liberty, those arguments are hard to come by in this area. Here there is no significant danger in failing to treat the illness. How does it bother my neighbor that I am suspicious or believe I hear voices? I may annoy him with those ideas, but, as the Donaldson court put it. "[m]ere public intolerance or animosity cannot constitutionally justify the deprivation of a person's physical liberty."80 Perhaps having and expressing these ideas makes life difficult for me, because my fellow men, who think me weird, are less courteous, thoughtful or obliging than they might be. Life in an institution, where those around me either understand or share my weirdness and where I am relieved of the ordinary tasks of daily life, might be easier. But the Donaldson dicta addressed this point too: "the mere presence of mental illness does not disqualify a person from preferring his home to the comforts of an institution"81 and expressed doubt that the institutional ambience is an improvement anyway: "incarceration is rarely if ever a necessary condition for raising the living standards of those capable of surviving safely in freedom, on their own or with the help of family or friends."82 While the court's decision rejected these alleged state interests in involuntary confinement as inadequate only in the context of the state's failure to treat during confinement, it seems logical to extrapolate from the court's opinion that treatment which promoted only those interests would also be constitutionally inadequate to justify confinement.

Furthermore, to justify a confinement on the basis of a purely psychodynamic "benefit" to a patient may invade a constitutionally protected zone of privacy. Mr. Justice Brandeis, in a dissent

^{79.} Tribe, supra note 20, at 18.

^{80. 422} U.S. at 575. This phrase echoed similar language in Coates v. Cincinnati, 402 U.S. 611 (1971), also written by Mr. Justice Stewart, which held unconstitutionally vague a statute forbidding an assemblage of three or more people "in a manner annoying to persons passing by." To the same effect is Mr. Justice Douglas's opinion in Papachristou v. Jacksonville, 405 U.S. 156 (1972), which held unconstitutional a statute making criminals of, among others, rogues, vagabonds, "common night walkers" and "common railers and brawlers." But the Court based both these decisions on the vagueness of the phrasing, on the failure of the statutes to give fair warning to those who might run afoul of them. Donaldson for the first time made explicit the substantive due process notion that was implicit in these decisions: that incarcerating annoying people solely because they are annoying is constitutionally impermissible.

^{81. 422} U.S. at 575.

^{82.} Id.

which has weathered the years better than the opinion with which it differed, felt that the makers of the Constitution "sought to protect Americans in their beliefs, their thoughts, their emotions and their sensations. They conferred, as against the government, the right to be let alone—the most comprehensive of rights most valued by civilized men."83 This notion has no explicit source in any language of the Constitution,84 but seems implicit in our constitutional system. It is only within the past fifteen years, however, that the Supreme Court has begun to give content to Brandeis's noble sentiments.85

For purposes of the problem we have before us now, the most important privacy case is Stanley v. Georgia.86 In arguing for affirmance of Mr. Stanley's conviction for possession of pornographic movies in his home, the state of Georgia asked whether, since "the State can protect the body of a citizen, may it not . . . protect his mind?"87 The Supreme Court answered in the negative, with reasoning akin to that of Mr. Justice Brandeis. In the Court's view, the only possible explanation for Georgia's action was its desire to control Mr. Stanley's "intellectual and emotional needs."88 And this the Court found to be an impermissible state purpose; the state "cannot constitutionally premise legislation on the desirability of controlling a person's private thoughts."89 Thus, although Stanley rested in part on the first amendment, 90 the Court's conclusion that the state purpose was per se impermissible suggests partial reliance on a theory of substantive due process.

The step from Stanley to civil commitment is, in our case, not a difficult one.91 Georgia wanted to remove a certain kind

^{83.} Olmstead v. United States, 277 U.S. 438, 478 (1928).

^{84.} Aware of this, Mr. Justice Holmes observed, as he concurred with Brandeis, that "[c]ourts are apt to err by sticking too closely to the words of a law where those words import a policy that goes beyond them." Id. at 469.

^{85.} See, e.g., Roe v. Wade, 410 U.S. 113 (1973); Eisenstadt v. Baird, 405 U.S. 438 (1972); Griswold v. Connecticut, 381 U.S. 479 (1965).

^{86. 394} U.S. 557 (1969).

87. Id. at 560.

88. Id. at 566.

99. It is not wholly beyond reason to approach the case of our hypothetical patient in first amendment terms when the change the state is seeking is only to change his thoughts. Since the thoughts are only manifested in speech, the state is confining and treating in order to change the content of speech.

^{91.} The Minnesota Supreme Court, expressing its hesitation to define with any precision the right to privacy, did feel that "the core of

of idea from Mr. Stanley's mind—ideas concretely represented by the films that were the basis of the prosecution—in order to protect him from himself, and perhaps to protect others from his ideas, whether in their concrete or abstract form. For similar reasons, we may wish to remove our hypothetical patient's suspicions. In terms of what is important to one's personal integrity, who is to say whether Mr. Stanley's pornography is any more or less essential than our patient's suspicions? I have occasionally heard psychiatrists assert that "there is no right to be psychotic." It may be that not only is there such a right, but that it is a constitutional one.⁹²

2. Other Devices to Measure Improvement: Clinical Rating Scales

Although psychiatrists concern themselves almost exclusively with verbal behavior and thought patterns, they are convinced that the ideas there revealed reflect themselves in patients' non-verbal behavior. To check this belief, I will look

the privacy decisions . . . is the concept of personal autonomy—the notion that the Constitution reserves to the individual, free of governmental intrusion, certain fundamental decisions about how he or she will conduct his or her life," and used this yardstick to measure the state's right to give involuntary treatment to a minor. Price v. Sheppard, 239 N.W.2d 905, 910 (Minn. 1976) (footnote omitted). One author, more precipitate than Minnesota's judges, feels there is no problem at all in jumping from Stanley to all manner of behavioral control, see Shapiro, Legislating the Control of Behavior Control: Autonomy and the Coersive Use of Organic Therapies, 47 S. Cal. L. Rev. 237, 272-76 (1974), and would create a "right to mentation" to protect all sorts of mental functioning. I am not sure I fully understand how such a right works, or what its limits are. I rather suspect, however, that Professor Shapiro and I will not find ourselves much divergent in our attitudes towards substantive problems.

92. One of the important problems with using the Stanley case is its precedential weakness in light of more recent cases. United States v. Reidel, 402 U.S. 351 (1971), decided two years after Stanley, held that although Stanley permitted the possession of pornography, the conviction of a distributor of pornography who mailed only to those who had expressed a desire to exercise their Stanley rights was nonetheless constitutional, and United States v. Orito, 413 U.S. 139 (1973), decided four years after Stanley, held that transporting one's own pornography from one location to another may be criminally punished. Thus Stanley is, if not doubtful, at least isolated. It may be that Stanley will become one of those decisions like Shelley v. Kraemer, 334 U.S. 1 (1948), Reitman v. Mulkey, 387 U.S. 369 (1967), or Robinson v. California, 370 U.S. 660 (1962), that remains a curious island in the stream of the law, never overruled, never influencing the areas of law most closely adjacent to it, but frequently cited by those who want to buttress a novel legal theory.

at techniques other than clinical evaluation by psychiatrists for measuring the effects of the antipsychotic drugs.⁹³ Most of the ten relevant studies (see Appendix) use some sort of standardized rating scale as a device to measure outcome. At first glance one might think that these rather impressively formalized devices will tell us something more about what improvement means.⁹⁴ However, there is virtually no evidence that a given score on a device indicates anything other than that the patient received that score. In fact, most of the "devices" are nothing more than a series of questions about psychiatrically interesting symptoms. An examination of one such device, the Multidimensional Scale for Rating Psychiatric Patients (MSRPP),⁹⁵ should suffice to make this point; it is particularly relevant to our discussion since it was used in four of the ten studies cited in the Appendix.

Developed in 1953 by Maurice Lorr, the MSRPP consists of 62 questions. Forty are answered by a psychiatrist on the basis of

95. See Lorr, Multidimensional Scale for Rating Psychiatric Patients Hospital Form, Veteran's Adm'n Tech. Bull. T.B. 10-507 (1953). Developed from an earlier device, the MSRPP is no longer in use, having been transmogrified into the Inpatient Multidimensional Psychiatric Scale (IMPS). See M. Lorr & C. Klett, Inpatient Multidimensional Psychiatric Scale (IMPS) (1966). Substantively the same as the MSRPP, the IMPS was used in the Cole study; half of the studies

cited in the Appendix used the MSRPP or a variation of it.

^{93.} One technique we need not examine is measurement of the effect of drugs on a patient's release from the hospital. There is a belief in the psychiatric community that when symptoms diminish, a patient will be released from the hospital. Hence drugs are touted because they reduce the amount of time a patient has to stay in the hospital. This drug effect is irrelevant to our considerations. A discovery that antipsychotic drugs reduce the length of hospital stays would justify an argument that involuntary hospitalization for drug treatment will be short, but not an argument that incarceration is justified in the first place.

^{94.} In psychologist's terms, the question we are concerned with is the "validity" of the test: what facts outside the device will be true if the patient produces a certain score on the test? One occasionally sees examples in the drug studies of tests that completely miss the mark. In one study, for example, relatives were asked to rate the level of social aggression over a period of months among schizophrenic outpatients; the relatives' assessments were compared with seven clinical devices that were thought to measure social aggression. There was no significant correlation between the two indicators. Cohen, Freedman, Engelhardt & Margolis, Family Interaction Patterns, Drug Treatment, and Change in Social Aggression, 19 Arch. Gen. Psychiat. 50, 54-55 (1968). Thus whatever it was that the measuring devices thought was social aggression, those who lived with the patients did not. And if those devices were used to measure a patient's aggressiveness, they would be measuring a quantity which had no relevance to the world outside of the hospital.

an interview with the patient; a nurse or psychiatric aide answers the other 22 questions on the basis of ward behavior. The questions themselves relate to conditions that most psychiatrists view as symptoms of mental illness, ⁹⁶ so it is not surprising that in his original publication Lorr reported that a reduction in overall score on the MSRPP correlated with a reduction in number and severity of symptoms in psychiatric patients. ⁹⁷ Indeed, in

33. Does he tend to suspect or to believe on slight evidence or without good reason that some people are against him (persecuting, conspiring, cheating, depriving, punishing) in various ways?

37. Does he tend to suspect or to believe on slight evidence or without good reason that some people talk about, refer to, or watch him?

Lorr, supra note 95, at 34-35. Both these questions can be answered in four different ways, with the following numerical values given to the answers:

- 1 No unjustified suspicions
- 2 Inclined to suspect
- 3 Inclined to believe
- 4 Has firm conviction

Id. It is in this manner that one arrives at numerical scores representing the degree of illness.

97. Lorr, supra note 95, at 10. Lorr cited one other study where the MSRPP was used to measure improvement and noted that the MSRPP showed more improvement in lobotomized patients. That, however, does not prove it is a valid measure of improvement, but only that lobotomized patients get higher scores.

I have located only one other piece of research attempting to validate the MSRPP, and it deals with ward behavior ratings. See Ellsworth & Clayton, Measurement of Improvement in Mental Illness, 23 J. Consult. Psychol. 15 (1959). Having dropped several MSRPP questions as being too unreliable, Ellsworth and Clayton noted that the behavior ratings on the nurse-completed portion of the MSRPP correlated with community adjustment some months after release from the hospital. Community adjustment, however, consisted of another scale, devised for the study. Under this scale 25 psychiatric patients were rated in six areas of social adjustment. Ellsworth and Clayton state that "[t]hese included occupational (or school) adjustment, management of funds, family adjustment, other interpersonal relationships, recreational adjustment, and community adjustment." Id. at 19. No further analysis or discussion is provided by the authors, however, as to what these six areas of "adjustment" represent. Since Ellsworth and Clayton do not tell us what their "adjustment" represents, we are left in the dark. This is particularly distressing in view of the fact that whatever the community adjustment scale did measure is precisely the kind of evidence we need to assess accurately the value of drug treatment for schizophrenics. As it stands, all we know is that if you get a good score on one scale, you will get a good score on another scale.

This kind of approach is typical in the insular world of psychiatry.

^{96.} For example, the following two questions could have been used, one may imagine, to produce the conclusion of the Cole study that 60 percent of acute schizophrenics suffer from "excessive suspiciousness," see text accompanying note 76 supra:

large part the MSRPP is no more than a way of standardizing the psychiatric interview.⁹⁸ In a field where standardization is the exception rather than the norm, this is a worthwhile step.⁹⁹ But it means that studies using the MSRPP and similar devices to measure improvement from drug treatment are unable, to the extent that they merely incorporate a standardized psychiatric interview, to show improvement different in kind from that shown in studies that measure improvement according to psychiatric evaluations. They fail, that is, to demonstrate changes in non-verbal and non-psychodynamic behavior and,

Tests which are really only groupings of symptoms with arbitrary numerical values tacked on are used to prove that treatment is effective. For the most part, all they prove is what the psychiatrist improvement ratings prove: that a rater thinks someone has fewer or less severe symptoms. Yet psychiatrists opine that "[t]he MSRPP has been well validated . . ." Casey, Bennett, Lindley, Hollister, Gordon & Springer, Drug Therapy in Schizophrenia, 2 Arch. Gen. Psychiatr. 210, 217 (1960), which reveals only how carelessly they have examined the literature.

98. Lorr has some rather odd ideas about what his tests prove. Using the IMPS, he noted that the answers to similar questions, like those set forth in note 96 supra, tended to be similar. From correlations such as this he deduced that he had discovered ten psychotic syndromes. See Lorr, McNair, Klett & Lesky, Evidence of Ten Psychotic Syndromes, 26 J. Consult. Psychol. 185 (1962). A critic noted that all he had really proven was that if you ask a person similar questions you will probably get similar answers. Eysenck, Psychoticism or Ten Psychotic Syndromes? 27 J. Consult. Psychol. 179 (1963). But see Lorr, McNair, Klett & Lesky, Canonical Variates and Second Order Factors: A Reply, 27 J. Consult. Psychol. 180 (1963).

99. Lorr, supra note 95, at 9-10, reports a fairly high degree of reliability among users of the scale, as did Kurland, The Comparative Effectiveness of Six Phenothiazine Compounds, Phenobarbital and Inert Placebo in the Treatment of Acutely Ill Patients: Global Measures of Severity of Illness, 133 J. NERV. & MENT. DIS. 1, 4, but in neither case did the study reveal its procedures. The one other study showing a high degree of reliability among various individual users of the MSRPP used standardized interview techniques and questions that the MSRPP did not require or advise and, in addition, adopted "specific 'conventions' ... concerning those items which most frequently showed disagreement in an attempt to reduce inter-rater variability." Stillson, Mason, Gynther & Gertz, An Evaluation of the Comparability and Reliability of Two Behavior Rating Scales for Mental Patients, 22 J. Consult. Psychol. 213, 214 (1958). One must assume that without these precautions, all of which Lorr ignores, MSRPP scores would demonstrate a much greater variation. One other study, which again does not mention precautions against variations, shows a fairly high degree of agreement where the raters consisted of teams that rated by consensus. Klett & Lasky, Agreement Among Raters on the Multidimensional Scale for Rating Psychiatric Patients, 23 J. Consult. Psychol. 281 (1959). Psychiatrists, in any case, have scrutinized the reliability of the MSRPP much more than they have its validity.

therefore, to avoid infringing a patient's constitutional right to privacy as articulated by *Stanley*.

Although the greater part of the MSRPP consists of psychiatric information garnered from psychiatric interviews, about a third of the test consists of questions about the patient's ward behavior to be answered by a psychiatric aide or nurse who knows the patient. The test thus moves beyond mental and verbal behavior to behavior which might be a legitimate concern of the state. Unfortunately the vast majority of questions are about behavior which is either relevant primarily to the smooth administration of the hospital¹⁰⁰ or of only slight interest to society at large. 101 In all, of the 22 questions on ward behavior only four seem to reflect significant state concerns: whether the patient works in the hospital, whether he destroys property, whether he assaults others, and whether he swallows objects other than food. The scores on these items will have only a small impact on the overall score on the test. And while researchers may have data concerning the effect of drug therapy upon these particular responses, they have published none to date. 102 On the whole,

^{100.} There are questions about his eating habits (#41); sleeping habits (#49); adaptability to the hospital routine (#48); amusements (#57); personal hygiene (#53); daily routine (#50); and resistance to the daily routine of the hospital (#55). Lorr, supra note 95, at 37-40. Many of these questions reflect the fact that many of the patients rated have been institutionalized for years.

^{101.} There are a number of questions about talking: does he "swear, curse, or use dirty language?" (#43); "talk to himself?" (#44); "talk if spoken to?" (#52); "talk in a straightforward, sensible way?" (#54); or "speak to others?" (#56). Lorr, supra note 95, at 37-39. There are some about his level of activity: is he "restless?" (#42); does he move faster or slower than average? (#45); is he lively or lethargic? (#46). And some about his sociability: is he "irritable and grouchy?" (#47); "does he like being with people?" (#58); and does he "tease, pick on, brow-beat or bully others?" (#61). This concern with behavior that the legal system would think trivial is typical of ward behavior rating devices. See, e.g., Raskin & Clyde, Factors of Psychopathology in the Ward Behavior of Acute Schizophrenics, 27 J. Consult. Psychol. 420 (1963) (showing similar concerns in Ward Behavior Rating Scale).

^{102.} For example, in the Kurland study all of the MSRPP scores were available for the 187 patients in the study, but "[t]o avoid unwieldiness, excessive length, and overcomplexity in presentation, the present paper will be limited to reporting differences in efficacy of the drugs as measured by the MSRPP total morbidity scores and by psychiatrists' global evaluations of adjustive capacity." Kurland, supra note 99, at 6.

Even when more precise breakdowns of the MSRPP were published, it was done by factors, that is, by groups of questions, and not by individual questions. Hence the question on assaults was weighed equally with the questions on bullying (#61), irritability (#47), hostility (#12), resistance (#55), and profanity (#43). Lorr, supra note 95, at

efficacy studies using standardized devices have concentrated on overall "sickness" as revealed by the total test score, not on specific behaviors. Thus we are left with almost no evidence from controlled studies about the effect of drugs on legally significant behavior. To give the studies their due, however, it must be acknowledged that, since overall scores were clearly

15. Thus an "improvement" in this factor might represent fewer assaults, or less bullying, irritation, hostility, resistance or profanity, or some combination of all six. Interestingly enough, Kurland's study revealed no significant difference between drugs and inert placebo groups with respect to this factor on the MSRPP or on similar devices. Indeed, it was found that everyone, except those who received phenobarbital, calmed down in the hospital; the phenobarbital patients became increasingly hostile and beligerent. See Kurland, supra note 99, at 54. See also Hogarty, Goldberg, Schooler & The Collaborative Study Group, Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: III, Adjustment of Nonrelapsed Patients, 31 Arch. Gen. Psychat. 609 (1974) [hereafter cited as Hogarty] (extensive post-hospital survey of drug effects; all results in terms of factors in rating devices).

103. Occasionally studies deal with some other measuring devices, but those studies show little drug effect. Changes in I.Q. over the period of treatment, for example, seem unrelated to drug effect: the scores generally go up for both drug and placebo patients. See Abrams, Chlorpromazine in the Treatment of Chronic Schizophrenia, 19 Dis. Nerv. Sys. 20 (1958); Reardon & Abrams, Acute Paranoid Schizophrenia (Treatment with Chlorpromazine, Trifluoperazine and Placebo), 27 Dis. Nerv. Sys. 265 (1966) (acute paranoid schizophrenics; on four of the subtests of the Wechsler Adult Intelligence Scale, however, chlorpromazine, one of the two active drugs in the experiment, did produce significantly higher test scores than did placebo). Similarly, chlorpromazine seems to have no effect on the ability of a patient to learn simple motor tasks. Whitehead & Thune, The Effects of Chlorpromazine on Learnings in Chronic Psychotics, 22 J. Consult. Psychol. 379, 383 (1958) (chronic psychotic males).

Although it did not happen in any of the ten relevant studies cited in the Appendix, in some studies researchers have had to ignore findings that chlorpromazine is ineffective in reaching their conclusion that it is effective. See, e.g., Fox, Gobble, Clos & Denison, A Clinical Comparison of Trifluperidol, Haloperidol and Chlorpromazine, 6 Cur. Ther. Res. 409 (1964) (depending on which of three measuring devices one chose, chlorpromazine was either the best or the worst drug in the study). See also Gallant, Bishop, Timmens & Steele, A Controlled Evaluation of Trifluperidol, 5 Cur. Ther. Res. 463, 469 (1963) (concluding that Brief Psychiatric Rating Scale, now one of the most popular measuring devices, was an inadequate measure because, unlike other devices, it failed to

show an improvement on drugs).

As one might expect, research has shown that the interrelationships between various measuring devices vary greatly; one study showed a range from 0 (absolutely no relationship whatsoever) to 0.92 (almost perfect one-to-one correlation. May & Tuma, Choice of Criteria for the Assessment of Treatment Outcome, 2 J. PSYCHIAT. RES. 199 (1964). Hence to some extent the research conclusion about whether the drug is effective is determined by what measuring device one selects.

improved by drugs as compared to placebo, there is some possibility that drugs do affect work, physical aggression, and self-injurious behavior.

Even if ward behavior ratings clearly indicated specific improvement due to drug treatment, however, we would have to be leery of concluding from those results that improvement in the hospital correlates to improvement in the outside world. A study by Ellsworth of inpatient schizophrenics, 104 that collected data from the hospital staff and the patients' families both during and after hospitalization, rejected the hypothesis that a patient who improves in the hospital will function better in the outside world than one who does not. First, the study found almost no correlation between staff and family ratings of patients at the time of admission. The sole exception was that patients whose families thought of them as showing good contact with reality. generally acceptable behavior, and friendship skills, the staff perceived as anxious. In short, people who got along well in the world became upset when they went into the hospital. 105 Thus while hospitals may cure symptoms such as anxiety, 106 they may cause them first. And perhaps what drugs do in reducing those symptoms is not so much cure the patient as help him get used to the hospital.107

Second, the researchers discovered that there was "very little" relationship between the staff's estimate of the patient's condition at release and the family's perception three weeks after release. On only two items was there any degree of correlation. On the whole, Ellsworth's team found that perceptions of the patient's behavior varied more with the situation

^{104.} Ellsworth, Foster, Childers, Arthur & Kroeker, Hospital and Community Adjustment as Perceived by Psychiatric Patients, Their Families and Staff, 32 J. Consult. & Clin. Psychol.: Monograph Supp. 1 (1968) [hereafter cited as Ellsworth].

^{105.} As Ellsworth and his co-workers put it: "for some patients at least, such problems as anxiety, confusion, and hostility may be, to a large extent, hospital-induced phenomena." *Id.* at 31.

^{106. &}quot;Severe anxiety" was the second most common symptom among patients in the Cole study. Cole, supra note 64, at 249 (occurring among 64 percent of patients). See text accompanying note 76 supra.

^{107.} See text accompanying notes 139-43 infra.

^{108.} Ellsworth, supra note 104, at 27.

^{109.} One correlation was that those patients the hospital staff thought "motivated" tended three weeks later to hold jobs and have substantial earnings. One might guess that the staff's judgment about motivation was influenced by the patient's perceptions of whether he would get a job when released. The other correlation was that those the staff thought "friendly and trusting" were those the family said had friends.

—where he was, who he was with, and what he was doing—than with the patient. In other words, the underlying thesis that the well-integrated person functions equally well and with equal success in all circumstances proved false.

The observation that perceptions vary according to circumstances brings out another aspect of the problem of rating behavior and improvement. There are a number of different people and institutions involved in every process of rating behavior, and the interests of each rater may be quite different. 110 A patient's family may not desire the same tractable behavior that the ward staff does, and an employer certainly will want an employee more independent than could be tolerated easily on a well-run psychiatric ward. But, nonetheless, it is the opinion of the ward staff that determines what is perceived as sick and what is perceived as healthy. In any event, the psychiatric rating devices do not appreciably increase our knowledge of the scope of the antipsychotic drug effect on schizophrenics. None of the double-blind efficacy studies cited in the Appendix provides significant evidence in that regard. Since some of the devices include some quantification of behaviors of possible legal significance, we might suspect that there is some effect on these behaviors, but until these effects are more precisely analyzed, we cannot be certain of this. Moreover, the Ellsworth study should make us doubt that measurements taken on the ward will correlate with behavior outside the hospital. To get an idea of the scope of the drug effect, then, we have to look to research evaluating behavior in terms more easily translatable to the legal context.

3. Other Research on Scope of the Drug Effect

There are few off-ward studies of the effects of drug treatment,¹¹¹ and those which do exist are not all of adequate design;¹¹² however, they must suffice.

^{110.} Erickson, Outcome Studies in Mental Hospitals: A Search for Criteria, 39 J. Consult. & Clin. Psychol. 75, 85 (1972) ("There are as many sets of criteria for success as there are interested parties involved.").

^{111.} Off-ward research by psychiatrists is rather unusual. Psychiatrists are medical doctors and, as such, are creatures of the laboratories and the wards; they do not know how to research in the field and, for the most part, do not.

^{112.} See Hogarty, Goldberg & The Collaborative Study Group, Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: One Year Relapse Rates, 28 Arch. Gen. Psychiat. 54 (1973) [hereafter cited as

Job performance: I have found two studies dealing with the job performance of drug-treated schizophrenics. Both reach somewhat equivocal results. One well-controlled study showed that the job performance of outpatient schizophrenics with a poor work history improved on drugs as compared to that of similar patients receiving placebo, but that those with a good work history regressed with drug treatment. 113 Another employment study, made on former psychiatric patients who were part of the Cole study, found that hospitalization and treatment did not return patients to their pre-hospitalization level of functioning: fewer held steady jobs, more did not work, few were working at jobs equivalent to their prior best jobs, and barely half were self supporting.114 Whether these differences between job performance before and after hospitalization were due to the onset of schizophrenia or to other effects of drugs-or of hospitalization, since simply being in the hospital for an extended period of time may cause one to lose his job—is not clear. 115 Nonetheless, the results of both studies make one question the assumption that hospitalization and drug treatment will directly benefit a patient's ability to support himself outside the hospital.

General social functioning: Psychiatrists often contend that inability to function in society is one of the results of schizophrenia. Exactly what they mean by inability to function is difficult to determine. One well-controlled study with schizophrenic outpatients, using a checklist of "15 items describing clearly dysfunctional social behavior," found that drugs significantly alleviated these behaviors. 116 Unfortunately, the study

The Collaborative Study Group] (reporting only two previous adequate studies on the effects of drugs on formerly hospitalized schizophrenics).

^{113.} Engelhardt & Freedman, supra note 70, at 951-52. Work adjustment was measured by number of jobs held, days missed, amount of time worked, and the like.

^{114.} Hall, Smith & Shimkunas, Employment Problems of Schizophrenic Patients, 123 Am. J. PSYCHIAT. 536 (1966). See also Schooler, Goldberg, Boothe & Cole, One Year After Discharge: Community Adjustment of Schizophrenic Patients, 123 Am. J. PSYCHIAT. 986 (1967) (dealing with same subjects as Hall-Smith-Shimkunas study).

^{115.} The Hall-Smith-Shimkunas study, see note 114 supra, does not note which of the patients received drugs and which received placebo during the Cole study. It may be safe to assume that almost all the patients received drugs. Seventy-eight percent of those who completed the study received drugs, see Cole, supra note 64, at 248, and those still in the hospital after the study were treated, most likely, with drugs. See Schooler, Goldberg, Boothe & Cole, supra note 114, at 994 (1967). Still, there must have been some who never received drugs, id. at 991, and it would be interesting to know how they fared.

^{116.} Englehardt & Freedman, supra note 70, at 950.

did not mention what those behaviors were, so the legal system cannot judge whether they were in fact "clearly dysfunctional."117 Moreover, the improvement, which appeared after six months of treatment, ceased later. And apparently the dysfunctional behavior of placebo patients also improved with time. 118

The Hogarty study. 119 which is probably the best and most extensive of those dealing with the long-term social effects of drug therapy on schizophrenics, also suffers, in the legal point of view, from imprecision. This study followed over 100 former patients for a two-year period. The researchers found some significant differences between drug and placebo patients according to a number of devices measuring social adjustment, but the information does not indicate whether any of the differences are legally significant. 120 There are, however, a few important points to be drawn from the study. The great majority of important changes in social behavior were due not to the drug alone, but to a combination of drug and major role therapy ("a combination of intensive social casework and vocational rehabilitation counseling").121 Moreover, almost no major changes occurred

the most consistent and specific findings obtained were in the area of social isolation and social aggression, particularly the type of social aggression which the relative [of the patient who was reporting the behavior] experienced as directly oppositional to his wishes.

Id. at 951. The aggression which this passage speaks of, apparently an inclination to object when a relative opposes him, should not, I think, be termed "clearly dysfunctional." Certainly a patient who does not assert himself is tractable, but asserting oneself has great social utility. Again, the evidence here points to a drug effect similar to that which I have hypothesized that the drug studies show: a more compliant patient.

118. Id. at 952.
119. Hogarty, supra note 102. This study and its findings are not completely relevant to our inquiry. The study dealt with patients who had received chlorpromazine for two months after release from a hospital. It was only after this initial period that the researchers randomly assigned patients to either continued chlorpromazine or a placebo. Hence, as we are looking for comparisons between conditions before and after hospitalization in order to determine what the overall benefits of drugs are, this study is of limited value. On the other hand, insofar as it deals with the long-term social benefits of receiving drugs as compared with placebo, it is important because, within its limits, it does tell us that the drug alone does not seem to affect social functioning in a major way.

120. Curiously, the differences between the groups related only to specific factors; there were no differences between any groups on the basis of total scores on the devices, id. at 612, no overall differences in degree of illness between drug and placebo patients living in the community, that is.

121. Hogarty, Goldberg, Schooler, Ulrich & The Collaborative Study

^{117.} The study did mention that

before 18 months of treatment. Thus, where treatment consists of drugs alone, without long-term counseling of outpatients, as is the case in most public mental health systems, one can not expect significant improvement in general social functioning.

The rate of hospitalization or rehospitalization among schizophrenics treated with drugs versus those treated with placebo has received more attention from researchers than have more specific elements of social adjustment. This is significant to our discussion because in discussing the social disabilities that accompany schizophrenia psychiatrists cite, as evidence of those disabilities, statistics gathered over the past 40 years that show that a high percentage of schizophrenics remain hospitalized for long periods of time.¹²²

The more carefully designed studies do show that continuing drug treatment reduces the rate of hospitalization among schizophrenics. Pasamanick's study, for instance, dealt with newly admitted acute schizophrenics who were randomly assigned to home care with antipsychotic drugs or placebo. After thirty months, although some in each group were hospitalized, the study concluded that over twice as many drug patients stayed out of the hospital as did placebo patients. Hogarty and his associates ran a two-year controlled study with formerly hospitalized schizophrenics that reached the same result. And a third study

Group, Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: II, Two-Year Relapse Rates, 31 Arch. Gen. Psychiat. 603 (1974) [hereafter cited as Hogarty & The Collaborative Study Group].

122. See Lehmann, Schizophrenia: Clinical Features, in CTP/II, supra note 47, at 919-21. As of a few years ago, the average schizophrenic in a mental hospital had been there about ten years. M. Kramer, E. Pollack, R. Redick & B. Locke, Mental Disorders/Suicide at 51, figure 3.6 (1972).

123. B. Pasamanick, F. Scarpitti & S. Dinitz, Schizophrenics in the Community (1967) [hereafter cited as Pasamanick]. The study found that 77 percent of the drug patients remained out of the hospital, while only 34 percent of the placebo patients did. *Id.* at 250. After five years, when the initial program of home care had ceased, the three groups were not significantly different in any respect. A. Davis, S. Dinitz & B. Pasamanick, Schizophrenics in the New Custodial Community: Five Years After the Experiment (1974). The differences, then, were not permanent.

124. Hogarty & The Collaborative Study Group, *supra* note 121. In this study, patients at three aftercare clinics, after a two-month period during which all received antipsychotic drugs, were randomly assigned to one of four groups: drug, drug plus major role therapy, placebo, and placebo plus major role therapy. Defining relapse as "clinical deterioration of such magnitude that hospitalization seemed imminent," The Collaborative Study Group, *supra* note 112, at 55, they discovered that over two years, 80 percent of the placebo patients relapsed while only 48

referred to as the Downstate study, dealing with schizophrenic outpatients only some of whom had formerly been hospitalized, showed similar results over a four-year period. All three studies show that while drugs reduce hospitalization, they do not eliminate it.

On the other hand, an as-yet-unpublished study conducted at Agnews State Hospital in San Jose, California, reached quite a different result. It appears to show that drugs *increase* the likelihood of hospitalization. The researchers chronicled 127 young male inpatients diagnosed as acute schizophrenic. Predictably, those receiving the active drug improved significantly more between admission and discharge than did those on placebo, but between discharge and follow-up (as much as 36 months later) 57 percent of those who received the active drug improved while 79 percent of those who had received the placebo improved. The conclusion was that "[i]n the long run, most patients not given phenothiazine medication do better clinically." Similarly,

percent of the drug patients did. Three-quarters of those who relapsed were in fact hospitalized. Thus, although drugs may reduce hospitalization and rehospitalization, we should not necessarily conclude that this implies a reduction of any socially significant misbehavior.

There is another difficulty with some of these studies. Even if we accept Hogarty's and Pasamanick's conclusions that drugs prevent hospitalization, compare text accompanying notes 126-31 infra, we could not apply their research to the average schizophrenic in the mental health system, because both of their studies used sampling procedures which insured elimination of average schizophrenics. Hogarty rejected alcoholics and transients from his study; this eliminated one-half of the male schizophrenics in the population he was drawing from. The Collaborative Study Group, supra note 112, at 55-56. And Pasamanick eliminated 70 percent of all schizophrenics who entered the local hospital on the basis of the staff psychiatrist's judgment that they were simply not "acceptable" for the program. Pasamanick, supra note 123, at 40, 81 n.1. In short, the patient population on whom these careful studies were performed is significantly unlike the patient population that comes in the door of a mental hospital and hence is significantly unlike our hypothetical patient.

125. See Engelhardt, Rosen, Freedman & Margolis, Phenothiazines in Prevention of Psychiatric Hospitalization, 16 Arch. Gen. Psychiatr. 98 (1967) [hereafter cited as Downstate study]. They found that over a four-year period, only 20 percent of the drug patients were hospitalized while 30 percent of the placebo patients were. Id. at 100. This lower rate is probably due to the fact that not all of their patients had been previously hospitalized.

126. Rappaport, Hopkins, Hall, Belleza & Silverman, Schizophrenics for whom Phenothiazines May Be Contra-indicated or Unnecessary (unpublished study on file at MINNESOTA LAW REVIEW). The study is silent as to whether it was double-blind and so we must assume it was not. This factor of course undermines the study's conclusions.

127. Id. at 9.

while only 8 percent of those who had inactive medication either in the hospital or afterwards had been rehospitalized, 59 percent of those who had taken phenothiazines, either during hospitalization or afterwards, had gone back into the hospital. It almost seems that in this study the medication fostered hospital dependence rather than independence.¹²⁸

At least one other study suggests that drugs are not a factor in the ability of schizophrenics to survive outside a hospital. A recent article by Bockoven and Solomon compared two five-year follow-up studies of mental patients at two separate but similar clinics in the Boston area, 129 only one of which made "extensive use" of antipsychotic drugs. Surprisingly, schizophrenics in each group fared about equally well after five years; 130 drug treatment appears to have had no discernible effect on the ability of these schizophrenics to live outside a hospital. 131

129. Bockoven & Solomon, Comparison of Two Five-Year Follow-Up Studies: 1947 to 1952 and 1967 to 1972, 132 Am. J. PSYCHIAT. 796 (1975).

131. The small number of subjects in the studies of course undermines this conclusion to some extent.

^{128.} The Downstate study noted a similar effect among some schizophrenic outpatients. Rosen, Engelhardt, Freedman, Margolis & Klein, The Hospitalization Proneness Scale as a Predictor of Response to Phenothiazine Treatment, 152 J. Nerv. & Ment. Dis. 405 (1971). They found that among those schizophrenics who tend not to go into hospitals, the use of antipsychotic drugs will increase the likelihood of hospitalization. One other study also discovered that patients receiving placebo during hospitalization were significantly less likely to be hospitalized again within a year after discharge than those who received an active drug. Schooler, Goldberg, Boothe & Cole, supra note 114, at 994. One recent study, on the other hand, showed a "trend towards spending less time in hospital after their release" among drug-treated patients when compared with those who received psychotherapy or milieu therapy. May, Tuma, Yale, Potepan & Dixon, Schizophrenia—A Follow-up Study of Results of Treatment; II. Hospital Stay Over Two to Five Years, 33 Arch. Gen. Psychiat. 481, 486 (1976).

^{130.} Each study followed 100 patients of varying diagnoses. The first study covered the years from 1947 to 1952 (before antipsychotic drugs were generally available), and the second from 1967 to 1972. In the earlier study, 34 of the 40 living schizophrenics on whom data was available remained in the community; the other six returned to the hospital. In the latter study, 30 out of 36 remained in the community, with six again in the hospital. The earlier study's finding—that the vast majority of all psychiatric patients were surviving in the community after five years—was an anomalous one at the time, when it was expected that most mental patients would not return to the community. The hospital in the earlier study did not altogether adhere to that dogma and encouraged independence. The authors of the earlier study thought, prefiguring later writers, see note 139 infra and accompanying text, that "[d]etention in the closed wards of mental hospitals may well have contributed to the deterioration that was expected in schizophrenia." Bockoven & Solomon, Five Year Follow-up Study of 100 Patients Committed to Boston Psychopathic Hospital, 251 N. Eng. J. Med. 81, 85 (1954).

These five studies are inconsistent with one another: we cannot be sure whether drugs encourage, discourage, or have no effect on a patient's independence. There are, however, difficulties in even considering hospitalization or rehospitalization as evidence of poor social functioning. One is that the process of entry into a hospital appears to be random, not determined by the degree of mental illness or social functioning. Another is that hospitals may tend to breed dependence on the institution among mental patients, so that what we may perceive as a symptom of the illness is in fact a side-effect of the cure. Let us deal with these matters one at a time.

First, there is evidence that the decision to hospitalize a patient is determined by random situational factors. Taking 269 consecutive applicants to the psychiatric division of a metropolitan general hospital, Mendel and Rapport analyzed the decision to admit applicants as inpatients. They found that the severity of illness was not a significant factor in admission since symptoms were as severe in those not admitted as in those admitted. To some extent, the experience of the examiner was a factor: those with the most experience admitted about one-third fewer patients than those with the least experience. But, surprisingly, the most significant factors in admission were whether the patient had been hospitalized before, whether the patient had friends, family or some organization that he could turn to for help, and the time of day that the patient appeared. To the extent these are random factors, we should

^{132.} Mendel & Rapport, Determinants of the Decision for Psychiatric Hospitalization, 20 Arch. Gen. Psychiat. 321 (1969).

^{133.} Those with less than six months of experience after their degree and internship admitted 49 percent of the patients they saw; those with more than three years experience admitted 32 percent. Id. at 323. Since those with less experience are likely to be on the evening shifts, the experience and time of admission factors may be closely related, see note 136 infra and accompanying text. Mendel and Rapport, however, did not analyze the data in a way which might show this relationship.

^{134.} Among those who had been hospitalized before, 77 percent were hospitalized; among those who had not been hospitalized before, the figure was 23 percent. There was no distinction in severity of symptoms between those previously hospitalized and those not previously hospitalized. *Id.* at 324.

^{135.} The interviewer in each case recorded on the admission form the patient's "resources for support" from among ten different categories: parents, spouse, children, siblings, friends, work, school, religious group, political group, and club. Those with no resources for support were hospitalized 63 percent of the time; those with three or more resources, only 35 percent. *Id.* at 322, 325.

^{136.} During work hours, nine to five on weekdays, 32 percent of all

question whether the fact of hospitalization indicates anything about either illness or "general social functioning." 137 Hospitali-

applicants were admitted; during all other hours of the day and all day on Saturdays and Sundays, 61 percent were admitted. This reveals an-

other phenomenon. As Mendel put it in a later talk:

Somebody comes to our emergency evaluation center at five o'clock in the evening, schizophrenic, yes, but he has been schizophrenic all his life. Just dropped down from Phoenix, Arizona, a little freaked out, wandering around, looking bizarre and the police bring him in. We know what to do for him: put him back on medication, give him support in our clinic. But the clinic is closed. The social work agencies are closed. We can't do anything until morning. So we give him medication and put do anything until morning. So, we give him medication and put him to bed overnight.

Mendel, Some Experiences with a Proprietary Service Organization, Remarks at 24th APA Institute of Hospital and Community Psychiatry, St. Louis, at 4 (1972) reprinted in edited form as Curricular Reprint Series No. 104, Dep't of Psychiatry, Northwestern University School of Medi-

cine [hereafter cited as Mendel, Remarks].

Mendel's solution to his problem is clever enough to be worth mentioning. Knowing that if seen the next morning, fully one-third of those admitted during the previous night would be immediately released, see Mendel & Rapport, supra note 132, at 327, and that the cost of admitting someone overnight to the hospital was about \$200, Mendel sought an economical solution to the problem:

You can go to a mighty nice hotel and live it up for \$200. Be-

cause of our problems of crowding, we did just that.

Somebody made a big mistake and built the Holiday Inn across the street from LA County Hospital. They weren't able to fill it, and so we were able to work out a contractual agreement to use 30 rooms a night at \$15 a room. We would see patients in our emergency room, give them medication, and house them in the Inn. Since the Inn was across the street, we could guarin the Inn. Since the Inn was across the street, we could guarantee that if anybody got upset, we would have someone over there in two minutes. All they had to do was just let the people go to bed. Now we were able to put people to bed at \$15 instead of \$200. No magic, no psychiatric secrets, just the simple logic of economics.

Mendel, Remarks, supra at 4.

137. Of course, some of these apparently situational factors may well have a personal component. Why is a person without resources? Is it just luck, or does he do something that alienates him from other people? And why have the police brought him in? There is even the possibility that the patient has a subconscious desire to get into a hospital and that that is why he gets admitted. Mendel and Rapport's statistics cannot show how the applicant may have subtly manipulated the decisionmakers to admit him. It would make sense for someone without a bed to sleep in to go to a hospital where he knows he can get one.

This question of patient voluntariness also points up another defect in the drug efficacy studies. Although it is a truism of psychiatry that the patient's desire for treatment will always affect outcome, drug researchers have not tried to distinguish those who desire to be in a hospital from those who do not. They do not generally consider it worth reporting whether or not the patients they are treating are voluntary or involuntary. Perhaps in the case of long-term schizophrenics voluntariness is not a factor; the patient may have been in the institution so

long that he has no real conception of any other way of life.

But at least one study has suggested that for some patients in some

zation may be a better indicium of the social environment and of society's tolerance for unusual people than it is of a patient's level of functioning.¹³⁸

Second, the fact that many schizophrenics remain in hospitals for long periods of time or return again and again to hospitals may not be evidence of the process of disease or of the inability of schizophrenics to exist in society; it may be evidence of what the hospitals do to patients. A number of observers of

situations the voluntariness of admission may be a significant factor in the outcome of treatment. A re-analysis of the Cole study data on acute schizophrenics discussed in text accompanying notes 64-68, NIMH-PRB Collaborative Study Group, Short-Term Improvement in Schizophrenia: The Contribution of Background Factors, 124 Am. J. Psychiat. 900 (1968), showed that among the placebo patients, voluntariness of hospitalization, rated on a five-point scale (1 = patient in favor of hospitalization; 5 = patient opposed), showed a higher positive correlation with positive outcome than any other factor. While the correlation was not tremendously high (.235), and there was virtually no correlation among the drug patients, this study does corroborate the popular psychiatric notion that a voluntary patient will do better than an involuntary one. And it does suggest that voluntariness and the circumstances surrounding admission to the hospital ought to be part of every drug study.

138. A striking example of community tolerance of the mentally ill exists in Gheel, a Flemish village of about 20,000, which has long had a tradition of caring for the mentally ill. Legend has it that in 700 A.D. a beautiful Irish princess, Dymphna, fled there to escape her incestuously inclined father. Unfortunately for her, she ran neither far enough nor fast enough, and when her father caught her, he beheaded her. The princess was canonized for her noble effort to avoid a fate worse than death, and word spread that the reliquary containing her bones would exorcise the devil which caused insanity. Those possessed flocked to Gheel, and by the mid-thirteenth century a tradition of family care of the mentally ill who came but were not cured was well established in Gheel. By 1851, one out of every eleven inhabitants of the city and surrounding farms was mentally ill: one thousand out of a total population of eleven thousand. Earle, A Visit to Gheel, 8 Am. J. Insanity 67 (1851).

In 1960, when the town's population had grown to 20,000, there were 2,100 mental patients in family care, of whom 29 percent were schizo-

phrenic.

The patients, comprising a tenth of the population, are not treated as a separate class. I have seen coffee served in a cafe with as much deference to actively hallucinating psychotics as to anyone else. There are two movie theatres in the town and on a Sunday evening there are as many patients as townspeople in them. I never saw any revulsion or fear displayed towards patients, although many of them act in a bizarre fashion. About a half a dozen incidents of violence have occurred in the past 25 years, two of which resulted in fatalities. Although these were no secret to the populace there was no outcry for more controls.

Dumont & Aldrich, Family Care After a Thousand Years—A Crisis in the Tradition of St. Dymphna, 119 Am. J. PSYCHIAT. 116, 117 (1962). Obviously a difference between the social functioning of a mental patient in Gheel and one in the United States might well be due to the difference in public tolerance.

the process by which a person enters the enclosed world of the mental hospital have concluded that the process is designed to isolate the individual and make him a part of the hospital social structure, dependent on the hospital to fulfill all his needs—in a word, institutionalized.¹³⁹ If the patient who enters the hospital is confused and emotionally upset, he may be particularly vulnerable to this kind of influence. A temporary commitment may create a permanent patient or one who reverts easily to being a patient when the strain of living outside of an institution becomes great.

There is some objective evidence for this theory. Two British psychiatrists examined three London mental hospitals and discovered that a relatively high degree of social complexity in the institution was associated with a shorter average length of stay and a lower re-admission rate.140 In other words, when the patient does for himself in the hospital, he is able to do for himself out of the hospital. Complementing this finding are studies that have shown that treatment in a milieu less restrictive than the closed ward of a hospital produces better results. In a controlled study in a New York hospital, patients of various diagnoses were randomly assigned to inpatient or day patient (spending their nights at home) status; otherwise they received the same treatment. The day patients spent a shorter time in the hospital, were less frequently hospitalized, and lost their psychiatric symptoms more rapidly than the inpatients.141 There were similar results in a Wisconsin clinic that randomly assigned incoming patients to inpatient or outpatient care. 142

^{139.} See E. Goffman, Asylums (1962); D. Rothman, The Discovery of the Asylum (1971); Gruenberg, The Social Breakdown Syndrome—Some Origins, 123 Am. J. Psychiat. 1481 (1967). See also Chambers, Alternatives to Civil Commitment of the Mentally Ill: Practical Guides and Constitutional Imperatives, 70 Mich. L. Rev. 1107, 1127-33 (1972) and the sources cited therein.

^{140.} J. Wing & G. Brown, Institutionalism and Schizophrenia (1970). Social complexity was quantified as the number of different places within the hospital that the patient went during a day, the number of work assignments, the number of choices made by the patient in the course of a day, the number of visitors and the number of off-ground visits without a staff person.

^{141.} Herz, Endicott, Spitzer & Mesnikoff, Day Versus Inpatient Hospitalization: A Controlled Study, 127 Am. J. PSYCHIAT. 1371 (1971). Contra, Michaux, Chelst, Foster & Pruim, Day and Full-Time Psychiatric Treatment: A Controlled Comparison, 14 Cur. Ther. Res. 279 (1972).

^{142.} Stein, Test & Marx, Alternative to the Hospital: A Controlled Study, 132 Am. J. PSYCHIAT. 517 (1975); Stein & Test, Training in Community Living: One Year Evaluation, unpublished paper presented at American Psychiatric Association Meeting in Anaheim, Calif., May 5,

Conversely, if we break the routine of the hospital for inpatients, we may find that many patients who were thought incurably maladjusted are in fact able to exist outside of institutions. A group of researchers in Wisconsin, for example, treated the socially unacceptable behavior of chronic schizophrenics not as an involuntary product of their illness, but as purposive, voluntary behavior designed to manipulate their hospital environment and to relieve them of responsibility. The staff punished this behavior and generally tried to discourage it. As a result 60 percent of the "hopeless" patients abandoned their socially unacceptable behavior and were released to the community during the period of the study. All these studies suggest that the danger of creating a dependence on institutions ought properly to be thought of as one of the risks of treatment in schizophrenia.

To be fair to the hospitalization studies, I think one must admit that they do show that drugs affect behavior in some way—behavior which leads one back to a mental hospital. But since we are unsure what behavior it is that causes someone to enter, to re-enter, or to be committed to a mental hospital, we cannot say with any certainty what the scope of the drug effect is. Hence we must conclude that these studies do not provide evidence of a benefit that is in any way comparable to the life-saving benefit present in *Georgetown* or to the immunity from a deadly disease present in *Jacobson*.

E. FACTOR THREE: WHAT ARE THE DANGERS INVOLVED IN TREAT-MENT WITH THE ANTIPSYCHOTIC DRUGS?

A number of side effects seem to occur in many, if not most, patients treated with antipsychotic drugs. For the most part

^{1975.} After both four months and a year those who had received the outpatient care had better global ratings on symptomatology, spent less time in institutional living conditions, and were less often unemployed than those who received the inpatient care. The difference in employment, however, was not among those independently employed, but grew out of the fact that about a quarter of the outpatient group was in sheltered employment and only one to five percent of the inpatient group was in sheltered employment.

^{143.} A. Ludwig, Treating the Treatment Failures: The Challenge of Chronic Schizophrenia (1971).

^{144.} Use in the studies of a term like "clinical deterioration," see Hogarty & The Collaborative Study Group, supra note 121, at 603, makes it sound as though the standard for relapse was one based entirely on intellectual and verbal behavior.

^{145.} The following discussion is essentially a synopsis of KLEIN & DAVIS, supra note 34, at 94-116.

these side effects are temporary and annoying. At the outset of the drug treatment, but usually not past the first two weeks, patients may feel drowsy; they may also experience a number of annoying autonomic nervous system effects—"dizziness, faintness, weakness, dry mouth, throat and eyes, nasal congestion, nausea, vomiting, constipation, diarrhea, urinary disturbances, blurred vision,"¹⁴⁶ and others.

There are also three categories of effects on the central nervous system, called extrapyramidal side effects: ¹⁴⁷ Parkinsonism, whose symptoms, like muscle rigidity and tremor, mimic Parkinson's disease; ¹⁴⁸ distonias and dyskinesia, which consist of uncoordinated spastic body movements; and akathisia, a restlessness characterized by pacing and fidgeting. These side effects develop within the first few days of treatment with antipsychotic drugs. They can generally be relieved by the drugs which are used to treat Parkinson's disease and cease with termination of the antipsychotic medication.

The more serious side effects are of several varieties. Some patients are allergic to the drugs. About one patient in 1000, for example, will develop a benign jaundice that disappears

^{146.} KLEIN & DAVIS, supra note 34, at 102-03. These effects all appear in widely varying incidences, with the variation probably due to differences in the observer's definitions. For example, drowsiness was reported in one study to occur in 96 percent of patients, Blair & Brady, Recent Advances in the Treatment of Schizophrenia: Group Training and the Tranquilizers, 104 J. Ment. Sci. 625 (1958), while another study found drowsiness in less than 10 percent of the patients, Goldman, The Results of Treatment of Psychotic States with Newer Phenothiazine Compounds Effective in Small Doses, 235 Am. J. Med. Sci. 67 (1958). In any case it is likely that any given patient will display some of the side effects associated with the antipsychotic drugs. See Klein & Davis, supra note 34, at 96-97, table 9, (listing incidence of side effects by drug; statistics produced by combining all studies). The incidence of some of the most common side effects were set forth in the Cole study, see note 70 supra.

^{147.} They received this name because they affect the extrapyramidal nervous system, a nonvoluntary nervous system controlling functions like body posture and the coordination of voluntary movements. It is distinguished from the pyramidal system, which passes through part of the brain in bunches of nerves called pyramids and controls voluntary, learned, motor activity. See J. Chusid, Correlative Neuroanatomy & Funtional Neurology 16 (15th ed. 1973); A. Gatz, Essentials of Clinical Neuroanatomy and Neurophysiology 7-9, 110, 119-23 (4th ed. 1970).

148. The effect is to mimic, not to create, Parkinson's disease. One

^{148.} The effect is to mimic, not to create, Parkinson's disease. One student piece appears to confuse the syndrome, which is temporary, with the disease, which is permanent and degenerative. See Note, Conditioning and Other Technologies Used to "Treat?" "Rehabilitate?" "Demolish?" Prisoners and Mental Patients, 45 S. Cal. L. Rev. 616, 626 n.55 (1972).

within a few weeks, although on rare occasions the liver may function abnormally for as long as six months or a year. Other side-effects, three in particular, appear regularly: skin and eye changes, tardive dyskinesia, and agranulocytosis. Eye and skin effects are related to high dosage, long therapy, or both, and appear in from one to thirty percent of all patients receiving antipsychotic drugs. The skin may become quite sensitive to sunlight and turn gray, blue, or purple on exposure to the sun. In the eye, fine particles may appear in the lens and cornea and grow to areas of opacity. In some cases these opacities may persist for as long as six months after cessation of drug therapy.

Tardive dyskinesia is an extrapyramidal syndrome common among patients who have received antipsychotic medication for long periods of time. It is

characterized by . . . sucking and smacking movements of the lips, inconsistent lateral jaw movements, as well as the rhythmical forward and backward (sometimes lateral) movement of the tongue ("fly-catcher movement"). Other parts of the body are usually only mildly affected. Choreiform-like movements can occur, with jerky sometimes athetoid movements of the extremicies, particularly of the fingers, ankles and toes. Tonic contractions of the neck and back muscles are sometimes seen. Swallowing may become a problem with consequent weight loss. There may be disturbances in respiratory rate, rhythm and amplitude. 150

The syndrome may persist for years, even if the patient stops taking the drug. Curiously, cessation of the drug may also precipitate tardive dyskinesia. Although the syndrome sometimes disappears with even higher doses of phenothiazines, there is as yet no effective treatment for it.¹⁵¹

^{149.} Davis & Cole, Antipsychotic Drugs in 2 CTP/II, supra note 47, at 1936-37.

^{150.} KLEIN & DAVIS, supra note 34, at 99. In the studies Klein and Davis surveyed, researchers discovered tardive dyskinesia in anywhere from 5.2 percent to 24.7 percent of chronically hospitalized patients; the average from all of the studies was 18 percent. Id. at 99-100. Crane's survey of more recent literature (17 studies between 1967 and 1971) showed a frequency of from 0.5 percent to 40 percent. Crane, Persistent Dyskinesia, 122 Brit. J. Psychiat. 395, 396 table 1 (1973). While many of these studies deal with chronic, old patients, in whom the syndrome could be due to such causes as age or neurological disease, the syndrome seems to appear most often among long-term inpatients who have been taking antipsychotic drugs. On the basis of its high incidence in this latter group and its infrequency among the untreated, Crane concluded that there was "compelling evidence to indicate that tardive dyskinesia is related to the use of phenothiazines or similar agents." Id. at 397.

^{151.} Gardos & Cole, Maintenance Antipsychotic Therapy: Is the Cure Worse than the Disease? 133 Am. J. PSYCHIAT. 32 (1976).

These two side effects, skin and eye changes and tardive dyskinesia, must be considered predictable risks in treatment, particularly in long term or high dosage treatment.¹⁵²

The third, and most serious, side effect is agranulocytosis, which involves a precipitate disappearance of white blood cells and consequent exposure to immediate infection. It usually appears within the first six weeks of treatment and is fatal in 30 percent or more of the cases; ¹⁵³ if the patient survives the initial phase and treatment is stopped, the blood becomes normal in about seven to ten days. If we accept Hollister's estimate that agranulocytosis will occur in one out of every 3000 patients treated with chlorpromazine¹⁵⁴ and that 30 percent of the cases

152. Leff and Wing concluded:

There are definite hazards associated with long-term phenothiazine treatment. Irreversible and incapacitating dyskinesias can develop, serious pigmentation of the cornea and lens can occur, and there have been reports of cardiac vascular complications. ... These are cogent reasons for attempting to expose as few people as possible to long-term phenothiazines.

Leff & Wing, Trial of Maintenance Therapy in Schizophrenia, 3 BRIT. MED. J. 599, 603 (1971) (emphasis added).

153. Davis & Cole, Antipsychotic Drugs in 2 CTP/II, supra note 47, at 1937.

154. Hollister, Complications from Psychotherapeutic Drugs—1964, 5 CLIN. PHARMACOL. & THER. 322, 325 (1964). A number of authors speak of the risk as "relatively small," Baldessarini & Lipinski, Risks vs. Benefits of Antipsychotic Drugs, 289 N. ENGL. J. MED. 427, 428 (1973), while others refer to it as "not infrequent." Ananth & Beszterczey, Treatment of Psychosis Subsequent to Phenothiazine-Induced Agranulocytosis, 14 COMPR. PSYCHIAT. 319, 322 (1973). While exact figures may be hard to come by, Davis and Cole's estimate of the incidence at "about one out of 500,000 patients," Davis & Cole, Antipsychotic Drugs in 2 CTP/II, supra note 47, at 1937, seems unduly sanguine and is belied by the fact that by June 1965, the Panel on Hematology of the American Medical Association Registry on Adverse Reactions, Council on Drugs, had accumulated 138 reports of agranulocytosis in cases where the only drug involved was a phenothiazine. Pisciotta, Agranulocytosis Induced by Certain Phenothiazine Derivatives, 208 J.A.M.A. 1862, table 1 (1969). If Davis and Cole are correct, then at least 69 million persons had been treated with phenothiazines by that date. Yet only about one percent of the population is thought to be schizophrenic, see Falek & Moser, Classification in Schizophrenia, 32 ARCH. GEN. PSYCHIAT. 59, 60-61 (1975). The studies Klein and Davis surveyed led them to estimate the incidence at 0.32 percent for patients receiving chlorpromazine, the antipsychotic drug for which, because of its popularity, most information is available. KLEIN & DAVIS, supra note 34, at 96, 115-16. See Carfagno & Magee, Granulocytopenia Due to Chlorpromazine, 241 Am. J. Med. Sci. 44 (1961) (11/1000 over four year period); Pisciotta, Ebbe, Lennon, Metzger & Madison, Agranulocytosis Following Administration of Phenothiazine Derivatives, 25 Am. J. Med. 210 (1958) (18 cases among 3,000 patients). Moreover, the most careful study I have found, which was based on 37,400 leukocyte counts made over an eight-year period on 6200 clinic patients receiving phenothiazines, specifically intended to discover agraare fatal, then there is one chance in 10,000 that a patient treated with chlorpromazine will die from that treatment. The chances of a fatal outcome are small, but certainly not inconsiderable, especially when we are considering imposing the treatment over the patient's refusal.

In addition to these purely physical dangers, certain social dangers must be reckoned with in evaluating drug treatment of schizophrenics. I have already mentioned that the danger of institutionalization—becoming dependent on a mental hospital—should be considered one of the dangers of hospitalization and treatment. Another similar danger is that since the drug effect is not a permanent one, we will have to confine an involuntarily treated schizophrenic indefinitely in an institution or elsewhere. The action of the drugs is less like that of an antibiotic, which cures an infection and no longer need be taken, than like that of a diabetic's insulin, which he must take all his life to maintain his body's chemical balance.¹⁵⁵ While some schizophrenics in all

nulocytosis, found five cases, or one per 1240 patients. Pisciotta, Agranulocytosis Induced by Certain Phenothiazine Derivatives, supra at 1864. If anything, then, the Hollister estimate seems conservative.

155. Klein and Davis report that all the adequate studies that have investigated the matter show that when an active antipsychotic drug is replaced by placebo under double-blind conditions, there is a significant increase in symptoms. Klein & Davis, supra note 34, at 68-72. Again, all but two of the nine studies they report were concerned with long-term patients—and the difference between those patients and our hypothetical patient may be quite significant—but two studies, one of which is included in Klein and Davis's compendium, do confirm the thesis that a withdrawal of antipsychotic drugs will result in a recurrence of symptoms in schizophrenic patients other than those chronically hospitalized.

Gross and his co-workers studied a group of 90 outpatients, 82 of whom were schizophrenics, some of whom had been long-term inpatients, and all of whom were receiving antipsychotic drugs (over two-thirds of them for more than two years). See Gross, Hitchman, Reeves, Lawrence & Newell, Discontinuation of Treatment with Ataractic Drugs, 116 Am. J. Psychiat. 931 (1960). The experimental group, consisting of 56 patients, received smaller and smaller doses of their drug in identical capsules, until they were finally, after a period ranging from four weeks to five months, receiving only a placebo; control patients continued to receive a maintenance dose of drugs. Over a seven month period, under double-blind conditions, 41 of the 56 experimental patients (73 percent) relapsed—17 relapses occurring during the period of withdrawal—while only three of the 34 controls (9 percent) relapsed. Leff and Wing studied a group of 30 British patients nonrandomly selected out of a pool of 116 patients who had recovered from an attack of acute schizophrenia and were receiving maintenance doses of antipsychotic drugs. See Leff & Wing, supra note 152. In a double-blind trial 10 of 12 patients (83 percent) on placebo relapsed, while only six of 18 drug patients (33 percent) relapsed within one year. As Leff and Wing point out, the difference between American and British diagnostic practices "renders difficult

studies survive in the community without drugs and without the recurrence of symptoms, the others relapse when they stop taking drugs. Moreover, available studies show that a large percentage of patients receiving antipsychotic medication will stop

any comparison between American and British studies on schizophrenia," id. at 599, but since their study confirms the results reached in all American studies, and since the British diagnosis of schizophrenia tends to be narrower than the American, it is fair to use this study as a proof of the effect of withdrawal of drugs on most American schizophrenics.

The success of the antipsychotic drugs with schizophrenics and the fact that withdrawal leads to a reappearance of symptoms have spawned a number of etiological hypotheses about schizophrenia that postulate a long-term chemical imbalance or deprivation. See, e.g., Stein & Wise, Possible Etiology of Schizophrenia: Progressive Damage to the Noradrenergic Reward System by a 6-Hydroxydopamine, 171 Science 1032 (1971).

156. See, e.g., Hogarty, supra note 102. (20 percent of all placebo patients survive in community after two years). There seems as yet to be no reliable way to tell which patients will survive on placebo. For example, the Downstate research team attempted to produce a scale that would predict which schizophrenic outpatients receiving a placebo would eventually be rehospitalized. See Rosen, Engelhardt, Freedman, Margolis, Rudorfer & Paley, Prediction of Psychiatric Hospitalization, 80 J. ABN. PSYCHOL. 271 (1972). They tested their scale on 149 patients who were seen by their clinic from a minimum of two weeks to a maximum of 109 months. Of those predicted to be "hospital prone," 56.5 percent ended up in the hospital; of those predicted non-prone, 10.5 percent. The sample they dealt with had about 60 percent predicted hospital prone, but other of the Downstate group's publications indicate that the normal incidence of hospital prone patients is 25 to 30 percent of the schizophrenic population. See Engelhardt, Rosen, Freedman & Margolis, Phenothiazines in Prevention of Psychiatric Hospitalization, 16 Arch. Gen. PSYCHIAT. 98 (1967). If that is the case, then testing a sample of 100 schizophrenics will produce a group of 25 who are labelled hospitalprone, of whom 14 will actually be hospitalized within a period of about five years. (No figure on average length of treatment is given in the Rosen article; this is a rough mean taking the minimum period, two weeks, and the maximum, 109 months, that a patient might have remained in the study.) Among the seventy-five who are predicted nonprone, eight will be hospitalized. Such a test is reasonably accurate; it identifies 14 out of 22 who will actually go into the hospital (64 percent). On the other hand, it also predicts that 11 will be hospitalized who in fact will not. Thus it is not a test upon which we would want to base a legal decision. We would not, for example, want to extend indefinitely the care and confinement of the hospital-prone on the basis of our suspicion that they need continuing treatment; that would mean unnecessarily confining thirteen patients out of every one hundred. Where liberty is in the balance, we ought to require a higher degree of accuracy. Moreover, taking drugs will not necessarily prevent relapse in all cases. Although other research indicates that drugs may prevent hospitalization under some circumstances, see text accompanying notes 123-24 supra, the Downstate group discovered in the Rosen study that the percentage of the hospitalized was marginally higher among those receiving chlorpromazine (59.4 percent) than among those receiving placebo (56.7

taking it once they are out of the hospital. 157 This fact necessarily belies one or the other of two assumptions implicitly relied on by those who would confine and involuntarily treat the mentally ill because they are incompetent—that if they were competent they would take their drugs, and that if they took the drugs they would become competent. Thus, assuming we are willing to incarcerate the patient in the first place in order to administer drug treatment, we must be ready to incarcerate him again when he fails to take his drug outside the hospital. And indeed, as attendance at a mental health court might demonstrate. 158 many of the patients now returning again and again to mental hospitals (the "revolving door syndrome," as it has been termed) have refused or neglected to take medication and are returned to the hospital solely in order to resume drug treatment.

The logic of the parens patriae position could lead us even further—to maintain that when a patient refuses to take medication that has had a beneficial effect in the past, we ought to commit him indefinitely.¹⁵⁹ We should recall at this point that tardive dyskinesia and the skin and eye problems mentioned above are associated with the long-term treatment that such a commitment would involve. 160

A third type of danger associated with the involuntary treatment of schizophrenia inheres in the vagaries of the diagnostic process. If it is true, as Ennis and Litwack contend, 161 that

percent). Thus it appears that use of the drug by those who are likely to go back into the hospital has almost no relation to actual rehospitaliza-

^{157.} See The Collaborative Study Group, supra note 112 (138 out of 374 outpatients in study ceased taking or were grossly irregular in taking their medication within the first year of study). This is at least some evidence of error in the assumption, see Stone, Comment, 132 Am. J. PSYCHIAT. 829 (1975), that the treatment imposed upon a patient is something he would choose for himself were he compos mentis. The drug putatively renders him competent to make decisions, yet in the Hogarty study over one-third of those competent decisions were to stop taking drugs.

^{158.} I have observed mental health court judges who, when faced with a former mental patient who admits some trivial delusional symptom (e.g., that he believes the FBI is controlling his activities via a device implanted in his brain), will commit the patient anew in order to get him to take his medication. I have also seen judges willing, in similar cases, to forego commitment on the promise of the patient and, almost invariably, his attorney, that he will take medication.

^{159.} A less drastic version of this position, that we commit the patient until he promises to take his medication, implies a purely coercive use of the hospital and is no less distasteful.

^{160.} See note 152 supra.161. See Ennis & Litwack, supra note 31, at 702.

the chances that two psychiatrists will agree on a specific diagnosis are about 40 percent, then a serious equal protection problem arises from the fact that selection for involuntary treatment will to a large extent depend on the totally random and irrelevant factor of which psychiatrist happens to be doing the diagnosing. If the literature were arranged in such a way that one could tell which characteristics or behaviors drug treatment will modify, then one might be able to deal with the diagnostic variation by selecting patients on the basis of "curable" characteristics and not on the basis of diagnosis. But unfortunately, the literature primarily describes research subjects by diagnosis and proves effectiveness by overall assessments of psychiatric state.

Another problem related to the diagnostic process is that if we employ diagnostic criteria other than those used by the researchers in the studies, we have no assurance that the patients treated, although plausibly labelled schizophrenic, will react as did those in the studies. Psychiatrists involved in research may tend to agree as to diagnosis more often than Ennis and Litwack would indicate, 162 but that is no guarantee that the public mental hospital's diagnoses will be anything like the researchers' diagnoses. Those who make the diagnoses in the experimental situation are trained researchers, probably the cream of the psychiatric crop, and may share assumptions about schizophrenia. The psychiatrist in a public mental hospital is likely to be less well qualified and to make different kinds of diagnoses. 168 All in all, there seems to be a fairly substantial risk that our hypothetical patient will differ significantly from those on whom treatment has been shown effective.

F. FACTOR FOUR: WHAT ARE THE DANGERS OF FAILING TO TREAT?

This section deals with the inherent dangers of schizophrenia to the patient and to society. There is very little evidence about

^{162.} See note 71 supra.

^{163.} There is some concrete evidence that research psychiatrists and public hospital psychiatrists diagnose patients differently. Of 247 consecutive patients admitted into a psychiatric ward of a New York general hospital, 41 were diagnosed as paranoid schizophrenics. Researchers found, though, that only two of those 41 satisfied "research criteria" for schizophrenia. Abrams, Taylor & Gaztanaga, Manic-Depressive Illness and Paranoid Schizophrenia, 31 Arch. Gen. Psychiat. 640 (1974). See also Morrison, Clancy, Crowe & Winokur, The Iowa 500: Diagnostic Validity in Mania-Depression and Schizophrenia, 27 Arch. Gen. Psychiat. 457 (1972). This does not prove that either set of diagnosticians were right or wrong, but it does prove that psychiatric researchers and practitioners do not share a common set of diagnostic criteria.

this aspect of schizophrenia; what there is concerns crime and suicide rates among schizophrenics. Since crime and suicide are quintessential examples of behavior harmful to patient or society, it is fair to examine the evidence with regard to them to discover whether schizophrenics as a class are more dangerous than are members of the general public. In general, it appears that schizophrenics commit suicide and serious crimes at slightly higher rates than the general population, but not at rates high enough to justify involuntary treatment. Moreover, I have found no evidence that drug treatment of schizophrenia in any way reduces suicide or crime rates among schizophrenics.

Serious crime among schizophrenics: The evidence that schizophrenics commit crime at rates significantly different from the non-schizophrenic members of the population is slight. The studies focus either on the incidence of mental illness among criminals or on the incidence of crime among the mentally ill. Studies of 223 randomly chosen convicted criminals handled by the Missouri Department of Probation showed only one percent schizophrenic the same percentage as in the general population. And even if the study had included as psychotic those criminals who had avoided the Probation Department because

^{164.} Guze, reporting after a review of the literature, concluded that "[t]here is no complete agreement as to whether any of these conditions [psychosis, schizophrenia, primary affective disorder, or the various neurotic disorders] is more common among criminals than the general population, but it is clear that these disorders carry only a slightly increased risk of criminality if any at all." S. Guze, CRIMINALITY AND PSYCHIATRIC DISORDERS 130 (1976).

^{165.} Because of my belief that arrest rates are a poor indicium of the commission of crime, I do not intend to deal with studies concerning the arrest rates of former mental patients. Arrest only indicates that police suspect the commission of a crime. Moreover, as we know from the fact that they often enter the hospital in the company of a policeman, see Gilboy & Schmidt, Voluntary Hospitalization of the Mentally Ill, 66 Nw. U.L.R. 429, 440 (1971), mental patients make police suspicious. And at any rate, the general conclusions of the studies concerning arrest rates are not significantly different from the conclusions in the text: mental patients or schizophrenics, as compared with the general population, are arrested at the same or at only slightly higher rates. See Zitrin, Hardesty, Burdock & Drossman, Crime and Violence Among Mental Patients, 133 Am. J. PSYCHIAT. 142 (1976) (reviewing literature and reporting study at Bellevue Hospital in New York).

^{166.} Guze, Goodwin & Crane, Criminality and Psychiatric Disorders, 20 Arch. Gen. Psychiat. 583 (1969); Guze, Tuason, Gatfied, Steward & Picken, Psychiatric Illness and Crime with Particular Reference to Alcoholism: A Study of 223 Criminals, 134 J. Nerv. & Ment. Dis. 512 (1962).

^{167.} One felon was diagnosed schizophrenic in both studies; two others were found schizophrenic in one study but not the other. See Guze, Goodwin & Crane, supra note 166, at 588.

either an insanity plea or the development of insanity during imprisonment had sent them to the state hospital for the criminally insane, the "combined prevalence [of schizophrenics and other psychotics would not have been] very different from that expected in the general population." A similar study conducted in the Netherlands reached much the same conclusion. 169

Perhaps even more striking is a study of 500 consecutively admitted patients at a Washington University psychiatric clinic.¹⁷⁰ Although four percent of the group had felony convictions, none of the more than 200 diagnosed as suffering from schizophrenia, schizophreniform illness, or affective disorder was among that four percent. While it is unclear whether it is the felony-committing non-schizophrenics or the non-felonious schizophrenics who are abnormal, since the study gives no comparison with the population at large, the study at least strongly suggests that there is no tie between schizophrenia and criminal acts.

These studies, however, fail to account for those persons who have committed crimes but leave the criminal system prior to conviction because of either incompetence to stand trial or incarceration via civil commitment. This may well be a significant number of those who enter the criminal system.¹⁷¹ Also the studies do not take into account those persons whose criminal conduct is never detected or prosecuted. One careful West German study seems to have taken these problems into account.¹⁷² The researchers focused on violent offenses, where the rate of solution was over 90 percent and where there would be a high likelihood of discovering psychopathology. Moreover, they did not confine their survey to court and police records, but also drew cases from the records of the state mental hospitals where

^{168.} Id., at 589.

^{169.} Among a population of 500 convicted Dutch criminals whom the court had sent to a psychiatric clinic for evaluation prior to sentencing, only one clear diagnosis of schizophrenia emerged. Kloek, Schizophrenia and Delinquency: The Inadequacy of Our Conceptual Framework, in The Mentally Abnormal Offender 19 (A. de Reuck &. R. Porter eds. 1968) (citing author's study appearing at 67 Folia Psychiatrica Neurologica et Neurochirurgica Neerlandica 176 (1964)).

^{170.} See Guze, Woodruff & Clayton, Psychiatric Disorders and Criminality, 227 J.A.M.A. 641 (1974).

^{171.} In 1967, 52 percent of those in state mental hospitals who had arrived through the criminal justice system were there prior to conviction. P. Scheidemandel & C. Kanno, The Mentally Ill Offender 20 (1969).

^{172.} See Haefner & Boeker, Mentally Disordered Violent Offenders, 8 Social Psychiat. 220 (1973).

offenders went for treatment, preventive detention, or evaluation. They discovered that although the combined incidence of psychosis, retardation, or severe organic brain syndrome among the violent offenders was the same as in the population at large, schizophrenia appeared among the violent offenders 1.7 times more often than one would have expected in a random sample of the population. The absolute rate of violent crime among schizophrenics, however, was still quite low. There were five violent offenders per 10,000 schizophrenics over a ten-year period.

Obviously we cannot apply these statistics wholesale to the situation in this country; our nation has much more violent crime than West Germany, and an annual rate of five violent crimes per 10,000 among schizophrenics would be much lower than the rate in the American population at large.¹⁷³ But if American schizophrenics, like German schizophrenics, committed violent crimes at 1.7 times the national rate, this would mean, on the basis of 1973 figures, for example, that one American schizophrenic out of every 6325 would commit a murder.¹⁷⁴ Assuming, for the sake of argument, that drug treatment would reduce this rate to that present in the population in general—a matter of

174. This is based on the reasonable assumption that one person commits one murder, see United States Dep't of H.E.W., The Violent Offender 35 (1966), so that the 1973 murder rate of 9.3 per 100,000 population is equivalent to a murderer rate of 9.3 per 100,000. Federal Bureau of Investigation, United States Dep't Justice, Crime in the United States: 1973, at 6 (1974) [hereafter cited as Crime]. This translates to one murderer per 10,752 persons in the United States.

The incidence of murderers is lower among schizophrenics than it is among black persons, who comprise 58 percent of the murder arrestees, id. at 10, but only 11.3 percent of the population, STATISTICAL ABSTRACT, supra note 173, at 26 (1974). If we assume that arrest rates correlate with murderer rates, this produces a murderer rate over five times the national average. Similarly, young persons between the age of 20 and 24 comprise 25 percent of the murder arrestees, CRIME, supra at 10, but only 6.8 percent of the population, STATISTICAL ABSTRACT, supra note 173, at 31 (1974), thus producing a murder rate 3.7 times the national average. Yet no one would suggest locking up and treating all black people or all young people on the basis of those statistics.

^{173.} In 1960, about the middle year for the Haefner and Boeker study, the murder rate for the United States was 5 per 100,000 population and the aggravated assault rate was 60 per 100,000, a total of 6.5 serious violent crimes per 10,000. Bureau of the Census, United States Def't Commence, The Statistical Abstract of the United States 140 (1972) [volumes in this series will hereafter be cited as Statistical Abstract, giving the year of publication]. While there may have been a lower rate of violent persons in the population, since one person may have committed more than one murder or more than one aggravated assault, one can nonetheless be fairly certain that the incidence of violent persons is higher here than among West German schizophrenics.

the rankest speculation¹⁷⁵—we would have to treat 15,360 schizophrenics in order to save the life of one potential victim per year.¹⁷⁶ Meanwhile, according to our statistics, from one to two of those treated would have died from agranulocytosis.

Suicide among schizophrenics: Nor does it appear that schizophrenics commit suicide at a rate significantly higher than does the general population. Studies of schizophrenics resident in public hospitals in New York and California showed annual suicide rates ranging from 30 to 43 out of 100,000, rates that were about three or four times the suicide rates in the general population.¹⁷⁷ Obviously the hospitalized population of schizophrenics is not representative of all schizophrenics, and whether the hospital prevents or precipitates suicide is a debatable question, 178 but again these are the best statistics we have. If drug treatment of schizophrenia would reduce the suicide rate among schizophrenics to that of the general population, we would have to cure about 5000 patients to save one life a year. There is a fifty-fifty chance that one of those patients would die from agranulocytosis, so that the net benefit from treatment is speculative at best. Moreover, even if we were sure treatment would affect suicide rates, we would have to ask whether we are willing to incarcerate

^{175.} There is no evidence for this assumption, or against it, for long-term studies of the effectiveness of drug treatment have a tendency to exclude subjects with any history of serious homicidal behavior. See, e.g., The Collaborative Study Group, supra note 112, at 55; cf. Herz, Endicott, Sitzer & Mesnikoff, Day Versus Inpatient Hospitalization: A Controlled Study, 127 Am. J. PSYCHIAT. 1371, 1372 (1971) (excluding from study 6.8 percent of admitted patients for having a "possibility of violence").

^{176.} The mathematics is simple. If there are 15,360 schizophrenics untreated and on the loose, in a given year they will commit 2.7 murders; if we give them treatment which reduces the murderer rate to one per 10,752, that same 15,360 will commit 1.7 murders.

^{177.} See M. Kramer, E. Pollack, R. Redick & B. Locke, Mental Disorders/Suicide 226, table 7.21 (1972).

^{178.} Studies have shown that the suicide rate among hospitalized mental patients is higher than among the general population, see, e.g., Farberow & MacKinnon, A Suicide Prediction Schedule for Neuropsychiatric Hospital Patients, 158 J. Nerv. & Ment. Dis. 408 (1974) (suicide rate in V.A. neuropsychiatric hospitals is 250 out of 100,000; this is 25 times the rate in the general population), and rises even higher immediately after release. Temoche, Pugh & MacMahon, Suicide Rates Among Current and Former Mental Institution Patients, 138 J. Nerv. & Ment. Dis. 124 (1964) (suicide rate in hospitals is 1.6 to 2.4 times that of the general population; suicide rate among former patients within first six months of release is 34 times that in the general population). For a vivid description of why a public mental hospital might drive one to suicide, see K. Donaldson, Insanity Inside Out (1976).

5000 people for at least a matter of weeks in order to save a single life.

III. CONCLUSION

It appears that although there is a strong likelihood that an appropriately diagnosed schizophrenic will benefit from treatment with antipsychotic drugs, the precise nature of the benefit is as yet uncertain, the dangers of treatment are not inconsiderable, and the dangers that the treatment might avoid are not great. On the whole, then, if we use cases like *Georgetown* and *Jacobson* to guide us, the conclusion must be that involuntary treatment of schizophrenics with antipsychotic drugs is not justified; our hypothetical schizophrenic ought not be committed to the hospital for treatment.

The implications of this evaluation of the research concerning schizophrenia and the psychotropic drugs go further than the involuntary treatment of schizophrenics with chlorpromazine. Since psychiatrists have not proved any form of treatment other than drugs to be effective in treating mental illness, my analysis would suggest that, if the burden of proving effectiveness is, as it should be, placed on the state, no other form of treatment may be forced on refusing patients. This conclusion is fortified by the fact that the literature on schizophrenia and the psychotropic drugs is far more complete than the literature on any form of treatment for any other mental illness. Thus the case for forced treatment of other mental illnesses is likely to be even weaker than the case that I have set out in this Article. And if that is so, then confinement and treatment of an objecting mental patient, no matter what his disorder, should be impermissible.

This would seem to leave "dangerousness" the sole reason for confining the mentally ill, for treatment or otherwise. While I do not intend to discuss this issue, it is important to be aware how limited a justification this is. Presently there is no known method of predicting serious, dangerous behavior with any degree of accuracy;¹⁷⁹ all attempts over-predict dangerousness, so that confinements based on these predictions will inevitably result in the confinement of large numbers of persons who never would have committed any dangerous act.

^{179.} See, e.g., Diamond, The Psychiatric Prediction of Dangerousness, 123 U. Pa. L. Rev. 439 (1974); Ennis & Litwack, supra note 31, at 711-16; Greenberg, Involuntary Psychiatric Commitments to Prevent Suicide, 49 N.Y.U.L. Rev. 227 (1974); Rubin, Prediction of Dangerousness in Mentally Ill Criminals, 27 Arch. Gen. Psychiat. 397 (1972).

If we eliminate from "police power" commitments those cases where the danger is predicted for the distant future, we reduce "police power" commitments to the traditional power of the police to arrest, confine, and restrain someone who is presently dangerous to himself or others: for example, someone who is presently attacking other people or is presently unconscious. Once the person is calm or conscious, as the case may be, the reason for confinement (assuming there is no pending criminal charge arising out of the behavior) ceases, so ought the confinement to cease. This analysis leaves some questions unanswered: for example, are there dangers of greater predictability and smaller magnitude than physical injury to one's self or others—for example, exhibitionism¹⁸⁰—which would justify confinement? At what stage of presently dangerous behavior—threat or assault ought the police power be allowed to intervene? I leave these questions for others to deal with. At present it suffices to say that neither treatment nor dangerousness provides a justification for the vast majority of those mentally ill persons whom the state confines against their will.

^{180.} See, e.g., Carras v. District of Columbia, 183 A.2d 393 (D.C. Mun. Ct. App. 1962).

Appendix

CHLORPROMAZINE STUDIES WITH NEWLY-ADMITTED AND ACUTE SCHIZOPHRENICS

Percentage of Patients Considered Improved by Psychiatrists

Study	Study Pouulation	Drugs	Placebos	Drug	Placebo	Tests Used
Bennett	30 sequentially- admitted male chronic schizo- phrenics	C;M;Pe; Prc;Tpro	Ph	72%	0%	C;M
				***	•••	
Casey	640 newly- admitted male schizophrenics	C;M;Pe; Prc;Tpro	Ph	C: 41% Pe: 44% Prc: 40% Tpro: 50% M: 21%	Ph: 7%	C;M
Childers	48 newly- admitted female schizophrenics	C;Tper	I;N	C: 50% Tper: 58%	I: 8% N: 0%	w
Cole	344 newly- admitted acute schizophrenics	C;F;Th	I	95%	50%	B;I
Englehardt	24 schizophrenic outpatients	C	I	67%	17%	1
Gilmore	37 newly- admitted acute schizophrenics	C;Prm	I	C: 54.7%* Prm: 32.8%	28.3%*	2
				•••	***	
Kurland	238 newly- admitted psy- chiatric patients with target symp- toms of anxiety, agitations & restlessness; pre- dominantly schizophrenic	C;M;Pe; Prc; Prm; Tpro	I;Ph	C: 41% M: 24% Pe:40% Prc: 34% Prm: 25% Tpro: 39%	I: 17% Ph: 6%	M;P;3
Reardon	34 newly- admitted para- noid schizo- phrenics	C;Tper	I	85%**	25%**	Mm,S,W
Rosner	84 newly- admitted psychia- tric patients; 61 schizophrenic	C;R	I;Ph	no difference		
Saretsky	40 newly- admitted male schizophrenics	C	I	34%***	0.5%***	M;R

- Figure denotes percentage improvement of mean morbidity score.
 Figure represents those who no longer had hallucinations and delu-
- *** Figure denotes reduction in mean MSRPP test score.

ABBREVIATIONS

Drugs	: & Placebos	
C:	chlorpromazine	
F:	flophenazine	
I:	inert (e.g., lactose)	
M:	mepazine	
N:	no drug	
0:	opium	
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Pe: perphenazine
Ph: phenobarbital
Prc: prochlorperazine
Prm: promazine

R: reserpine
Th: thioridazine
Tper: trifluoperazine
Tpro: triflupromazine

Tests

B: Burdock Ward Behavior Rating Scale

C: Clinical Estimate of Psychiatric Status G: Gardner Rating Chart

I: Inpatient Multidimensional Psychiatric Scale

M: Multi-Dimensional Scale for Rating Psychiatric Patients

Mm: Minnesota Multiphasic Personality Index

P: Psychotic Reaction Profile

R: Rorschach

S: Shipley-Hartford

W: Weschler Adult Intelligence Scale

Unique Rating Devices

- 1. Rating scale for 20 psychotic signs
- 2. Combined numerical rating for delusions, hallucinations and disturbed behavior by psychiatrist and each of 2 ward nurses.
- 3. Psychiatric scale of target symptoms

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