Commentary on the Soteria Project: Misguided Therapeutics

by William T. Carpenter, Jr., and Robert W. Buchanan

In *The Divided Self* (1965), R.D. Laing made an important contribution to phenomenology and inspired a generation of wrongheaded thinking about the treatment of schizophrenia. The Soteria House project, initiated by Loren Mosher on his return from a visit to Laing’s Kingsley Hall, was based on a concept of schizophrenia as an existential crisis to be resolved at a personal and interpersonal level. Disease models and antipsychotic medications were considered impediments to the creative resolution of a psychotic episode, although it was acknowledged that they were sometimes necessary for management. It was an interesting and daring approach to schizophrenia, most constructively construed as a psychosocial restitutive alternative to traditional hospital/medical treatment. However, in sentiment and presentation, the Soteria House model eschewed the medical model and expressed ideology-based negativity toward the use of antipsychotic medications. Previous reports have shown that the Soteria House model can serve as an alternative to hospitalization in selected patients (Mosher et al. 1975; Mosher and Menn 1978; Mosher et al. 1995), but the risks and benefits compared with traditional care are very difficult to evaluate. Bola and Mosher (this issue) present a new analysis of old data. They interpret this analysis to substantiate the view that a minority of persons who are early in their course of schizophrenia can recover without medication. Putting aside the definition of recovery for a moment, substantial improvement and favorable course of illness off medication was noted by Bleuler (1978) in his long-term followup study and was also observed on a research unit with off-medication protocols (Carpenter et al. 1977), in the Chestnut Lodge long-term followup studies (McGlashan 1987), and more recently in the Finnish “need specific” treatment model (Lehtinen et al. 2000). More remarkable is the Bola and Mosher conclusion that the quality of the recovery is superior to on-medication recovery. These data are relevant to current issues in schizophrenia treatment, but the interpretation and conclusions are flawed. We present an alternative interpretation.

Bola and Mosher observed that 43 percent of the patients who completed the 2-year study (approximately 32% of the intent-to-treat sample) recovered without medication and that those destined to recover without drugs actually did better than similar patients treated with antipsychotic drugs. If their interpretation is valid, then the implications are quite profound. Adverse effects of drugs could be avoided, recovery could be enhanced in a very significant proportion of first and second episode patients, and the patients most likely to benefit could be predicted with reasonable sensitivity and specificity. What is wrong with this picture?

1. Schizophrenia is a disease syndrome, and afflicted patients should be treated by clinicians who are informed about all relevant treatment interventions and are capable of integrating evidence-based therapeutic approaches. It is improper to withhold an effective treatment based on ideology. The biopsychosocial medical model (Engel 1977) provides a valid scientific approach for the integration of therapies drawn from different traditions and initiated at different levels of human function (Carpenter 1986). The Soteria House model is, in part, based on an anti-medication model and anti-disease model ideology. These are not valid models (Strauss and Carpenter 1981; Carpenter and Keith 1986), and invalid models should not be the basis for the diagnosis and treatment of this most severe of human illnesses. However, we would also note that biomedical reductionism has led to very substantial shortfalls in the integration of evidence-based psychosocial and pharmacological treatments. We believe that, partly because of inadequate resources, many front line mental health professionals are relatively uninformed and uninfluenced by scientific testing of psychosocial treatments. Conversely, many front line psychiatrists, often constrained by the systems that employ them, are in a drug-prescribing mode and fail to integrate psychosocial treatments that have been proven efficacious in symptom reduction and relapse prevention (Lehman and Steinwachs 1998).

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2. The Soteria House model has procedures for providing safe haven while natural improvement occurs and involves psychosocial treatment elements that may be efficacious. However, two things are not clear. First, could the model have been created without an anti-medical model ideology and without charismatic leadership? If either of these elements is important to the model, then it will not be able to be initiated or effective in most settings. This is, of course, already the fate of the Soteria House experiment. Second, to what extent is Soteria’s effectiveness related to the withholding of antipsychotic medications? Would prudent drug therapy enhance or diminish outcomes? No data are presented to address this question, but the Bola and Mosher conclusion depends entirely on the answer to this question. Rather, two overall clinical care strategies are compared. The situation may be similar to our first targeted drug study where two strategies for maintenance treatment were compared. In the first study (Carpenter et al. 1987), targeted antipsychotic drug treatment combined with a psychosocial program was comparable to continuous medication combined with standard clinical care over a 2-year period. But the conclusion that targeted drug treatment was as effective as continuous medication at relapse prevention could not be inferred because the psychosocial treatment component differed between groups. The fallacy of such an inference is illustrated by the second study (Carpenter et al. 1990), in which targeted and continuous maintenance drug treatment groups both received the enriched psychosocial treatment. When the drug treatment effect was thus isolated, continuous maintenance treatment beat targeted drug treatment for relapse prevention.

3. The authors assert that outcome was more favorable in the drug-free responders because recovery took place off medication. We think the concept of recovery is misleading in this instance, because no evidence for recovery is presented. The study criteria for recovery was staying off drugs. This definition is in contrast to the usual medical definition of recovery (i.e., absence of psychopathology and unimpaired functioning). This latter definition is a higher standard and more pertinent to the real-life concerns of patients than staying off antipsychotic drugs in a setting devoted to avoiding antipsychotic drug therapy. In the drug-free recovered group, social functioning averaged 2 on a 0–3 scale, work averaged about 18 hours per week, and global pathology averaged 2 on a 1–7 scale. This being noted, the off-medication cohort appeared to do quite well. Given that the worse-course patients fell off the wagon (and onto medication), it is an inevitable methodological artifact that the drug-free responders would be assessed as having the best outcome. While this appears to be the case, the difference did not meet the customary $p < 0.05$ standard for avoiding chance findings.

The other problem with the Bola and Mosher interpretation is their method for determining which patients were likely to recover in the control group. Predictors of off-medication recovery were derived from the Soteria House cohort. Application of these predictors in any new sample of off-medication patients is likely to have weaker predictive power. The bootstrapping routines do not mitigate the problem of predictors being most effective in the cohort from which they are derived. Another consideration is that variables predicting good outcome off medication may not be the same as variables predicting good outcome in the standard treatment control group. If the predictors of best outcome were derived from the standard treatment group and then applied to the off-medication cohort, the bias would be reversed and recovery would probably appear to be better on medication. Finally, if a subgroup of patients did have a better quality improvement with Soteria House treatment, the cause would be unknown and might be any one element or several elements in the program. Identifying medication avoidance as the cause of good-quality improvement is speculation based on ideology.

The key question is whether the patients who did very well off medication would have done better or worse with the prudent use of medication. The study design does not address this question, and it is the answer to this question that is needed for clinical application.

In contrast to the discussion of the data presented by Bola and Mosher, we would offer the following interpretation of the study results:

1. First and second episode schizophrenia and schizoaffective psychoses are skewed toward good prognosis, and many cases achieve substantial improvement and course stability. A favorable course can be observed in the 2- to 5-year time frames of this and other studies (Johnstone et al. 1992; Scottish Schizophrenia Research Group 1992; Schmidt et al. 1995; Gupta et al. 1997; Vazquez-Barquero et al. 1999; Gitlin et al. 2001; Linszen et al. 2001), including a subgroup not requiring continuous medication. This is an important observation in the context of both the inaccurate view that schizophrenia routinely runs a downhill course and that unmedicated psychosis causes a deteriorating course (see Carpenter 1997 and Wyatt 1997 for a discussion of the hypothesis that psychosis is neurotoxic). However, recovery in schizophrenia is a concept requiring careful definition. The implications of a schizophrenia diagnosis are quite negative and prolonged even in early episode populations (Ram et al. 1992; Mojtabai et al. 2000).

2. Provision of safe haven, a traditional hospital function, can be provided in alternative settings (Stroul 1987). We do not believe hospital care is ill-advised, but it is only one component in the range of necessary services. Today, hospital care is limited and patients are routinely dis-
charged while still psychotic with no provision for safe haven. Homeless and jailed patients bear witness to this social injustice. Soteria House offered safe haven. We believe its proponents' tenacious adherence to an invalid ideology has prevented generalization of this potentially beneficial treatment approach with the perverse effect of impeding its integration into the formulary of evidence-based therapeutics. Born in the pharmacotherapy versus psychotherapy era, it requires very substantial modification in today's clinical care arena (Fenton et al. 1998). Other forms of psychosocial intervention have proven efficacious and effective in clinical trials. Nonetheless, a gap exists between therapeutic methods and residential/life support methods. Soteria House integrated these two elements, perhaps providing a unique treatment environment.

A biopsychosocial model (Strauss and Carpenter 1981; Carpenter 1986) provides a framework for integrating pharmacotherapy, psychosocial therapy, and living support clinical care methods. The field has the challenge of developing and testing tripartite models. At this point in time, our failure in meeting this challenge is documented in the paucity of schizophrenia patients who receive the best evidence-based treatment even in the bipartite pharmacotherapy/psychosocial treatment model (Lehman and Steinwachs 1998).

3. The observation that a substantial subgroup of schizophrenia patients can do well off medication is of critical importance (1) in devising treatment strategies for medication-nonadherent patients; (2) in the risk-benefit evaluation of medication withdrawal in single episode patients; and (3) in the risk-benefit evaluation of targeted and very low dose maintenance treatment in patients who wish to avoid risks or dysphoric effects of medication. The observation is also relevant to considering the risks and safety measures important in evaluating medication-free research protocols and placebo-controlled clinical trials (Carpenter et al. 1997).

4. We do not view the current report as supporting the proposition that medication-free treatment is superior to the prudent use of medication in a subgroup of schizophrenia patients. Rather, we suspect that timely and conservative medication use may have been of benefit to the Soteria House drug-free responders. If elements of the Soteria House experience are specifically therapeutic, then it seems doubtful that greater length and intensity of positive psychotic symptoms creates the optimal circumstances for therapeutic response to these elements. In principle, we believe that the integration of pharmacotherapy and psychosocial therapies is a better clinical option (Carpenter 1986; Alanen 1997; Hogarty et al. 1997). We reject the drugs versus psychosocial therapy polemic.

A potential criticism of the Bola and Mosher report is that the issue in question has become irrelevant with the introduction of second generation antipsychotic drugs. Neuroleptic “neurotoxicity” issues gave saliency to the Soteria House anti-antipsychotic medication ideology. We believe that the issue of adverse drug effects remains of considerable concern today. Even with the reduction in extrapyramidal symptoms, tardive dyskinesia, and dysphoric affect associated with second generation antipsychotic drugs, there are still substantial problems with adherence. Furthermore, adverse effects on cardiovascular risk indexes, diabetes, and weight are a new basis for concern about the negative implications of long-term treatment beginning early in the course of illness. Issues concerning the optimal and prudent use of antipsychotic medications continue to be a challenge in schizophrenia therapeutics. But a greater challenge is delivering schizophrenia patients with clinical care, including a safe haven, restorative care, quality of life support, and the best opportunity for a good functional outcome. Soteria House provided an early demonstration of an alternative to hospital-based care but chose ideology over influence and opposition over integration. Valuable lessons were lost and are not recaptured by the eloquent analysis or unsubstantiated conclusions now reported by Bola and Mosher (this issue).

References


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