The Science Behind Soteria Alaska

The Rise in Patient-Care Episodes

Year	Total Episodes	Per 100,000 population
1955	1,675,352	1,028
1965	2,636,525	1,376
1969	3,682,454	1,853
1971	4,190,913	2,026
1975	6,857,597	3,182
1983	7,194,038	3,084
1986	7,885,618	3,295
1990	8,620,628	3,491
1992	8,824,701	3,580
1994	9,584,216	3,680
1998	10,549,951	3,903
2000	10,741,243	3,806

Source: U.S. Department of Health and Human Services, SAMHSA. *Mental Health, United States, 2002*. Per 100,000 numbers calculated according to U.S. Census.

The Disabled Mentally Ill in the United States

Year	Rate of Disabled Mentally Ill Per 1,000 Population
1850	.2
1903	1.86
1955	3.38
1987	13.75
2003	19.69

Source: The disability rates for 1850 through 1955 are based on the number of hospitalized mentally ill, as cited by E. Fuller Torrey in *The Invisible Plague.* The disability rates for 1987 and 2003 are based on the number of mentally ill receiving SSI or SSDI payments, as was reported in 2004 by the Social Security Administration.

Disability in the Prozac Era

Year	SSDI Recipients Disabled by Mental Illness	SSI Recipients with Diagnosis of Mental Illness	Total Number of SSI and SSDI Payments to Disabled Mentally Ill	Number of SSDI Recipients Who Also Received an SSI Payment	Total Disabled Mentally Ill
1987	800,139	2,630,999	3,431,138	(100,017)	3,331,121
2003	1,812,021	4,141,418	5,953,439	(226,502)	5,726,937

Source: Annual Statistical Report on the Social Security Disability Insurance Program, 2003; and SSI Annual Statistical Report, 2003.

The Trial That Launched the Drug Era

Study

(1964) NIMH Trial. Nine hospitals, 344 schizophrenia patients. Three groups received antipsychotic drugs, and one group was treated with placebo.

Six-week results

- 75 percent of drug-treated patients much improved or very much improved after six weeks.
- 23 percent of placebo patients much improved or very much improved after six weeks.

Arch. Gen Psychiatry 1964 ; 10:246-61.

The Paradox

Study

One-year followup of patients in NIMH's nine-hospital trial of 344 schizophrenia patients.

Results

"Patients who received placebo treatment were less likely to be rehospitalized than those who received any of the three active phenothiazines."

Am. J. of Psychiatry 1967; 123:986-95.

NIMH Withdrawal Studies

Study: Two drug-withdrawal studies over 24 weeks, 301 patients

Daily drug dosage at start of trial	Relapse Rate
Placebo	7 %
Less than 300 mg. of chlorpromazine	23%
300-500 mg.	54%
More than 500 mg.	65%

Conclusion: Relapse was found to be significantly related to the dose of the tranquilizing medication the patient was receiving before he was put on placebo—the higher the dose, the greater the probability of relapse.

Hosp. Community Psychiatry 1971; 22:20-3

Bockoven's Retrospective Study

Study

Comparison of five-year outcomes for psychotic patients treated from 1947 to 1952 without antipsychotic drugs with five-year outcomes for psychotic patients treated from 1967-1972 with antipsychotic drugs.

Results

1947-1952 group

45% of patients treated without drugs did not relapse in followup period, and 76% were successfully living in the community at the end of the followup period.

1967-1972 group

31% of patients treated with drugs did not relapse in followup period. The drug-treated group were also much more "socially dependent"—on welfare and needing other forms of support—than those in the 1947 cohort.

Am J Psychiatry 1975; 132:796-801.

Drug Treatment vs. Experimental Forms of Care in the 1970s

Study author	Follow-up Period	Relapse rate for medicated patients	Relapse rate for non-medicated patients
Carpenter (1977)	One year	45 %	35%
Rappaport (1978)	Three years	62%	27%

Am J Psychiatry 1977; 134: 14-20
Int Pharmacopsychiatry 1978; 13: 100-11

The Soteria Project

Study

First-episode schizophrenia patients treated conventionally in a hospital setting with drugs versus treatment in the Soteria House, which was staffed by non-professionals and involved no immediate use of antipsychotic medications. Results are from 1971-1983 cohorts, with 97 patients treated conventionally and 82 patients treated in Soteria House .

Results

- At end of six weeks, psychopathology reduced comparably in both groups.
- At end of two years:
  - Soteria patients had better psychopathology scores
  - Soteria patients had fewer hospital readmissisions
  - Soteria patients had higher occupational levels
  - Soterial patients were more often living independently or with peers

Antipsychotic Use in Soteria Patients

76% did not use antipsychotic drugs during first six weeks

42% did not use any antipsychotic during two-year study

Only 19 % regularly maintained on drugs during follow-up period

J Nerv Ment Dis 1999; 187:142-149
J Nerv Ment Dis 2003; 191: 219-229

The Conundrum

"There is no question that, once patients are placed on medication, they are less vulnerable to relapse if maintained on neuroleptics. But what if these patients had never been treated with drugs to begin with? . . . We raise the possibility that antipsychotic medication may make some schizophrenic patients more vulnerable to relapse than would be the case in the natural course of the illness."

William Carpenter, 1977

The Explanation: Drug-induced Supersensitivity Psychosis

"Neuroleptics can produce a dopamine supersensitivity that leads to both diskinetic and psychotic symptoms. An implication is that the tendency toward psychotic relapse in a patient who has developed such supersensitivity is determined by more than just the normal course of the illness . . . The need for continued neuroleptic treatment may itself be drug induced."

Chouinard and Jones, McGill University

Am.J Psychiatry 1978; 135: 1409-1410
Am J Psychiatry 1980; 137: 16-20.

Confirming Evidence: Harding's Long-Term Outcomes Study

Study

Courtenay Harding did 30-year follow-up study of schizophrenia patients that were on the back wards of a Vermont hospital in the 1950s.

Results

One-third of all patients were completely recovered. All of these receovered patients had stopped taking neuroleptics.

Harding's Conclusion

It is a "myth" that schizophrenia patients must me on medication all their lives. In "reality it may be a small percentage who need medication indefinitely."

APA Monitor 2000; 31 (number 2).
Acta Psychiatr Scand 1993; 90 (Suppl 384):140-6.

Confirming Evidence: World Health Organization Studies

	Developing Countries	Developed Countries
Drug use		
• On antipsychotic medication 76% to 100% of follow-up period	15.9%	61%
Best Possible Outcomes		
• Remitting course with full remission	62.7%	36.9%
• In complete remission 76% to 100% of follow-up period	38.3%	23.3%
•Unimpaired	42.9%	31.6%
Worse Possible Outcomes		
Continuous episodes without complete remission	21.6%	38.3%
In psychotic episodes for 76% to 100% of follow-up period	15.1%	20.2%
Impaired social functioning throughout follow-up period	15.7%	41.6%

WHO Conclusion: Living in a developed country is a "strong predictor" that a schizophrenia patient will never fully recover.

Psychol Med 1992; 22:131-45

Confirming Evidence: MRI Studies

1) Researchers report in 1990s that antipsychotics cause atrophy of the cerebral cortex and an enlargement of the basal ganglia.

2) Researchers at University of Pennsylvania report in 1998 that the drug-induced enlargement in the basal ganglia is “associated with greater severity of both negative and positive symptoms,” which are the very symptoms the drugs are supposed to alleviate.

Arch Gen Psychiatry 1998; 55:145-52
Am J Psychiatry 1994; 151:1430-6.
The Lancet 1998; 352:784-5.
Am J Psychiatry 1998; 155: 1711-7.

Summary of Evidence for Neuroleptics

Psychotic Symptoms

Neuroleptics increase likelihood that a person will become chronically ill

Side Effects

Neuroleptic malignant syndrome
Parkinsonian symptoms
Tardive dyskinesia
Akathisia
Drug-induced suicide
Drug-induced violence
Emotional lethargy
Memory deficits
Cognitive impairment
Shrinkage of frontal lobes
Enlargement of basal ganglia
Early death
Diabetes
Pancreatitis
Hyperglycemia
Blindness
Speech impairment
Swollen breasts
Leaking breasts
Impotence
Obesity
Sexual Dysfunction
Blood disorders
Skin rashes
Seizures
Heat stroke
Fatal blood clots

Evidence-based Use of Neuroleptics

1. No immediate neuroleptisation of first-episode patients

2. Every patient stablized on neuroleptics should be given an opportunity to gradually withdraw from the drugs

Results from other experimental programs that have minimized use of neuroleptics

- **Soteria in Switzerland.** Ciompi reported in 1992 that first-episode patients treated with no or very low doses of antipsychotics "demonstrated significantly better results than patients treated conventionally."

- **Sweden.** Cullberg reported in 2002 that 55% of first-episode patients treated in an experimental program were off neuroleptics at end of three years, and the others were being maintained on extremely low doses of chlorpromazine. Patients treated in this manner spent fewer days in the hospital than conventionally treated patients in three-year follow-up period.

- **Finland.** Lehtinen and his colleagues developed a program that involves treating first-episode patients without neuroleptics for first three weeks, and then initiating drug treatment only when "absolutely necessary." At the end of five years, 37% of the experimental group had never been exposed to neuroleptics, and 88% had never been rehospitalized during the two-to-five-year follow-up period. (Reported in 2001).

- **Finland.** Seikkula reported in 2006 that after five years, 82% of psychotic patients treated with his "open dialogue" approach did not have any residual psychotic symptoms, and that 86% had returned to their studies or full-time jobs. Only 14% were on disability allowance. Seventy-one percent of patients never took any antipsychotic medication.

Br J Psychiatry 1992; 161 Suppl 18):145-53.
Med Arch 1999; 53:167-70.
Acta psychiatr Scand 2002;106:276-85.
Eur Psychiatry 2000;15:312-20.
Psychotherapy Research, 2006; 16(2):214-28.