JOURNAL OF APPLIED BEHAVIOR ANALYSIS 1980, 13, 367-371 NUMBER 2 (SUMMER 1980)

A REVIEW OF PAUL AND LENTZ'S PSYCHOLOGICAL TREATMENT FOR CHRONIC MENTAL PATIENTS: MILIEU VERSUS SOCIAL-LEARNING PROGRAMS[1]

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Combining elegant experimental design with rigorous pursuit of relevant clinical goals, Paul and Lentz have given a precious gift to clinicians, researchers, and teachers in psychology and psychiatry. Working for more than 6 years with 102 of the most refractory and neglected chronic mental patients, Paul and his colleagues demonstrated the superiority of a systematic, inpatient social learning program over milieu therapy and custodial hospital comparison treatments. Although the overall results will replenish the morale of behaviorists who lately have been hard pressed to document the differential effectiveness of their treatment procedures, this monograph more importantly provides—in its comprehensive and complete description of the project's development and execution—a bold and clear model for all clinical researchers to strive to emulate.

Paul began by thoroughly reviewing the literature with a critical eye. He discovered four major reasons why long-stay schizophrenic patients fail to leave the hospital, or if they do, fail to survive in the community: They lack self-maintenance and social skills, instrumental role performance, and community support; and they display high rates of bizarre behavior. Such patients comprise an increasing proportion of hospitalized cases, reflecting the hard-core, residual, institutionalized cases plus the accumulation of acute patients who don't get discharged after one or more admissions. These behavioral deficits and excesses, then, became the targeted goals for the comparison study. The clinical literature also pointed the way to the two psychosocial treatment strategies for the study that had the greatest promise for rehabilitation of chronic mental patients—token economy based on social learning principles, and milieu therapy based on the assumptions of therapeutic community.

The design of the project married the best features of clinical intervention with those of scientific methodology. Operationalizing the essential elements of social learning and milieu therapy procedures, a single treatment staff—principally nonprofessionals with a staff:patient ratio not different from existing custodial institutions—were trained to objective criteria of competence in both procedures. The same staff members, imbued with an optimistic, active treatment ideology, rotated between two identical, adjacent units of 28 beds each at a regional mental health center in central Illinois. Three patient groups, carefully equated on most variables connected to outcome, were placed in the two experimental psychosocial programs and in a 28-bed unit at a comparison state hospital. The patients, leftovers from previous "total push" and discharge efforts at state hospitals, were the "most severely debilitated, chronically institutionalized adults for whom systematic treatment efforts have ever been studied." On a declining contact basis, similar aftercare was provided for 6 months to patients discharged from all three programs.

Regular assessments of patients were made using time-sampled behavioral observations, structured interviews, and standardized rating

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[1]Paul, Gordon L., and Lentz, Robert J. Cambridge, Massachusetts: Harvard Univ. Press, 1977, 528 pp.

scales. Assessment was an unprecedented, heroic enterprise with reliably trained observers sampling behavior on the inpatient floors 50% of waking hours over 4½ years! The massiveness of the assessment process was also reflected by the use of a regular, triple-check data reduction system, involving keypunching, verifying, and computer summarizing of over 5,000 IBM cards per week, and the feedback of this information to the staff for their clinical use and correction of staff behavior. Staff attitudes, staff-patient interactions, and staff personal and social characteristics were carefully monitored as checks on the *fidelity* of staff in using the two, differentiated psychosocial programs. Despite high turnover which necessitated almost constant recruitment and training, the mostly young nonprofessional staff's efforts reflected the ideal assumptions underlying the psychosocial programs. For example, the differential requirements specified by the respective treatment manuals were met by over 90% of directly observed staff-patient contacts, a remarkable documentation of fidelity to therapeutic modes by the rotating staff. Such careful attention to the independence of treatments being compared in a "horse race" outcome study is sadly absent in most clinical research, and thus makes the findings from this study even more robust.

The comparative efficacy of the psychosocial programs was evaluated by changes in specific and global functioning and by discharges that led to at least 90 consecutive days of community tenure. Each released patient received a minimum of three follow-up assessments during an 18-month period and some were followed for 5 years. The results were astonishing, given the refractory nature of the patients: Improved functioning enabling long-term community placement occurred in 97% of the social learning patients with some maintaining themselves for over 5 years which was the longest period of follow-up possible in the study. The milieu therapy program was less effective, but its 71% release and maintenance rate was still a favorable outcome when compared to the patients treated in the state hospital of whom less than 45% were discharged.

The amazing rate of enduring discharges was mirrored by the significant clinical and behavioral improvements corroborated by the multilevel battery of evaluation instruments. For example, by the end of the first 14 weeks of treatment, every resident in the social learning program showed dramatic improvements in overall functioning, regardless of usual prognostic indicators such as duration of hospitalization and pretreatment level of regression. By the end of the second year of programming, fewer than 25% of residents in either experimental program were on maintenance psychotropic drugs and this proportion was further reduced as the programs went on. Together with a clever triple-blind experiment using placebos conducted early in the project, the overall conclusions by Paul and his team that chronic mental patients, in contact with active psychosocial treatment, have little or no need for long-term neuroleptic drugs alone justifies the investment of research dollars by NIMH in this study. This is particularly important as evidence accumulates regarding the harmful side effects of neuroleptics, including the insidious and irreversible tardive dyskinesias.

Although the book can satisfy even the most ardent and meticulous methodologist in the highest ivory tower with its countless tables and graphs of data and sophisticated statistical analyses, Paul and Lentz also provide rich descriptions of significant clinical anecdotes which confirm the view of this project team as balancing the importance of clinical events with experimental methods. The authors, using data to support their contentions, point out the significance of events such as the accidental death of a resident, changes in administrative rules, securing donations for reinforcers, politically motivated attacks on the mental health center by a local state representative, the 6-month illness of the unit supervisor, and the sexual abuse of a resident.

The monograph with its 528 pages of double columns and small print may put off a potential

reader at first glance. However, the authors provide easy to follow guidelines for perusing the book, and clinicians as well as researchers can absorb material relevant to their interests without laborious effort. Each of the chapters has an excellent summary and each of six sections of the book, reporting on process and outcome data, has an introductory overview and a summary. This is a book that one can take small bites into, digesting the huge fund of data and conclusions over a long period of time.

A number of sacred cows are slaughtered by the rapierlike, sharply honed data collected by Paul and his team. For example, environmental psychologists will be disappointed to learn that simply transferring chronic patients from an old state hospital to a modern mental health center with the latest in psycho-architecture and design elements does not result in significant behavioral improvements. One cannot build clinical remediation with bricks, mortar, and furniture: One needs contingencies of reinforcement as well. Another common assumption—the importance of staff-patient contact and attention to patients' needs—is qualified by the finding that it is not *how much,* but rather *how* attention is given that makes the clinical difference. Residents in the milieu therapy program received more attention but improved less than their compatriots in the social learning program. Even behaviorists will be disappointed to discover the failure of reinforcer sampling-exposure procedures in enhancing these chronic patients' involvement in off-ward, "therapeutic" activities such as movies, bowling, sewing, games, and a snack bar.

There is little to criticize in this volume. With the recent "revolution" in psychiatric diagnosis —operationalizing diagnostic entities and making them reliable—it would have been helpful to know the specific diagnostic types represented in this study for generalization purposes. But even a research wizard like Paul could not be expected in 1967, when the plans for the study began, to foretell the innovations brought about by the new Diagnostic and Statistical Manual (DSM III) of the American Psychiatric Association. It is likely that the 102 patients in this study consisted of mainly chronic schizophrenics with active or residual symptoms, plus a sprinkling of retardates, affective disorders, and substance-induced organic mental disorders.

Practical problems facing managers and directors of token economies are addressed by Paul and his team. An elaborate treatment manual for this effective token economy appears as a chapter in the book and examples of recommended procedural memos are given in an appendix. The authors also describe a special purchase plan that enabled residents with large token fines who were on restriction to buy their way into positive reinforcers, thereby avoiding a common problem in token economies where some residents accumulate huge fines, cannot purchase reinforcers, become demoralized, regress, and stop functioning. Paul and his colleagues found that eligibility to purchase reinforcers contingent upon a proportional payoff of accumulated fines successfully returned residents to active participation in the program without weakening the response-cost procedure for controlling inappropriate behavior. Other procedural pointers and assorted clinical wisdom are distributed throughout this book and in related publications by Paul and his team. Because of the great importance of training and maintaining staff competence, program directors will want to read the detailed description of experiences and strategies used during the long course of this study (McInnis, 1976).

Not all clinical problems were solved, however. The most recalcitrant problem—one that faces all workers in institutions—was aggression. Evidence is presented from the milieu therapy program that suggests that focusing the staff's and patients' attention on "intolerable behavior" via community meetings or even through "expulsion" from the community inadvertently may reinforce assault and property destruction. Even in the token economy, only a minimum of 72 hours of time out seemed to control aggression—a duration that is incompatible with current guidelines on human rights. Paul and his team reluctantly encountered

natural experiment with a withdrawal design, finding a tremendous increase in "intolerable behavior" when the duration of permissible time out was reduced by administrative fiat to 2 hours. Even when this limitation was rescinded and up to 24 hours of time out was allowed, the average weekly incidence of aggressive acts remained above that occurring during the baseline period before the token economy was begun!

The project team experimented with a variety of methods to control aggression, none of which was found to be fully satisfactory. Even with 72 hours of time out, certain residents appeared to seek out the privacy and no-demand environment of the time out cell. The reinforcing nature of time out was only partly countered by blowing gusts of air or loud noise into the cell to disturb the offender's nap. High-dose neuroleptic drugs used as "chemical straight-jackets"; two-way telereceivers; part-time male college students hired to study at night on the units; and even beefed-up security patrols were all given a try. The best control procedure seemed to be the scheduling of senior male staff for extraordinary amounts of evening and weekend time on the units for the protection of the mainly female staff and residents. If employment opportunities for psychologists continue to constrict, perhaps Paul and his colleagues have found a new role for at least male, preferably large, psychologists —but woe to affirmative action!

The failure to control aggression led to more serious "ripple" effects. During the period when time out was limited to 2 hours and aggression markedly increased, the continuous data collected on the units revealed a serious regression among the patients on both psychosocial programs in all levels of performance. In fact, during this period patients in the milieu program experienced a washout of almost all the gains they had acquired since the start of the project. During the last 6 months of the project when time out was again lengthened, patients on both programs again showed progressive improvements in self-care, interpersonal skills, instrumental role performance, and bizarre behavior. It is worrisome and unexplained by Paul and Lentz why the clinical frequencies data, collected and summarized daily by the treatment staff, failed to alarm the staff that significant clinical deterioration was occurring during the period when aggression escalated. It was only somewhat later, when the time-sampled data collected by the research observers were examined, that the staff realized the threat to the programs of the steady worsening of the patients. One possible reason for the seeming failure of the feedback loop intended for the clinical frequencies data might have been its complexity—with records being kept on 35 forms for each patient, it is easy to see how information overload could set in.

The excellence of this comparative study and the clear preeminence of the social learning program also provoke a disquieting reaction to the authors' reporting on the program's termination. A change in administration in the governor's office unexpectedly led to a budget slash and the untimely dismantling of the social learning program just at the time it had demonstrated its overwhelming clinical effectiveness. Despite Paul's considerable political savvy and connections—amply demonstrated by the contortions required to mount and complete this complicated and ambitious study—he and his battle-hardened staff stood by helplessly as 6 years of prodigious accomplishment went down the drain. The hopes of idealistic behavior therapists everywhere are diminished by this display of the prepotency of politics over empiricism. After almost 20 years of behavioral analysis and therapy, workers in the field must realize that political, personal, and social factors determine upwards of 90% of the success and survival of technical procedures (Liberman, 1979). Colleagues from overseas have voiced the complaint that, after reading glowing reports in the research literature about innovative behavioral programs, they journey to America to observe and learn only to discover that the programs have ended. More often than not, the termination of an effective program coincides with the end of extramural funding from a grant. Implan-

tation, survival, and dissemination of empirically validated interventions require much more than data and journal publications; unfortunately, the political know-how that is required is not taught in graduate training of psychologists and psychiatrists. The behavioral programs with proven efficacy that have endured and spread can be counted on the fingers of one hand—the teaching home model for delinquents being the example par excellence. We cannot count on administrators' need for accountability and program evaluation to serve as "coattails" for our behavioral programs. More likely it will be the behavioral analysts whose zest for measurement will be exploited and misused by mental health administrators and politicians. If we want our work to live beyond a library bookshelf, we will have to jump into the political mainstream and get our feet wet as administrator-researchers.

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Received November 9, 1979
Final acceptance November 15, 1979