Adverse Effects of Poor Behavior Management of an Inpatient's Difficult Behaviors

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Behavior therapy has been shown to improve the functioning of institutionalized clients, but frontline staff often have difficulty implementing behavior therapy techniques. In the case described in this report, staff with inadequate training in behavior therapy inconsistently used negative and positive reinforcement in the attempt to reduce the aggressive behavior of an inpatient diagnosed as having schizophrenia, and the interventions were associated with an increase in assaults and related behavior. The case illustrates the effects of poor behavior management and the importance of data collection in evaluating clinical interventions. (*Psychiatric Services* 50:964–966, 1999)

The potential of behavior therapy to help adults with serious mental illness improve their functioning has been demonstrated (1). Behavior therapy continues to have an important role, even in light of the development of increasingly effective medications for refractory schizophrenia (2,3).

In an effort to promote behavior therapy, clinicians with expertise in this intervention have trained frontline institutional staff as behavior therapists (4,5). This practice, however, is often hindered by organizational barriers and staff's resistance, lack of knowledge, and tendency to punish patients (6,7). Because much of the language of behavior therapy is commonplace– although behavior therapy terms often have different meanings in everyday speech– frontline and management staff members sometimes erroneously believe that behavior therapy is nothing more than "common sense." The adverse effects of such errors are not readily demonstrated in the absence of a suitable evaluation design.

In the case reported here, serendipitous events allowed the use of an A-B-A-B research design to evaluate staff's interventions in addressing the undesirable behavior of a male patient in an inpatient psychiatric setting. These interventions provided what might be a prototypical example of poor behavior management in institutions (8). Staff members' misperceptions of the concept and efficacy of reinforcement led to their inadvertently making the patient's behavior worse, by providing him with something he desired– restraint– contingent on behavior that staff found undesirable.

Client and setting

Mr. A was an intelligent, middle-aged man whose first psychiatric admission followed a self-castration attempt. Three years later, in 1995, he was detained in a hospital involuntarily after touching or talking obtrusively to strangers. Mr. A was tentatively given a diagnosis of schizophrenia or schizotypal personality disorder. He declined treatment (medical and behavioral) and received medication under substitute consent. He had been in the hospital for 13 months when the behavior management plan described here was introduced.

Mr. A resided on a ward designated as a behavior therapy unit. However, neither the unit director nor other clinicians had formal training in behavior therapy. During the patient's stay on the ward, the two unit psychometrists received training in behavior therapy. The unit's token economy (9) had previously been suspended because an evaluation using a pre-post study design had revealed no effect of the program on ratings of patients' behavior. Evidently, staff had often assigned points without actually observing patients' behavior.

Unit staff reported that Mr. A spent much of his time in his room, avoiding other people. When he was out of his room, he grabbed the genitals of other patients or staff members, or attempted or threatened to do so, and he pressed or tried to press the emergency response button. Staff knowledgeable in behavior therapy recommended withdrawing the attention given to Mr. A's undesirable behavior– an example of the behavior therapy technique of extinction– and providing positive reinforcement of desired behavior to replace the undesired behavior, an example of differential reinforcement of alternative behavior. However, such techniques were deemed to be "treatment," which could not be administered because Mr. A had refused to consent to treatment. Many staff members believed that Mr. A's disruptive behavior

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had to be managed, and a perceived distinction between "treatment" and "management" emerged. Interventions such as physically restraining the patient and limiting his access to his room contingent on his behavior were deemed to be "management."

Intervention

The "management plan" for Mr. A required him to be out of his room for three defined time periods each day. If he tried to grab someone or pressed the emergency response button during the time out of his room, staff would place him in the unit's television room in wrist restraints until the end of the time period, then return him to his room. Wrist restraints were authorized for use only when the plan was in effect.

Later, during the plan's implementation, staff sometimes decided not to use restraints, or they placed Mr. A in restraints when he merely said he might grab someone, or they left him in his room all day. The plan was discontinued completely after six weeks, as a result of conflict among staff. Several weeks later, the plan was reimplemented. These changes allowed an A-B-A-B study design that included the six weeks before the plan was introduced, the six weeks when the plan was first in effect, the six weeks after the plan was discontinued, and the first six weeks after reintroduction of the plan.

Data collection and results

Staff described Mr. A's behavior in the clinical record at least daily. Each use of restraints was noted immediately in the record, along with an explanation of the circumstances leading to restraint.

The record was reviewed by the authors, and the number of times Mr. A was noted as having assaulted others, pressed the emergency button, or attempted to do so was counted for each of the four six-week time periods. On several occasions during the periods when the plan was in effect, clinical notes referred to "numerous" or "repeated" attempts. For the study reported here, each reference to multiple attempts on these occasions was counted as one incident.

Completed or attempted assaults were significantly more frequent during the time periods when the plan was in effect. Thirteen assaults were reported during the six weeks before the plan was introduced, 39 during the first period the plan was in effect, eight after the plan was discontinued, and 42 during the reintroduction of the plan ($t=10.29$, $df=2$, $p<.01$). The frequency of pushing or trying to push the emergency button– a behavior that was not targeted by the plan– was not significantly different among time periods. There were no incidents of this behavior before the plan was first introduced, ten incidents during the first period when the plan was in effect, two incidents after the plan was discontinued, and five incidents after the plan was reintroduced.

Data on Mr. A's medications were also recorded. During the six weeks before the plan was introduced, Mr. A received 100 mg of clozapine three times a day. For four days while the plan was in effect he received no medication; then he received up to 10 mg of olanzapine at night for the next four weeks. For the last ten days of the plan and all of the six-week period after the plan was discontinued, Mr. A took no psychotropic medication. Three weeks into the reintroduction of the plan, Mr. A began intramuscular zuclopenthixol decanoate every two weeks. Thus he spent more days on medication while the plan was in effect than while it was discontinued (84.5 percent versus 47.6 percent). Assaults were thus associated with being on medication ($r=.58$).

Discussion and conclusions

Evaluation of the management plan is confounded by variations in Mr. A's medications. Mr. A was more likely to be taking regular psychotropic medication– and was more disruptive– when the plan was in effect than when the plan was discontinued. The drugs Mr. A received have been associated with reduced aggression rather than increased disruption. Thus it is unlikely that medication increased Mr. A's disruptiveness. A more plausible interpretation is that the management plan increased his undesirable behavior.

In conversation, unit staff often used the term "negative reinforcement" when they meant "punishment." Ironically, staff increased Mr. A's assaults and related behavior by allowing him occasionally to withdraw from the ward milieu (negative reinforcement) and offering him physical restraints (positive reinforcement) in return for this behavior, intending to punish him. Moreover, they applied these contingencies intermittently, which likely increased his resistance to extinction of the undesirable behavior.

After these results were presented to the unit, the management plan was discontinued. Further medication adjustments were made, and Mr. A completed a trial of electroconvulsive therapy. One year later, Mr. A was transferred to a psychosocial rehabilitation unit, where so far he questions procedures but is not disruptive and socializes well.

The case reported here illustrates that poor behavioral management can have adverse effects. A second lesson is that data collection is essential for proper evaluation of patients' outcomes. In this case, lack of data about Mr. A's behavior would have allowed staff to continue to believe in the effectiveness of the plan. A third lesson is that an arbitrary distinction between behavioral interventions that are "management" and those that are "treatment"– made to circumvent administrative barriers that would have prevented treatment and to address what staff may consider an urgent situation– cannot replace careful assessment of the patient's problem behaviors and use of the most effective interventions.

This case also raises questions about the need to monitor the effects of regulations designed to protect patients' rights in relation to treatment. Reduction of aversive procedures– which can be achieved by requiring managerial review (10)– and inclusion of patients' preferences in planning treatment would not only help protect patients' rights but would also increase treatment effectiveness. ♦

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