

ASSESSING THE NEED FOR FOLLOW-UP:

The Relationship of Prognosis to Posthospitalization Adjustment

Terri Atkin White, RN, MS, Rita Benn, MA, Deborah Gross, RN, MS,
Carol Schaffer-Lopez, RN

Children's Psychiatric Hospital, University of Michigan

ABSTRACT: Parents of children (N=64) hospitalized at a psychiatric hospital between the years 1971 and 1976 rated their child's adjustment in a number of behavioral areas. Problems in school, making friends, acting age-appropriately, and handling aggression were reported to be the major sources of difficulty for 40% of the former patients. No statistical relationship was found between clinicians' prognosis at discharge and children's post-hospitalization adjustment. The authors discuss some of the variables that mitigate against accurate outcome prediction and argue for the integration of an organized follow-up program into their treatment program.

The study was designed to determine the need for organized follow-up of children discharged from the Children's Psychiatric Hospital (CPH) in Ann Arbor, Michigan. In the past, follow-up has been conducted informally, subject to the whim of individual staff members. In an effort to assess the need for follow-up, the authors sought to determine whether postdischarge adjustment could be predicted by prognosis at discharge.

The Setting

The children's Psychiatric Hospital (CPH) is a thirty-four bed inpatient facility for children of five to thirteen years of age. As part of the University

Terri Atkin White is Clinical Specialist and Follow-up Coordinator, Children's Psychiatric Hospital, University of Michigan, 1275 North Hospital Drive, Ann Arbor, MI 48104. Rita Benn is affiliated with the University of Michigan in Ann Arbor. Deborah Gross is a Clinical Faculty Member of Rush-Presbyterian St. Luke's Medical Center. Carol Schaffer-Lopez was formerly Head Nurse, Children's Psychiatric Hospital, University of Michigan. Requests for reprints should be directed to Ms. White.

of Michigan Medical Center, CPH is a teaching hospital where psychiatrists, psychologists, social workers and nurses are trained. The orientation of the treatment program is primarily psychoanalytic, but a wide variety of approaches are represented among the hospital staff. Length of hospitalization ranges from a few months to several years, with an average of approximately one year.

The inpatient program is based on a milieu treatment model, the major components of which are a school program, occupational therapy, recreational therapy, primary staffing and psychotherapy. The "day program" consists of occupational and recreational therapies and school, where a low student-teacher ratio encourages education geared to the academic and emotional needs of the individual child. After school, the child returns to the ward to be cared for by his "primary staff" (the nurse or psychiatric care worker who acts as the parent-surrogate). The primary staffing system, which replaced a group care method in September, 1974, provides for a 2:1 staffing ratio. An adult is assigned to care for each child on an ongoing basis and, over time, this adult becomes the new model for identification. The relationship with the primary staff thus becomes the main motivational source for change [1].

Each child is seen in intensive psychotherapy three times per week. Training and experience varies widely among the therapists, in that both staff and supervised graduate students in psychiatry, psychology, social work and nursing function in the role of therapist. It is the therapist who designates the prognosis at discharge. The child's parents are also seen by a therapist, usually once a week, while the child is at CPH. In order to maintain the integrity of the family as much as possible during residential treatment, most children go home on passes weekly or bimonthly.

Review of the Literature

The need for psychiatric follow-up has been noted by several authors from a variety of viewpoints. Davids and Salvatore [2] found very few follow-up studies available in the literature and cited the need for "more and better indicators of the likelihood of residential treatment having eventual positive effects" (p. 66). Doll [4] asserts that the failure to monitor the family's adjustment at home and to provide institutionalized mechanisms for support may cripple efforts to reestablish former patients into the community setting. The author emphasizes the tense emotional atmosphere facing the former patient and the consequent need for guidance and support after discharge. Leavitt [4] interviewed the families of sixteen

psychiatric patients regarding the impending discharge of their relatives, and found that the families were not prepared for the patient's discharge. He concluded that the families of discharged patients are greatly affected by the emotional impact of mental illness, and suffer from the disorganization and confusion of discharge.

It can be anticipated that families undergo tremendous strain in the process of reintegrating former patients into the family structure. In an effort to predict outcomes of this experience for the patient and the family, prognostic statements are often made by the therapist at the time of discharge. Such prognoses are usually based on the admitting diagnosis, the history of the patient's disorder, the family history and pathology, and the ability of the patient and his family to relate to others in the environment [5].

However, Bloom, Zang and Goldberg [6] propose, on the basis of their follow-up study of 92 discharged adult psychiatric patients, that hospital personnel cannot accurately predict their patients' outcome:

"Post-hospital adjustment of discharged psychiatric patients is apparently a function of certain factors which cannot be determined at all decisively from the patients' past history, current behavior at the time of discharge or family situation. Unpredictable events following discharge, such as obtaining or losing a job, family illness, or chance encounters, can have a significant impact on posthospitalization adjustment. These chance factors may be considerably more important in determining adjustment than any characteristics of the present situation, however accurately assessed ..." (p. 249).

A follow-up study of people who had been institutionalized during childhood also found the evaluations of subsequent adjustment were unrelated to treatment variables, such as prognosis [2].

Another problem in relying on prognoses as indicators of posthospitalization adjustment is that prognostic summaries are laden with global psychiatric judgments. Stroebel and Glueck⁷ state that these judgments may be influenced by factors unique to the therapist's experience, training, memory and frequency of contact with the patient. Thus the reliability of prognoses as predictors of patient outcomes is subject to question.

Given these questions about prognoses as predictors, the uncertainty of the postdischarge period and the intervening variables which may influence the patient and his family, the authors were interested in exploring the relationship between prognosis and postdischarge adjustment. This was accomplished by comparing patient prognosis at discharge with current adjustment levels, as perceived by the parents or caretakers of the former patients. A review of the research indicated that patients, relatives and

significant others are as reliable as clinicians in assessing patient behavioral adjustment [8,9].

Method

Subjects

The population consisted of children who were discharged from the Children's Psychiatric Hospital between September, 1971 and December, 1976. Only those children who were treated on an inpatient basis for a period exceeding one month and who were discharged between the ages of five and fourteen were eligible for inclusion in this study. Careful perusal of the records produced the charts of 115 children who met these criteria. A description of the population according to demographic and treatment variables is presented in Tables 1A and 1B. Group 1 comprises the actual follow-up sample, the 64 children whose parents or caretakers responded to the mail-out questionnaires. Group 2 includes the 20 subjects who were sent questionnaires but did not respond, the Group 3 contains the 31 children who could not be located.

Instrument

Data were collected by having parents or caretakers of the children complete a mail-out questionnaire concerning the current adjustment of their child. The authors devised a twenty-item checklist on which parents were asked to rate the frequency of certain behaviors. A four-point frequency scale was used: 1—not at all, 2—just a little, 3—pretty much, and 4—very much. The content of this questionnaire was largely derived from Conner's parent behavior rating checklist [10] and included areas of functioning typically thought to reflect childhood adjustment, such as the activities of daily living, behavior in school and at home, and relationships with others. A rating of 1 or 2 on each item was considered indicative of good adjustment and that of 3 or 4, poor adjustment. Following the behavior rating checklist were three open-ended questions designed to elicit comments from the parents or caretakers. The questions ask whether the child has received further psychiatric care or lived out of the home since discharge from CPH, and whether the respondent feels that hospitalization at CPH was beneficial to the child. The entire questionnaire was designed to take approximately fifteen minutes to complete.

Procedure

Once a patient's record was located, various demographic data and information about the patient's course of treatment were noted on a coding schedule. Prognostic statements listed on the discharge summary of each record were coded into one of three categories: good, fair or poor. Patients who had received a prognosis of excellent, very good and good were grouped into the good category, those who had been given a fair prognosis into the fair category, and those who had received a guarded or poor prognosis fell into the poor grouping.

Attempts to find the former patients began with the last known address and phone number recorded on the chart. If the patient could not be contacted at that number or through the telephone information service, the subject search continued with calls to potential contacts noted in the record. Once located, the subject's parents or caretakers were contacted via a standardized telephone interview that explained the nature of the study and invited their participation. All but two subject families that were contacted agreed to participate. Questionnaires were sent between October, 1977 and April, 1978, following the telephone call. Accompanying each questionnaire was a cover letter outlining subjects' rights and including a promise of confidentiality, a consent form and a return envelope. If the questionnaires were not returned within one month of mailing, a second phone call was made, and in some cases, another questionnaire was sent out.

The subjects were then grouped into three categories: Group 1 (56 percent), those who were located and responded to the questionnaire; Group 2 (17 percent), those who were located but did not return the questionnaire; and Group 3 (27 percent), those who were impossible to locate. Chi-square analyses and one-way ANOVA's were performed between the three groups on specific demographic and treatment variables—that is, sex, race, socioeconomic status, diagnoses, previous residential care and psychiatric care, age at admission, length of hospitalization, type of milieu approach, planned discharge, readmission to CPH and the time that elapsed between discharge and follow-up study. Chi-square analyses were also performed for the follow-up sample between (a) prognosis and the adjustment ratings on each item of the questionnaire; (b) treatment variables and adjustment ratings; (c) the content-coded responses to the open-ended questions and adjustment ratings; and (d) open-ended responses and treatment variables.

Results

Analysis of the Sample

Of the questionnaires mailed to the located subjects (Groups 1 and 2) 77 percent were returned completed ($n=64$). To test for potential bias of the sample, the chi-square analyses and one-way analyses of variance were performed between the three groups on particular demographic and treatment variables (Tables 1A and 1B). There were no significant differences found on any of the tested variables. Thus the responses to the questionnaires that were received do not appear to reflect those of a biased sample.

It does appear that those subjects who were not found (Group 3) were those treated less recently. The mean length of time between discharge and the time at which the follow-up study began was considerably shorter for Groups 1 and 2 (Table 1A). This difference in time is reflected in the fact that the former patients in Group 3 were predominantly treated by the "group care" concept of milieu treatment ($\chi^2 = 5.42, p<.07$). Group care was replaced by the "primary care" system approximately 40 months prior

Table 1A
 Description of the Population
 Mean and Standard Deviation

	Group 1	Group 2	Group 3
n =	64	20	31
age on admission	9.7 yrs. (2.4)	10.6 yrs. (2.2)	9.3 yrs. (2.0)
age at follow-up	14.8 yrs. (3.4)	16.4 yrs. (6.7)	15.9 yrs. (5.6)
length of hospitalization	1.4 yrs. (0.9)	1.1 yrs. (0.7)	1.4 yrs. (0.8)
length of time between discharge and follow-up	3.6 yrs. (1.7)	3.8 yrs. (1.5)	4.2 yrs. (1.4)

to the initiation of this study. Despite this difference, the large within-group variance across all three groups appears to preclude any statistical significance and to indicate a similar heterogeneity among all three groups.

Response to the Questionnaire

Eighty-five percent of the questionnaires were filled out by the parents of subjects currently living at home. Fourteen point three percent of the subjects were in residential placement and were thus rated by either their foster parent(s), caseworker or therapist. Two subjects were hospitalized in a psychiatric facility at the time of the study.

Table 1B
Description of Population (%)

	Group 1	Group 2	Group 3
<hr/>			
Sex			
male	65.6%	65.0%	71.0%
female	34.4%	35.0%	29.0%
<hr/>			
Race			
white	93.8%	90.0%	80.6%
black	4.7%	10.0%	16.1%
other	1.5%	0.0%	3.3%
<hr/>			
Previous Psychiatric Contact			
outpatient therapy	42.0%	40.0%	38.7%
hospitalization	10.0%	5.0%	22.0%
none	48.0%	55.0%	39.3%
<hr/>			
Previous Residential Placement	3.0%	1.0%	12.9%
<hr/>			
Diagnosis			
neurosis	27.0%	21.1%	23.3%
personality disorder	28.6%	36.8%	43.3%
reactive disorder	19.1%	15.8%	10.0%
borderline	3.2%	1.0%	6.6%
psychosis	2.0%	1.0%	3.3%
other	20.1%	24.3%	13.5%
<hr/>			

Table 1B (continued)

Discharge Against Medical Advice	9.4%	5.0%	1.0%
<hr/>			
Prognosis			
good	69.1%	39.0%	64.3%
fair	18.2%	16.7%	21.4%
poor	12.7%	44.3%	14.3%
<hr/>			
Readmission for Hospitalization	2.0%	5.0%	6.5%
<hr/>			
Milieu Approach			
primary care	43.8%	35.0%	19.4%
group care	56.2%	65.0%	80.6%

A majority of parents and caretakers reported good adjustment in almost all of the potential problem areas (Table 2). Over 85 percent of the subjects were perceived as experiencing little or no difficulty related to drugs or alcohol, delinquency, bodily functioning (wetting, soiling or somatic complaints), sexual activity or sleeping patterns. However in some problem areas, a greater proportion of the sample were seen as adjusting poorly. Problems with school, making friends, acting their appropriate age and handling aggression were reported to be the major sources of difficulty for over 40 percent of the former patients. Lying, getting along with the family and feeling anxious were seen to be predominant problems for at least one third of the sample.

At discharge, CPH recommended further treatment for 90 percent of the patients in the study. Since discharge, approximately 47.5 percent of the sample have had some form of psychiatric care. Thirty-four percent of the subjects have received individual outpatient therapy and 7.8 percent were hospitalized at some time following their discharge from this facility. There does not appear to be any relationship between those children who were involved in psychiatric treatment since discharge and the type of milieu approach or the length of hospitalization at CPH.

Table 2
Responses to Questionnaire (%)

	Adjustment Scale	
	Good Adjustment	Poor Adjustment
	("not at all", "just a little")	("pretty much", "very much")
problems with eating	78.1%	21.9%
problems with sleeping	91.5%	8.5%
problems getting along with parents/guardians	62.5%	37.5%
problems getting along with brothers/sisters	69.5%	30.5%
problems in school	54.1%	45.9%
hurts self	96.8%	3.2%
hurts others	90.3%	9.7%
hurts property	88.5%	11.5%
seems tense or worried	65.6%	34.4%
gets in trouble with police	91.9%	8.1%
does not act his/her age	60.3%	39.7%
problems with wetting or soiling	98.4%	1.6%
problems with drugs or alcohol	95.0%	5.0%
problems related to sex	90.7%	9.3%
complains about feeling sick	90.3%	9.7%
gets angry easily	45.2%	54.8%
problems making friends	57.6%	42.4%
problems with adults	75.8%	24.2%
tells lies	65.1%	34.9%
problems with stealing	79.0%	21.0%

There was a trend, however, for those discharged against medical advice (AMA), to have received psychiatric care more frequently after discharge than for those who had planned discharges (Fischer's exact test, $p = .07$). This same trend was not evident for those subjects who were subsequently placed in a residential setting—that is, foster care, or group home.

Since discharge, 36.5 percent of the sample had been placed in a foster or group home while 19.7 percent had received both psychiatric treatment and foster/group home care. Nonetheless, 75.8% of the respondents stated that they felt that hospitalization at CPH had helped their child. Seventeen point two percent did not feel that the hospitalization helped and 6.9 percent stated that they felt unsure.

Prognosis as a Mediating Variable

An analysis of the relationship between prognosis and each of the items on the adjustment scale was performed through the use of chi-square. No relationships were found between prognosis at discharge and any of the adjustment items. Furthermore, there was no relationship discerned between prognosis and postdischarge psychiatric care, or prognosis and residential placement.

Discussion

The sample studied appears to be representative of the clinical population seen at the Children's Psychiatric Hospital. While the results of this study cannot be generalized past this particular setting, the adequate sample size, the heterogeneity of the three groups tested and the high return rate of the questionnaires are favorable indications of a representative sample.

The question of the parents' reliability as informants is one that warrants discussion. As cited earlier, Ellsworth et al demonstrated that patient relatives and significant others are as reliable as clinicians in assessing patients' behavioral adjustment. This finding was a significant factor in the decision to use parental assessment. However, it was also felt that because it would be the parents who would determine the need and who would initiate contact for psychiatric assistance, their views of the child's adjustment were significant. It is the parents' environment to which the child is expected to adjust and, therefore, their assessment is important.

The relationship between prognosis and adjustment is of major interest in this study. While the results clearly revealed that there was no

relationship between these two variables, there may have been several confounding variables that were not controlled for in this study. For example, the mean ages at follow-up for each of the three groups in the population fall into adolescence, a developmental phase characterized by familial conflict, angry outbursts and an intensification of the conflicts experienced in the previous developmental stages. This variable may account for the fact that 55 percent of the subjects were perceived as having difficulty with their anger, the only category in which over 50 percent of the sample was reported as adjusting poorly. Thus, the difficulties perceived by the parents of adolescent subjects may be those that are typical of that age group rather than indications of pathology.

Another complex variable that enters into any follow-up study involving children is the natural change that takes place in the process of growing up. Maturation may, in and of itself, create change independent of treatment. Similarly, familial changes, such as divorce, remarriage, parental death or termination of parental rights also influence adjustment outcomes. The interaction between history and maturation are only two of the many factors that influence post-discharge adjustment but whose impact cannot easily be determined.

The absence of a relationship between prognosis at discharge and the variables that affect post-discharge adjustment appear to support the belief that patient outcomes cannot be accurately predicted at discharge. The wide variation in the level of training and experience of the therapists who designated prognoses may have affected the accuracy of prediction. However, this variation does not adequately explain the lack of relationship between prognoses and outcome. Therefore, it seems reasonable to assume the follow-up should be included as an integral part of an effective, consistent treatment program.

In addition, there were several other justifications for the institution of a follow-up program that became evident in the course of this research study. The staff's need for feedback on former patients' experiences became apparent when the authors found themselves frequently asked by various members of the treatment team if we had received any news of particular patients they had known. While the authors were unable to divulge any information regarding the study subjects, it became obvious that the staff's desire to know how the children were adjusting was quite important to them. It is possible that such feedback may provide information as to the efficacy of certain treatment techniques. Furthermore, reports of positive patient outcomes would augment the sense of accomplishment felt by the staff, thereby improving morale.

The parents' need to evaluate the hospital experience was recognized as

an equally important need, evidenced by the fact that almost half of the sample wrote detailed comments that were frequently unrelated to their child's behavioral changes. Several parents commented that they felt that the hospital did not respond to their needs as parents. These parents chose to write lengthy statements of their feelings, perceptions, observations and suggestions. Some openly thanked us for the opportunity to voice their opinions.

Some parents wrote pleas for help with their child. One parent stated that "it has gotten to the point that I can't take anymore... (he) needs help!" On the basis of parental feedback, it can be speculated that the lack of a follow-up program may imply to some parents that the staff wish no further contact with former patients. An organized format for follow-up, where the parents and former patients are contacted by the agency, could provide needed support and relief to these families.

As a result of this study, an organized follow-up program was initiated at CPH in the Fall of 1978. One of the purposes of this program is to conduct further research. Areas which require additional investigation include: comparing patient adjustment before, during and after hospitalization; assessing the degree of agreement between parental and professional analyses of adjustment; discerning which variables are most predictive of future adjustment; and evaluating the efficacy of treatment techniques.

References

1. Nagera H: The primary caretaker system: a method for running inpatient units for children. Unpublished.
2. Davids A, Salvatore D: Residential treatment of disturbed children and adequacy of their subsequent adjustment: A follow-up study. *Am J Orthopsychiatry* 46:62-73, 1976.
3. Doll W: Family coping with the mentally ill: An unanticipated problem of deinstitutionalization. *Hosp Commun Psychiatry* 27:183-185, 1976.
4. Leavitt M: The discharge crisis: The experience of families of psychiatric patients. *Nurs Res* 24:33-40, 1975.
5. Pichel JT: A long term follow-up study of sixty adolescent psychiatric outpatients. *Am J Psychiatry* 131:189-198, 1974.
6. Bloom B, Zang EM, Goldberg H: Factors associated with accuracy of prediction of posthospitalization adjustment. *J Abnorm Psychol* 76:243-249, 1970.
7. Stroebel C, Glueck B: Computer derived global judgments in psychiatry. *Am J Psychiatry* 126:1057-1058, 1970.
8. Colligan RC: The Minnesota Child Development Inventory as an aid in the assessment of developmental disability. *J Clin Psychol* 33:162-163, 1977.
9. Ellsworth RB, Foster L, Childers b, Arthur G, Kroeker D: Hospital and community adjustment as perceived by psychiatric patients, their families and staff. *J Consult Clin Psychol* (Monograph Supplement) 32:1-41, 1960.
10. Connors CK: Symptom patterns of hyperkinetic, neurotic and normal children. *Child Dev* 41:667-682, 1970.