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The Fort Logan Mental Health Center is a new state hospital which will eventually serve half of the population of the state of Colorado. Its organization follows as much as possible the recommendations of the Joint Commission on Mental Illness and Health. Concepts of milieu therapy are strongly utilized, with the emphasis on expansion of professional roles and the involvement of the patient's family and his community as much as possible in treatment. The hospital is entirely open and relies heavily on transitional forms of treatment. One-half of its patients are in day care, and evening care is being instituted. Geographic and administrative decentralization are utilized, with the same psychiatric team following the patient through admission, treatment, and outpatient care.

MAN AS AN INFORMATION PROCESSOR

PAUL R. BINNER, PH.D.,* *Assistant Chief, Research Department*
Fort Logan Mental Health Center, Denver, Colorado

INTRODUCTION

This paper will concentrate on two aspects of man as an information processor: the ways in which he generates information and the ways in which he evaluates information. The plan of this paper is to compare and contrast the ways in which the ordinary individual and the scientist generate and evaluate information, noting some of the implications of this comparison for understanding human behavior; and to explore some of the implications of the comparison for the problem of behavior change.

Man's generation and evaluation of information are imbedded in a chain of events which results in some behavior. This process can be broken down into three steps: (a) An event or group of events, which may include reinforcements, interpretations, social experiences, feelings, thoughts, etc., occur either inside or outside the individual. (b) These events are perceived and interpreted by the individual in some way and at some level of awareness. (c) Some functionally related behavior follows. The fate of the input in this chain of events will be crucial in the determination of the behavioral output. Whatever is done to influence behavior may be thwarted or enhanced by the information-processing strategy of the recipient.

The view that man's behavior is not entirely consciously determined is widely accepted. Munroe (3) summarized this view when she wrote:

> Because inquiry into the unconscious came into scientific prominence via pathology, most of us fail to realize that perfectly normal goals are in large part unconsciously determined. No

*Box 188, Fort Logan, Colorado.

healthy person lives by a minute-to-minute ordering of his act-
ivities and feelings according to a conscious plan rationally
determined and executed at all points. His life is mainly ordered
unconsciously, as the poets have always known. So long as
his unconscious goals are in harmonious relationship with his
conscious aims and are pursued according to the canons of rea-
sonableness approved by his society, they are very difficult to
discern.

Hall and Lindzey (2) also describe the psychoanalytic
view:

He (Freud) likened the mind to an iceberg in which the smaller
part showing above the surface of the water presents the region
of consciousness while the much larger mass below the water
level represents the region of unconsciousness. In this vast
domain of the   unconscious   are to be found the urges, the
passions, the repressed ideas and feelings—a great underworld
of vital, unseen forces which exercise an imperious control over
the conscious thoughts and deeds of man. From this point of
view, a psychology which limits itself to the analysis of con-
sciousness is wholly inadequate for understanding the under-
lying motives of man's behavior.

According to this view, these unconscious determinants
(or determinants with a low level of awareness) are seen as the
major source in the influence of behavior. Thus the task of the
individual concerned with modification of behavior is seen as the
clarification of the connections between these unconscious in-
fluences and the resultant behavior. In other systems the change
agent may simply use his awareness of these forces to guide his
analysis of the conflict the person may be trying to solve or the
goal he may be seeking, or he may apply the proper pattern of
reinforcements in order to solve the problems or reach the goals
more effectively. In actual practice a combination of these tac-
tics is used. All these approaches to the problem are based on
the premise that unconscious forces guide or motivate the dis-
ordered or ineffective behavior. The solution lies either in
mastering some of these unconscious forces or in using awareness
of them to guide the individual to better problem solutions. The
awareness of the change agent may be based either on personal
knowledge of the circumstances of the client or on the assumption
of certain similarities in the personalities of all clients with cer-
tain kinds of problems (symptoms, diagnostic groups).

This view of the problem is both dangerously limiting and
misleading. It is limiting in that it has lead to a vast under-

estimation of the potential for enlightened, rational behavior in people. It is misleading in that it has focused attention on doing something about the iceberg of unconscious forces and has largely ignored the fogbank of inadequate information that makes the iceberg such an effective stumbling block to rational behavior. Major problem-solving attempts have been focused on only this one aspect of the problem and have ignored an equally, if not more, important aspect.

INFORMATION HANDLING, SCIENTIST VS. NONSCIENTIST

The scientist's handling of information is used as a model for comparison in this discussion because science has developed a highly formalized and elaborated set of rules and procedures for processing information. These rules and procedures represent the most effective problem-solving strategy that has been devised.

Collection of Information

In collecting his information, the scientist is concerned with the reliability of his observations. His concern over reliability involves both problems of definition and problems of observation.

In defining his terms, the scientist tries to be as precise as possible. Unless he can be certain that an event he wishes to study has been reliably observed, he can have little hope of understanding how it relates to either preceding events in the causal chain or future events in the predictive chain. The definition often includes reference to the instruments or ways in which the concept is to be measured and the specific events that fall within the concept.

In sharp contrast to the scientist, the ordinary citizen's problems in living do not center around questions that are easy to quantify and measure. He is concerned with whether or not he is doing right, is sucessful, moral, loved, fair, or happy. To the social scientist, these highly abstract concepts represent unsolved definitional problems. The ordinary citizen, however, is either not aware that he has a definitional problem or is not able to

solve it, if he should be aware.

Even if he has a precise definition of the event he wishes to observe, the scientist must still concern himself with producing a reliable observation of that event. In the physical sciences such reliable observation is made possible by the development of appropriate tests with sufficiently sensitive instrumentation. In the social sciences observations are considered to be reliable if more than one observer can report the same observation (interrater reliability) and if the event is stable enough to be observed similarly on more than one different occasion (test-retest reliability).

Neither the social scientist nor the ordinary citizen is blessed with highly sensitive and reliable instruments for his observations. The latter's main tool for checking his interrater reliabiltiy is consensual validation. This can work well as long as the consensus he seeks is representative and appropriate for the question he asks. If it concerns what other people customarily think, feel, or do in a situation, a representative consensus is appropriate. If the question is factual, however, consensual validation becomes an unreliable and inappropriate method of answering it. For example, to accurately find the distance from A to B, the price of some article, or the hours that the bank is open, methods other than consensual validation are more reliable and appropriate. However, a person might get the right answer to these questions by using consensual validation. The danger is that he will place undue reliance on the method because it seems to work so well and, as a result, will not distinguish between questions of opinion and questions of fact. He thus is apt to encounter difficulties when he is subjected to a deviant consensus that tells him it is bad to feel, think, or act certain ways which are unnatural, immoral, or wrong in some sense. While the concept of "unnatural" has no precise definition as yet, it can be clarified considerably beyond the scope of a single provincial reference group. However, if the individual does not realize he is dealing with a concept that has important factual implications as well as consensual implications, he may never check the factual aspects of the question.

To obtain what is analogous to test-retest reliability for the scientist, the ordinary citizen usually uses repeated observations. As long as his biases don't lead him to see what he expects to see, the method of repeated observations works. However, as concepts

become more nebulous and feelings stronger, the method becomes more and more unreliable. While the social scientist becomes more cautious at these times and turns to rating scales, objective scoring systems, or independent observers, the ordinary citizen generally becomes more and more certain that his own observations represent the true picture, so that the checking process of repeated observations breaks down at these crucial times.

Evaluation of Information

In evaluating his information, the scientist must satisfy the criteria of what Feigl has called "intersubjective testability" and "sufficient degree of confirmation."

By intersubjective testability Feigl (1) means:

> What is here involved is not only the freedom from personal or cultural bias or partiality, but—even more fundamentally--the requirement that the knowledge claims of science be in principle capable of test (confirmation or disconfirmation, at least indirectly and to some degree) on the part of any person properly equipped with intelligence and the technical devices of observation or experimentation.

Intersubjective testability, then, goes beyond the simple requirement that an observation be reliable. It demands that an idea or inference about observations be somehow capable of testing. The careful scientist will take pains to state the evidence he will gather and whether he will regard it as confirming or discomfirming. However, the ordinary citizen (and even the social scientist at times) has more elastic hypotheses. Even after the evidence is in, he may still not be clear on whether his hypothesis is confirmed or not. In addition, he may state his hypothesis in such a way that it is not clear what kind of evidence might possibly be gathered to disconfirm it. This is common in the ordinary citizen's hypotheses about the motives of another person. Whatever the other person might do can be taken as confirmation of these inferences.

By sufficient degree of confirmation Feigl (1) means:

> This second criterion of scientific knowledge enables us to distinguish what is generally called "mere opinions" (or worse still, "superstition") from knowledge (well-substantiated belief). . . . Clearly, in contrast to the first criterion, we face here a distinction of degree (i.e., between scientific and unscientific knowledge claims) . . . . Modern techniques of experimentation   and of

statistical analysis are the most powerful tools we have in the discernment between chance and law and hence the best means of enhancing the reliability of knowledge.

These experimental methods often involve using similar methods with different groups or different methods with similar groups. When the scientist uses statistical analysis he is clearly stating the odds he wishes before his hypothesis is confirmed or disconfirmed.

The ordinary citizen is generally not able to build such safeguards into the interpretation of his observations. That is, he is unable to find out what happens if he does the same thing under different conditions or different things under the same conditions. Again, he may be able to use consensual validation (comparison with the observations of others) as an approximation of comparison groups. He is rarely, if ever, in a position to state the odds he wishes on his hypotheses.

In summary, the ordinary citizen is beset with problems of defining his concepts, observing them reliably, producing them reliably (experimentally), and evaluating them objectively. He suffers most in comparison with the physical scientist. He has, however, much in common with the social scientist. His problems of definition are likely to be greatest with highly abstract or valuative concepts. His problems of observation are likely to be greatest with highly inferential concepts, such as hypotheses about the motives or feelings of others. As a result, he has the greatest difficulties in following scientific methods of gathering information in two of the most important areas of his life.

EVERYDAY INFORMATION PROCESSING

In spite of the seemingly formidable obstacles cited, the vast majority of people do manage their lives. How is this possible? Man seems to have two good sources of information, his cultural heritage and his direct experience. On the other hand, he indulges in some information strategies that keep him from knowing how misinformed he is: self-fulfilling prophesies, two-ended assertions, and untested assertions.

Cultural Heritage

Each person is born with a cultural heritage that provides an enormous amount of information about what the world is like and where he fits into it. While it is true that most of this information was not generated under scientifically adequate conditions, it is the product of endless numbers of trials and errors by masses of people. While it may not be fully accurate, it is accurate enough to form a workable basis for navigation in the world (although history furnishes examples when it wasn't even adequate for that). In short, the individual may acquire many kinds of information which he does not personally have to generate and on which a great deal of his life may be safely based.

Direct Experience

While the adequacy of unquestioned immediate experience is subject to many doubts, some parts of this experience, such as many of the properties of the physical world in which man lives, are relatively unambigious. Man readily learns about the burning properties of fire, the chances of falling under certain circumstances, or the noxious or agreeable taste of certain foods. Again, his information may not be complete or accurate in a scientific sense, but it certainly is adequate for guiding his behavior.

Self-Fulfilling Prophecies

The self-fulfilling prophecy is one kind of self-deluding information-gathering strategy. It involves questions that tend to get answered a certain way because of the way in which they were asked. For instance, a person might assume that people will generally take advantage of him. If he proceeds in certain ways, this assumption can often be proven correct. Thus the individual's behavior may be consistently guided by this information about the world that is essentially correct. However, the premise that the observations obtained are a true reflection of the world at large and are not being produced by the observer is incorrect. The importance of this is that it tends to eliminate from consideration whole ranges of alternative behaviors because of the faulty

conclusion about the underlying structure of the social reality.

Two-Ended Assertions

Two-ended assertions are validated no matter which way the evidence comes back. The same individual with the hypothesis that people will tend to take advantage of him might act rather aggressively and try his best to take advantage of others. If he succeeds, he vindicates his behavior because he is only doing what the other person wished to do to him. If he fails and someone else takes advantage of him, this also validates his hypothesis. In addition, his aggressive behavior might also tend to make this a self-fulfilling prophecy in that it might stimulate others to try to take advantage of him.

Untested Assertions

Untested assertions generally involve situations that are testable in principle, but the evidence for testing them simply isn't available. In some cases this may be because the criterion behavior is too far in the future. That is, whether something is good or bad for a person in the long run may not be known because the validating evidence (assuming the connection could be made) is too many years in the future. In other cases, whether something is good or bad for a person could be known if enough of the currently available evidence were collected. However, no one has gathered the evidence and the assertion is not tested; it is supported by general belief or folklore. This is another instance of testing a question of fact through inappropriate use of consensual validation.

In summary, the individual may acquire much information from his cultural heritage and direct experience that is correct enough to be highly useful. Some other kinds of information may be quite incorrect, but will appear to him to be correct because of the ways he goes about collecting and evaluating it. Thus, information-gathering methods that are quite inadequate for the formal requirements of science may appear quite adequate to the individual in the life situation. Since he has little reason to suspect he is receiving misinformation, he has little reason to take any steps to discover the possible sources of his errors.

A VIEW OF THE PROBLEM

The problem is not that the vast iceberg of unconscious motives that serve as such an effective stumbling block to rational behavior has been painstakingly explored. The problem is that the vast fogbank of ill-defined and unarticulated information that makes the iceberg such a potent obstacle has been largely ignored. Considering the ordinary citizen within his information space, it is evident that even a hypothetical perfectly rational creature would have no chance of acting completely rationally on the basis of the information ordinarily available to him. Any attempt to increase the rationality of the creature through an analysis of his internal states would face the intrinsic limitations of the lack of clarity he has about his external environment. The obvious implication seems to be that both sides of this interaction between the iceberg and the fogbank must be attacked.

Throughout history many have questioned whether man can successfully apply a rational, scientific method to himself and his relations to his fellow man. Such doubts need not trouble us. Such applications can be seen in even the primitive state of our current science. Moreover, it was not so many centuries ago that man populated his physical environment with all sorts of mysterious forces that have some interesting similarities to some of the current psychological theories. However, just within the brief historical time that man began to apply those rules for gathering evidence known as science, there has been an immense increase in the store of human knowledge about his physical environment. There is no intrinsic reason why the same sort of progress couldn't be made with the serious application of the scientific method to human problems. Rather than trying to solve the problems of the world, however, a brief consideration of the implications of all this for the problem of behavior change will be outlined.

IMPLICATIONS FOR THE PROBLEM OF BEHAVIOR CHANGE

Many of the things ordinarily done in the changing of behavior, i.e., interpreting, questioning, reflecting, making new connections, and especially the questioning of defenses, may be

thought of as ways of examining the individual's information-processing strategy. Instead of restating these familiar ideas in new terms, then, the remainder of the paper concentrates on four broad implications: (a) the social structure of the behavior-changing environment, (b) the statement of the problem at hand, (c) the content of the lessons, and (d) the problem of prevention.

The behavior-changing environment should be a social structure within which the individual has the maximum chance to receive accurate feedback about himself, the implications of his behavior to others, and the intentions of others. Above all else, this means open communication among all people concerned and an intent examination of the processes of communication, both verbal and nonverbal. Until shown otherwise, it is assumed that all individuals are to some extent capable of this sort of learning. They may not be able to verbalize the lessons learned, but they should be able to demonstrate the desired changes in behavior.

The statement of the problem is important because the maximum chance for learning to take place requires that both change agent and client have a clear idea of what is to be taught and learned. In the broadest terms, this means that the goals and values of adjustment or effective living need to be clarified. These should be clarified when the individual first comes for help, repeatedly examined throughout his stay, and altered in the face of new information. At present, not all of the concepts commonly used have this clarifying effect. For instance, when a person asks the institutional personnel, "Why am I here?" and the answer is, "Because you are sick," this has not really clarified the situation if what is meant is, "You are doing things that alarm, disgust, or otherwise upset other people." If he continues to question, "What are you going to do?" and the answer is, "Help you get well," the issue again has been befogged. It would seem more helpful to answer, "We are going to help you look at these things you are doing, help you understand why you do them, why other people object to them, and how you might attain the same aim more effectively."

It is not uncommon to focus on the solution of specific problems, whether they be symptoms, life crises, or chronic states of unhappiness. In view of the contention, however, that such problems are maintained or created by ineffective information-processing

strategy of the individual, the main focus of the lesson to be learn- ed should lie in the correction of these ineffective modes of in- formation processing. Thus, the main content of the lessons is in learning how to solve problems rather than solving specific prob- lems. The specific problems would still be attacked as examples of the general problems to be mastered. This is very much like saying that insight into a problem allows better generalization than rote learning. The difference here is that the insight in- cludes insight into problems concerning the information space, as well as internal problems.

Since this analysis of the information-processing problem applies to the general population, as well as the more poorly functioning part of the general population usually involved, the most effective course for prevention may lie in the general educa- tional system rather than in specialized institutions for change, such as mental hospitals and clinics. It may be a good deal easier to teach more adequate information-processing strategies to begin with rather than trying to undo the problems engendered by many years of disordered living. It may also be that mental institutions have something to learn about how to teach from the conventional schools. The conventional schools may, in turn, want to study the unsuccessful end results of the content of some of their teachings.

CONCLUSION

In conclusion, the quick and easy attainment of a utopian state in which all men act logically and rationally all the time is not visualized. The process visualized is that of successive approximations of a more rational world. The situation may be somewhat akin to one suddenly realizing that he really has very poor vision, and the reason he has been bumping into so many things is not because there are so many obstacles but because his vision of them has been poor. The steps he would then logically take would be to improve his vision (information state) and his ways of getting feedback about his environment (information-processing strategies). He would not be living in a different world, but would be taking a somewhat different stance toward it, which could make

possible a far more effective solution of many of life's problems.

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THE SOCIALIZATION PROCESS OF PSYCHIATRIC TECHNICIANS ON A PSYCHIATRIC TEAM

PAT CARLETON, R.N.,* *Assistant Director*
Nursing Service for Education
Fort Logan Mental Health Center, Denver, Colorado

A large number of the people who are involved in the close, day-to-day care and treatment of the psychiatric patient at the Fort Logan Mental Health Center are nonprofessionals who receive what training they obtain through inservice education programs and on-the-job experience. Therefore, part of the success of the treatment program depends upon the training that the nonprofessional employee receives and upon the degree to which he becomes an integrated member of the treatment team.

This paper will present some data and ideas about the nonprofessional employees at the Fort Logan Mental Health Center designated as psychiatric technicians. It will discuss who they are, what happens to them during the initial part of their employment, and how they move from being lay people without specific education about mental illness or psychiatric treatment to being full-fledged members of a psychiatric team. Although specifically concerned with the technician, the observations in this paper may be relevant to the team socialization process of all disciplines.

DESCRIPTION OF THE MENTAL HEALTH TECHNICIAN

Technicians at the center are employed initially as trainees and must satisfactorily complete the six-month training program in order to be certified under the Colorado State Civil Service as

*Box 188, Fort Logan, Colorado.

technicians. Applicants are accepted into the training program after a selection process which includes obtaining a score of at least 100 on the Otis I.Q. Test and an interview by a three-member committee. All applicants must have a high school diploma or G.E.D. equivalent. Approximately 20 per cent of the applicants to the training program are accepted.

Since the first technician class was initiated in November 1961, shortly after the center began operation, 10 classes with a total of 149 members have enrolled in the six-month training program. The observations and figures discussed in this paper were gathered from the first 8 of these classes. Of the 108 applicants who were accepted into these 8 classes, 49 are still employed as technicians. Six others are employed in other positions.

A drop-out rate of over 44 per cent is costly in time, money, and loss of treatment time to patients. Much speculation has occurred on all levels regarding the reasons for this loss. An examination of descriptive data on the technicians revealed the following facts in relation to team placement: (a) Teams which had been functioning longer had lost a larger number, but not proportionally larger, than newer teams. (b) Teams which shared the same living and treatment areas showed more similarity to each other than to teams in other areas which were the same operational age. (c) The team which had lost the largest number of technicians was the team which had also had the greatest turnover in psychiatrist team leaders. (d) The team which had lost the smallest number of technicians was the team which had had the most consistent leadership. (e) The two teams having the most and least loss were the same operational age.

The descriptive data showed few factors which could typify those technicians who succeeded or those who failed in satisfactory employment. The technicians presently employed were shown to range in age from 20 to 58, include most major religious and racial groups, and range in I.Q. scores from 100 to 137. The data also showed that educational background varied from G.E.D. equivalents to high school graduation to bachelor's degrees, and that the men as a group were more likely to be younger, Catholic, and have attended college than the women. A comparison between those technicians still employed and those who are not showed no significant differences in the areas examined.

Assuming the head nurses to be the best judges of which technicians were the "better" ones, the writer interviewed each of them and elicited value judgments about which technicians assigned to their teams were the "best" and "worst." A comparison of that group of technicians rated as "best" with the "average" group showed three differences. The "best" women technicians were older and had more education than their "average" counterparts, and both men and women in the "best" group were more likely to be married than the "average" technicians.

PERFORMANCE AND BEHAVIOR CRITERIA

Because few objective criteria of success or failure in a technician's career at the center are available, other, less easily measurable characteristics must be used to determine the probability of success. The ideal technician was described by the interviewed head nurses as follows: The ideal technician is one who is able to discipline himself in his work habits, demonstrates an interest in learning, is bright and able to transfer learning, is sensitive to others' feelings, is able to solve problems, has an ability to look at and modify his own behavior, can be open and direct about his own feelings, is warm and giving, yet able to set firm limits, and can assume responsibility. The ideal technician is, in a word, mature.

The significant factor in this description of a paragon of all virtues is not that the head nurses dared to fantasy him at all but that they believed that they had such a person on their own teams. In several instances, when describing the ideal technician, they referred to earlier descriptions they had given about a "best" technician.

The desired behavior and performance of technicians the head nurses described fell into four categories: work habits, patient relationships, supervisory relationships, and team relationships. Although factors in each of these categories were considered important, there were strong indications that those of team relationships were considered to be more important than the others. The factors cited as important in this area were: participation and sharing on a verbal level, interdependence on the team (i.e.,

offering support to other team members and relying on them for support), feeling a part of the team and contributing to the team spirit, relating to the team as a whole rather than to any individual team member, and "believing" in the team.

Almost paradoxically, the team demands allegiance but does not base acceptance on it. Those technicians who work the hardest and are the most anxious to be accepted as team members frequently have the most difficulty.

If, as indicated by the head nurses and supported by general agreement and observation by other staff members, the degree of team membership is an important factor in successful employment, the process by which the technician becomes a team member is a pertinent area for exploration.

THE SOCIALIZATION PROCESS

Phase I. The Selection

The process of socialization begins with the selection procedures. The intensity of the process and the general attitudes expressed during selection communicate to the applicant that only special people are acceptable. The interview procedure forces the applicant to give opinions and reveal feelings he frequently believes will weigh against him. The group which is finally selected is composed of members who have several things in common. They are all apparently healthy and mature, they are interested in the treatment of mental illness, they are interested enough in employment at the center to wait through and tolerate the selection process, and they meet the I.Q. and educational requirements.

Phase II. The "Honeymoon"

This phase lasts approximately one month, during which time the trainee is in formal classes and receives only limited clinical experience. His primary contacts are with his classmates and the nursing instructors. Classes are mostly informational and general. The major learning experiences at this time are related

to functioning as a group member. The trainee is encouraged to discuss ideas and feelings, to become comfortable in an informal setting, and to believe that he is potentially a "good" psychiatric technician. The instructors make every effort to provide support, emphasize the importance of the technician's role, and increase the cohesiveness of the group.

The trainee is carefully prepared for his initial contacts with patients. These initial contacts are usually "successes." He has been introduced to a theoretical background for the treatment rationale and, as a result, feels confident, self-assured, and eager to spend time on the clinical unit. The classes work smoothly during this phase. The technicians identify with each other as members of a special group, refer to themselves as "we," and have usually had a class party by this time. They participate in class freely, share their experiences, and ask intelligent questions.

The teams become aware of the trainee's increasing self-confidence by his beginning participation in team meetings, his interaction with patients, and much to their dismay, embarrassment, and frequently anger, his criticism of the teams' operations.

Almost simultaneously three factors operate to interrupt the "honeymoon." (a) The trainee had his first examination and is confronted with the cold reality that he is expected to learn those things which have been discussed so casually and informally. It is not uncommon for several to fail the first examination. (b) He has faced his first group evaluation, in which class members are asked to evaluate themselves, each other, and the instructors. Coupled with this is the anxiety aroused by learning that behavior has meaning beyond the obvious and that patients frequently behave no differently than nonpatients. (c) By this time at least one, and usually two, class members have left the group either by resignation or discharge, which arouses suspicion, anger, anxiety, guilt, and fear of failure to varying degree.

Phase III. "Limbo"

This phase begins approximately at the beginning of the second month and continues for six to eight weeks. The increased anxiety and frustration in class, together with encouragement from

the instructors and increased time on the clinical unit with de-
creased anxiety in the work situation, stimulate the trainee to
begin to identify with his team and look to it for support. Log-
ically it would seem to be a natural transition for both the trainee
and the team, but is not. His status on the team at this time is
less than nothing. He is viewed as a nuisance. He does not
know the team's private communication system and is never there
long enough from the team's point of view to be considered useful.
His increased comfort with patients is apt to entice him into
difficult situations beyond his skill. Other team members have to
divert time and energy from patient treatment to intervene.

Aware of the status and importance of team identification,
the trainee spends most of his time attempting to achieve recog-
nition as a team member. He tries to learn the team language
and philosophy. He takes on the value system of the team and
assigns priorities to team activities, often rejecting classes.
His anxious attempts frequently backfire, and he meets more
resistance.

The pressures during this third phase are the most difficult
of the training period. In his attempt to become a member of a
valued group, he has frequently rejected his original group member-
ship. Not having been accepted into the new group, he belongs no-
where. His feelings of fairly high self-esteem are replaced by
those of rejection and failure.

Phase IV. Reestablishment

This fourth phase begins when the trainee is assigned to the
team 32 hours a week, begins to rotate shifts, and is in class
two half days per week. This pattern of assignment is followed
from the third month until the training period is finished.

Without exception, the head nurses identified this change in
schedule as the point at which the trainees become team members
rather than visitors or students. The reasons for this are: (a) The
trainee assumes "his share" of the work and responsibility of the
team. (b) Assuming and carrying out the responsibility indicates
to other team members that he is able and can be trusted. (c) Be-
ing given responsibility increases his self-confidence and feeling
of security. (d) He becomes more involved in the team as he is

forced to seek support and validation from its members as a result of decreased class time and resultant loss of much of the support provided by the instructors.

Technicians themselves identify three criteria for measuring acceptance on the team: (a) They are given specific responsibilities. (b) Team members, especially the team leader, remember their names. (c) When they are asked for an opinion, it is respected rather than ignored.

After team membership becomes more firmly established, the trainees alternately respond to classes with an eagerness to learn in order to function more effectively and with impatience for classes to be over so they can be full-time team members. Throughout the training period, however, the classes and instructors provide sources of support. This is particularly noticeable when there are difficulties on the team. Classes are frequently used to obtain relief from the strenuous demands of the team work situation.

This fourth phase is one in which the trainee, if he is successful, gains his membership on the team, regains his self-confidence, and identifies his work role. He has learned and accepted the value system and formal and informal structure of the team.

By the end of the first month of this phase, the question of the trainee's continuing his career as a technician is usually resolved. His performance in class usually parallels his performance on the team, but there have been times when the team and the instructors have disagreed. The disagreement usually has its basis in the difference in emphasis. The instructors base their judgments on classroom performance and observed and reported interaction with patients. The teams, represented by the head nurses, base judgments on "how he is doing on the team" or how invested the team is in him, which frequently has little to do with his patient interaction.

A part of gaining team membership is learning and responding to the "team model." Teams vary from each other and from the classroom model in the expected behavior of a "good" technician. There is no consistent format for the technician to follow.

The fourth phase is marked by the end of classes and a formal graduation ceremony. On most of the teams the only discernible difference brought about by the end of this phase is the technician's increased time on the team. His actual role on the

team changes very little.

Phase V. Testing

On two of the teams a fifth phase was identified. After graduation, the technician goes through a period resembling the second phase described. He feels and behaves as though he knows it all and assumes more and more responsibility. It is only after he has gotten himself into trouble and has acknowledged this by turning to the team for help that he achieves "senior" team membership.

SUMMARY AND DISCUSSION

The major criterion for success as a psychiatric technician at the Fort Logan Mental Health Center depends not on the therapeutic skills the technician develops in his relationships with patients but on his ability to adapt to the role expectations of his team in the area of staff relationships.

In the course of learning these role expectations, the technician moves through several distinct stages. Initially he belongs to a class group which provides support and security but prevents his acceptance as a team member. Later he achieves team membership but only after a difficult period of searching and being tested. His ultimate success depends on his ability to identify and adapt to the team requirements for membership.

The first requirement for team membership is conformity to and an intensive initiation into the cohesive ingroup which constitutes the team. The technician must demonstrate his desire for acceptance and work diligently for it. He must learn to believe that his is the "best" team and give undivided loyalty to it. He proves his loyalty and belief when he rejects his original group identification and devotes attention to the team.

The second requirement for team membership is that the aspirant work as hard, carry as much responsibility, and struggle with as many problems as every other team member.

The third requirement, which is much more difficult to identify and learn, is that the technician relate to the group rather

than to individuals in the group. In the way in which the teams operate, the team becomes a "person" with its own personality and characteristics. It has its own way of dealing with problems, making decisions, giving approval, and censuring. These characteristics may be very different from the beliefs and operations of individual team members, but the team supersedes the individuals.

It is likely that team members of other disciplines encounter a process similar to the socialization of technicians on a team. Members of other disciplines come directly to the team without the prior identification with a class. However, their identification with their discipline group may be the counterpart. If the previous observations are correct, the more one identifies with his discipline, the less he identifies as a team member, and the more difficult acceptance on the team becomes.

The period of initial rejection and testing is probably also pertinent, and the individual would have to demonstrate his desire for membership by performance "above and beyond the call of duty." More important, perhaps, is the identification and adoption of the model of the team-member role and relationship to the team as a whole. This might well be more difficult for those who are more accustomed to directing and ordering than are the technicians.

Although the premise that staff relationships is a more important criterion than patient relationships may be somewhat disconcerting, it seems quite feasible that the two are closely related. It is likely that team membership insures that team plans and program for patients are consistently carried through. Those people who are able to identify and learn the team expectations are also quite likely to be more perceptive and able to work more effectively with patients.

TEEN GROUP I:
A PILOT PROJECT IN GROUP THERAPY WITH
ADOLESCENT CHILDREN OF ALCOHOLIC PATIENTS

DONALD M. FAIRCHILD, A.B., B.D.,* *Pastoral Counselor*
Alcoholism Division
Fort Logan Mental Health Center, Denver, Colorado

Teen Group I was the first program offered to the teenaged children of parents receiving treatment in the Alcoholism Division of the Fort Logan Mental Health Center. The project was initially structured as a 12-session series of meetings. The program structure of the club was basically the same as that discussed by Helen I. Driver in *Counseling and Learning Through Small Group Discussion* under the heading of "Personology Clubs."(2) The first six meetings were open to any teenager whose parents were or had been involved in treatment. These meetings consisted of movies about alcoholism and basic emotions such as fear, anger, and depression, followed by brief group discussions. Only those who had attended at least two of the first six sessions were eligible to participate in the last six meetings, which consisted of group discussion and counseling. At the last of the six closed sessions, the group was informed that eight additional sessions would be made available to those interested. Thus, the group met once weekly from June 1963 through October 1963.

In addition to the general goal of learning more about alcoholism, its treatment and prevention, the club adopted the following goals recommended by John M. Price (3): (a) mutual acceptance and freedom of discussion, (b) release of tension and attainment of insight through discussion, (c) understanding and redirecting impulsive drives, and (d) maturation of feelings and responsibility for others.

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*Box 188, Fort Logan, Colorado.

The techniques and tools utilized in pursuit of these goals and in the evaluation of the group were: the Mooney Problem Check List, the Minnesota Multiphasic Personality Inventory, projective drawings (done round-robin style with each member contributing to each other member's drawing), role playing, "sitting-in" or "behind-the-back" discussion (with one member placing himself on the "hot seat" and listening passively while the rest of the group talked about his personality), group dynamics diagrams and flow charts, and group evaluation questionnaires.

A total of 15 adolescents showed up for the 6 open sessions. Of these 15, 12 (8 girls and 4 boys) enrolled for the closed sessions. The age range of the majority of this group was from 14 through 17. In addition, two 21-year-old members were allowed to remain for the closed sessions by consensus of the group.

The Minnesota Multiphasic Personality Inventory was administered to 11 of the 12 group members enrolled for the closed meetings, and interpretations were provided by a staff psychologist. Profiles were obtained from eight girls and three boys. Four of the eight girls had significantly deviant profiles. Three of these showed neurotic patterns of moderate severity; one had a profile characteristic of those obtained from paranoid schizophrenics. These four girls all showed marked distrust and suspiciousness in their interpersonal relationships. The three boys all presented significantly deviant profiles, and all peaked at the same level on the Psychopathic Deviate scale. All three were from the same family; all had been previously described as behavior problems and were diagnosed as potentially delinquent. In summary, seven of the eleven group members tested showed significantly deviant MPI profiles. It should be noted, however, that personality test results are often unstable in the adolescent age range.

The Mooney Check List was filled out by the members following the sixth open session to give the counselor a better idea of significant problem areas that would serve as discussion topics at the first closed sessions. The check list provides 11 problem area groupings. Individual totals were added to obtain an indication of problem areas common to the group as a whole. The five most significant areas were: (a) personal psychological relations, (b) social psychological relations, (c) home and family problems, (d) social recreational activities, and (e) moral and

religious issues.   The initial closed-session discussions were
structured around subjects related to these five areas.

Some of the general discussion topics included: "How Do I
Develop Self-confidence?" "How Does a Family Become Closer?"
"How Far Does One Go Along with the Group in Drinking?" "What
are Male and Female Roles in Our Society?" "Dating and Pet-
ting," and "How Do We Handle Our Emotions?" Not all sessions
were structured, and often the topical sessions progressed to a
deeper personal-interpersonal level. Leadership frequently changed
as different members spontaneously assumed leadership. Occa-
sionally a group discussion leader was appointed by the group a
week in advance. The group dynamics interaction charts revealed a
very interactive group in which one member was withdrawn; she
was eventually drawn out by the group, but never became verbally
assertive.

The first round-robin projective drawings were very defensive
both in colors utilized and subject content. The second set of
drawings showed less defensiveness and revealed strong aggressive
feelings (particularly among the boys), authority conflicts, subtle
paranoid attitudes, threatening sexual impulses, and unfulfilled de-
pendency needs. Interpretations of the drawings were made by
both the group members and the counselor. The group found the
drawings to be helpful and enjoyable.

The "behind-the-back" or "sitting in" technique and role
playing, described in Bach's *Intensive Group Therapy* (1), was used
to involve the members more personally in the group. They par-
ticularly seemed to favor "behind-the-back" discussion in final
sessions. It seemed they had both the rapport and individual ego
strength to make them willing to hear what the other group members
really thought of their personalities. No undue pressure was
applied to any member to get on the "hot seat," but all wanted to
take their turn at "sitting in."

At the final session an eight-item evaluation questionnaire
was distributed to the members and then returned to the counselor
without identification. The questions asked were: (a) "Do you
feel you understand yourself better?" (b) "Did the discussions
and observations help you understand and accept others better?"
(c) "Do you feel your group experience will help you to be more
tolerant and understanding in the future?" (d) "Were you helped

with personal problems, either directly or indirectly?" (e) "Suggest ways of improving the group program," (f) "List personal insights gained through participation," (g) "Would you like to be a member of this type group again?" (h) "Did you first attend the group because of parental pressure?" To questions a, b, c, and g, all answered yes. To question d, 85% answered yes and to h, 50% answered yes. Suggestions for improvement (question e) included: more direct questioning of individuals, more topics, close proximity of ages, unlimited number of sessions, and greater publicity for the program. Personal insights (question f) listed included: better understanding of myself (listed most frequently), better relationship with others (second most frequently listed), better understanding and relationship with parents, and better self-expression. No question was asked regarding an increased understanding of alcoholism, as it was assumed that the movies and discussions about alcoholism provided increased knowledge in this area.

It is the author's impression that the group seemed to provide the members such benefits as self-understanding and better relationships. It was not intended to be intensive therapy or depth group analysis. The participants' comments on the questionnaires and their verbal comments in individual interviews indicated they had profited individually and collectively from the program. They demonstrated loyalty to the group by their regular attendance; although 1 of the 8 members who remained for all 20 sessions missed 4 meetings, others missed only once or twice at most and usually provided valid reasons for their absenses.

A limited number of sessions appears to have several advantages, even though a few group members expressed a desire for an unlimited number of sessions. This type of program seems to work out best when limits are set and when the series is concluded before interest is exhausted. A similar program had been attempted previously on the basis of an unlimited number of sessions, and was terminated when attendance dwindled to three members. Loss of interest occurred following 20 sessions, and the group disbanded at the 25th session. Intensive programs could well go beyond 20 sessions, but with a relatively normal group, the finite-series structure seems preferable.

Our experience with this group and with three previous ones

suggest that group therapy for adolescents deserves much more utilization and study. In these groups, it was our impression that this approach has provided an effective way of meeting some of the emotional needs of the adolescent in the alcoholic patient's family.

A Teen Group II is now functioning and providing encouraging results. We anticipate that projects of this type will become a regular part of our family treatment program. In the near future we hope to offer an advanced adolescent counseling group for those who desire to continue therapy beyond the program described in this report. Such an advanced group would provide more intensive therapy to adolescents than is offered in the teen-group series.

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VARIABLES RELATED TO PROGNOSIS:
The Relationship Between Actual Treatment Outcome and Hypotheses Drawn From the Literature*

DOROTHY RIDDLE,** *Student Assistant*
Research Department
Fort Logan Mental Health Center, Fort Logan, Colorado

INTRODUCTION

This paper is one of several of a study examining the relationship between certain demographic variables and the prognosis of a patient involved in a therapeutic-community treatment program. This kind of program is generally aimed at increasing the patient's ability to function in the community by focusing on the development of social skills. It also emphasizes the therapeutic value of all of the patient's activities and personal contacts. Since it is conceivable that certain persons would benefit more from this type of treatment than would others, an attempt has been made in this paper to explore the question of which kinds of patients tend to do better when treated in this manner. However, this paper does not deal with the question of whether these patients would also have done well in a more traditional treatment setting or whether they, indeed, might have done better there.

Since most of the research in the area of treatment outcome has been done with schizophrenics, it is difficult on the basis of the existing literature to make general predictions about the probable outcome of members of the entire patient population. Also,

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it may not be possible for the findings of research conducted in
more traditional treatment settings to be generalized to the newer
forms of treatment such as the therapeutic-community approach.
With these qualifications in mind, the following review has been
made of the relevant studies in the prognostic literature and their
findings.

Both Small (3) and Zubin (4) have drawn up charts in which
they summarize the findings of previous investigations.   Small
states that upper socioeconomic class, good educational history,
married status, and an age of under 30 years are favorable prog-
nostic indices in schizophrenia; while lowest socioeconomic class,
unmarried status, and an age of over 35 years are unfavorable prog-
nostic indices.   Zubin reports that married status (four studies),
limited education for females (one study), and an age of between
20 and 40 years (four studies) are favorable prognostic indicators
in schizophrenia; whereas male sex (four studies) is unfavorable.
Schofield et al. (3) in a study involving 210 schizophrenics found
that the younger patients did better, but that sex, education level,
and marital status made no significant difference.   On the other
hand, Pascal et al. (1) in a study of 486 discharged patients from
all diagnostic groups found no relationship between outcome and
sex, age, or educational level.   The factors which they found were
significantly related to treatment outcome were marital status--with
married patients doing better; diagnosis--with patients with affec-
tive psychoses doing best, psychoneurotics doing next best, and
schizophrenics doing worst; and amount of time spent in the hos-
pital--with the prognosis being poor if the patient has been in the
hospital over two years.

HYPOTHESES

Taking these findings into account, the following hypotheses
were formulated for the purposes of this study:

1.   If the patients are divided according to affective psy-
choses, schizophrenia, psychoneuroses, and character disorders,
those with affective psychoses should respond better to treatment
than should the schizophrenics, with those with psychoneuroses
falling in between these two groups.   Although no prediction can

be made about the relative response of the character disorders on the basis of the literature, intuitively it would seem that they should respond more poorly than the schizophrenics.

2. The female patients should respond better to treatment than the male patients.

3. Married patients should respond better to treatment than should the unmarried patients (i.e., those who are single, divorced, separated, or widowed).

4. Male patients with more education should respond better to treatment than those with less education.

5. Female patients with less education should respond better to treatment than those with more education.

6. The younger patients should respond better to treatment than the older ones.

7. After at least 14 days of hospitalization, the shorter the length of stay in the hospital, the better the response to treatment. (This prediction was made because, as patients spend longer periods of time in the hospital, they tend to become chronic.)

METHODOLOGY

The patient group under consideration in this paper was composed of all first admissions to the Psychiatric Division of the Fort Logan Mental Health Center who were discharged by April 30, 1963 (N= 234). All of those patients who had remained at the hospital for less than two weeks were eliminated from the study group because there was not sufficient information on them. All patients with diagnoses of organic brain syndromes or mental deficiency were also omitted, as were those patients who were subsequently transferred to other hospitals for the treatment of complicating physical disorders or who committed suicide. The specific independent variables considered for these patients were the following:

1. Information given at the time of admission: (a) sex, (b) age--nearest whole calendar year, (c) education--number of full years of school completed, and (d) marital status--single, married, divorced, widowed, separated (legally or otherwise).

2. Primary provisional diagnosis as recorded on the Mental

Status Examination, which is completed during the second or third week after the patient's admission. (The nomenclature used is that of the Diagnostic and Statistical Manual of Mental Disorders, Washington, American Psychiatric Association, 1952.)

3. Number of days in the hospital, i.e., the total number of days between admission and discharge.

Two dependent variables, or measures of actual treatment outcome were used:

1. Response to treatment in terms of improvement. (The numerical values are given below):
   1-unimproved
   2-slightly improved
   3-moderately improved
   4-markedly improved
   5-recovered

2. Percentage of all first admissions through April 30, 1963 having the characteristics under consideration who were discharged by April 30, 1963.

RESULTS*

In analysing the results, the patients were first treated as an entire group. If no significant relationships were found when the data were handled in this fashion, corrected figures were then used; that is, all patients who were discharged against medical advice, without medical advice, or were absent without leave were eliminated, so that only those patients discharged with maximum or substantial hospital benefit were considered.

The correlations and analyses of variance cited were computer-programmed; all other statistics were computed by the researcher. Since all of the hypotheses predicted the direction of the relationships, one-tailed tests were used.

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1. *Diagnostic Groups*

The hypothesis was that if the patients were divided according to affective psychoses, schizophrenia, psychoneuroses, and character disorders, those with affective psychoses should respond better to treatment than the schizophrenics, with the psychoneurotics falling in between the two groups. Although no prediction can be made about the relative response of the character disorders on the basis of the literature, intuitively it would seem that they should respond more poorly than the schizophrenics.

As can be seen in Table 1, the patients with affective psychoses seemed to respond best to treatment, while those with psychoneuroses did next best, the schizophrenics were next, and the patients with character disorders did most poorly. Since the differences in mean response to treatment between the various diagnostic groups were all statistically significant at $p < .005$ (except the difference between the affective psychoses and the neuroses), these data support the hypothesis.

TABLE 1

OUTCOME MEASURE RESULTS BY DIAGNOSTIC GROUPS

	N	Mean Response	% Discharged	% Discharged n(corrected)
Affective Psychoses	28	3.3	51%	38%
Psychoneoroses	63	2.7	54%	32%
Schizophrenia	103	2.4	40%	24%
Character Disorders	40	1.5	47%	16%

The ranking for the percentage of admitted patients discharged in each diagnostic group is the same as that for mean response to treatment, *provided* that the figures used have been corrected for circumstances at discharge. (See Table 1.) In other words, patients with affective psychoses have the best outcome, the neurotics the next best, the schizophrenics poorer, and the character disorders the poorest. The ratio of discharged to non-discharged patients in the various diagnostic groups is statistically

significant ($x^2 = 11.0$, $p < .01$).

2. Sex

The hypothesis was that the female patients should respond better to treatment than the male patients.

A t-test between the mean response to treatment for the two sexes revealed no significant relationship between the sex of a patient and rated response to treatment at the time of discharge; in other words, the clinicians see no substantial difference between the two sexes in terms of their improvement as a result of treatment. A greater percentage of the admitted females were discharged (41.3%) than was true for the admitted males (39.4%), but the chi square was not significant even when corrected figures were used.

3. Marital Status

The hypothesis was that married patients should respond better to treatment than should unmarried patients (i.e., those who are single, divorced, separated, or widowed).

The study data showed no significant difference between the mean responses to treatment for the married versus the unmarried patients; however, if married patients are compared only to single patients the difference in mean responses becomes significant ($t = 4.49$, $p < .001$). Apparently, clinicians see married patients as responding significantly better to treatment than single patients, although they see no substantial difference between married individuals and all other patients. Despite the fact that a greater percentage of the admitted married patients were discharged (45.66%) than of the admitted unmarried patients (41.3%), the difference was not statistically significant. If, again, the percentage of discharged married patients (45.66%) is compared only to the percentage of admitted single patients who were discharged (36.22%), the difference is greater ($x^2 = 3.09$, $p < .05$).

4. *Education*

The hypothesis was that male patients with more education should respond better to treatment than those with less education.

The study data showed that male patients with 12 years of education respond significantly less well to treatment than do those patients with less than 12 years ($t=2.02$, $p<.025$) or those with more than 12 years ($t=2.5$, $p<.025$). However, there was no significant difference between those patients with less than 12 years of education and those with more than 12 years. If only a fairly homogeneous diagnostic group such as the depressive patients are considered, though, the hypothesis is upheld. (See Table 2 for mean response figures for the various male education groups.) In this group of patients, the males with more than 12 years of education *do* respond significantly better to treatment than do the males with less than 12 years ($t= 9.1$, $p<.001$).

TABLE 2

MEAN RESPONSE FIGURES BY EDUCATION GROUP

	0 - 11 yr. education	12 yr. education	13 + yr. education
All male patients	2.3	1.3	2.6
Male depressives	3.0	3.2	4.0

In terms of the percentage of patients discharged, the chi square revealed no significant difference between the low and high education groups.

5. *Education*

The hypothesis was that female patients with less education should respond better to treatment than those with more education.

The study data for all female patients showed no significant difference between females with less than 12 years, 12 years, or more than 12 years of education; however, there were significant differences between these three groups when the only depressive

patients were considered. (See Table 3 for mean response figures
for the various female education groups.) In this group of patients,
the females with less than 12 years of education *do* respond signifi-
cantly better to treatment than do the females with more than 12
years ($t = 4.21$, $p < .001$).

TABLE 3

MEAN RESPONSE FIGURES BY EDUCATION GROUP

	0 - 11 Yrs. Education	12 Yrs. Education	13 + Yrs. Education
All female patients	2.4	2.53	2.42
Female depressives	3.3	2.8	2.85

In terms of the percentage of patients discharged, the chi
square revealed no significant difference between the low and
high education groups.

6. *Age*

The hypothesis was that the younger patients should respond
better to treatment than should the older ones.

The study findings on rated response were the reverse of
the prediction made. There was a significant positive relation-
ship between age and response to treatment ($r = .289$, $p < .005$),
such that *older* patients received better response ratings. Table 4
gives the mean ages of the patients in the various response cate-
gories.

TABLE 4

MEAN AGE BY RESPONSE CATEGORY

	Recov.	Mark. Imp.	Mod. Imp.	Slightly Imp.	Unimproved
Mean Age	56.0	40.2	36.3	31.1	32.6

The difference between the percentage of patients under 35 years of age who were discharged (46.7%) and the percentage of patients over 35 who were discharged (26.89%) was significant (x^2 = 18.27, $p <$ .001), but the difference was such that more *younger* patients were discharged.

7. *Number of Days in the Hospital*

The hypothesis was that after at least 14 days hospitalization, the shorter the length of stay, the better the response to treatment.

Contrary to the hypothesis, the study data showed that there was a significant positive relationship between the number of days in the hospital and rated response to treatment (r = .464, $p <$ .005). Thus the patients who stay longer are the ones who are seen by clinicians as having responded better to treatment. Table 5 gives the mean number of days for patients in the various response categories.

TABLE 5

MEAN NUMBER OF DAYS BY RESPONSE CATEGORY

	Recov.	Mark. Imp.	Mod. Imp.	Slightly Imp.	Unimp.
Mean number days	371.3	200.5	194.6	154.5	109.3

DISCUSSION

Table 6 summarizes the results of this study. The level of significance for the relationships between the specific independent variables and each of the dependent variables is given, with the direction of the relationship indicated.

TABLE 6

SUMMARY OF THE RESULTS

	Response to Treatment	% Discharged
Diagnosis	.005 (predicted)	.005 (predicted)
Sex	N.S.	N.S.
Marital Status	.001*	.05*
Education, Males		
All patients	N.S.	N.S.
Depressives	.001 (predicted)	.001 (predicted)
Education, Females:		
All patients	N.S.	N.S.
Depressives	.001 (predicted)	.001 (predicted)
Age	.005 (reverse)	.001 (predicted)
Number of days	.005 (reverse)	

* Partial support.

Diagnosis appears from this study to be the best sole pre-
dictor of a patient's treatment outcome, since each of the other
independent variables appear to be related to it in some manner, as
will be demonstrated further on in the discussion. The exact
nature of the relationship between diagnosis and actual treatment
outcome, however, is difficult to determine. Are certain diagnostic
groups inherently "better bets"? Do staff members give differen-
tial treatment to patients with certain diagnoses--e.g., do they
expend more effort on helping depressed patients than on character
disorders? Or do clinicians assign diagnoses on the basis of how
well they feel the patient will do in treatment, so that some diag-
noses are "better" than others?

Only partial support was found for the hypothesis concerning
marital status. It was predicted that there would be a significant
difference between married patients and all other individuals in
terms of treatment outcome, but the difference was significant
only when married patients were compared with single patients.

Age was related to response to treatment, but in the opposite
direction to the prediction. One factor which may explain the
direction of this relation is that there is a difference between the

various diagnostic groups by age, as reflected by the significant interactive relationship found between age, diagnosis, and response in the analysis of variance. (See Table 7 for the relevant statistics.)

TABLE 7

ANALYSIS OF VARIANCE OF RESPONSE TO TREATMENT, DIAGNOSIS, & AGE

Source	Sum of Squares	df	Mean Squares	f	p
Diagnosis	7.39	3	2.46	7.80	.001
Age	0.92	3	0.31	0.97	N.S.
Interaction	23.77	9	2.64	8.36	.001
Error	52.10	165	0.32		

The patients with affective psychoses and neuroses, who respond well to treatment, are older than the patients who are schizophrenics and character disorders, who do not respond as well to treatment. (See Table 8 for mean age and mean response.)

TABLE 8

MEAN RESPONSE, AGE, AND NUMBER OF DAYS FOR DIAGNOSTIC GROUPS

	Affec.	Neuroses	Schiz.	Char.
Mean Response	3.3	2.7	2.4	1.5
Mean Age	54.7	35.3	33.7	29.0
Mean No. of Days	194.4	150.7	139.7	87.6

The reversed relationship between the number of days a patient spends in the hospital and his response to treatment might also be explained in terms of the relative ages of the various diagnostic groups. Here again there was a significant interactive

relationship in the analysis of variance, this time between age, number of days, and response. (See Table 9 for the relevant statistics.) As can be seen from Table 8, patients with affective psychoses and neuroses tend to be older, stay longer, and respond better to treatment.

TABLE 9

ANAYLSIS OF VARIANCE OF RESPONSE TO TREATMENT, AGE, & NUMBER OF DAYS

Source	Sum of Squares	df	Mean Squares	f	p
Age	14.36	3	4.79	30.49	.001
No. of Days	4.61	4	1.15	7.35	.001
Interaction	21.39	12	1.78	11.36	.001
Error	25.27	161	0.16		

However, there are several other possible explanations. Does it just take a long time for the Fort Logan program to affect and help a patient? Are the clinicians unwilling to say that a patient is improved unless that patient has been around for a long time? Are these improved patients so pleasant to have around that the teams just do not discharge them until they absolutely have to? Is the length of stay related to the diagnosis of the patient, with some diagnoses taking longer to treat but yielding good results? (This last explanation seems unlikely on the basis of the fact that no interactive effect was found in the analysis of variance of between diagnosis, number of days, and response.)

The findings on education are difficult to interpret. Although the difference between low and high education groups were not significant for either sex when all patients were considered, these differences were significant if only depressed patients were considered. Further study is necessary to determine the exact relationship between education and diagnosis, as well as that between education and age. (See Table 10 for statistics on this interaction.)

TABLE 10
ANALYSIS OF VARIANCE OF RESPONSE TO TREATMENT, EDUCATION AND AGE

Source	Sum of Squares	df	Mean Squares	f	p
Education	2.31	2	1.16	5.19	.01
Age	3.40	3	1.13	5.08	.01
Interaction	10.86	6	1.81	8.13	.001
Error	37.63	169	0.22		

From Figure 1 it can be seen that the education groups begin at about the same level, and their response to treatment tends to become better with increasing age.
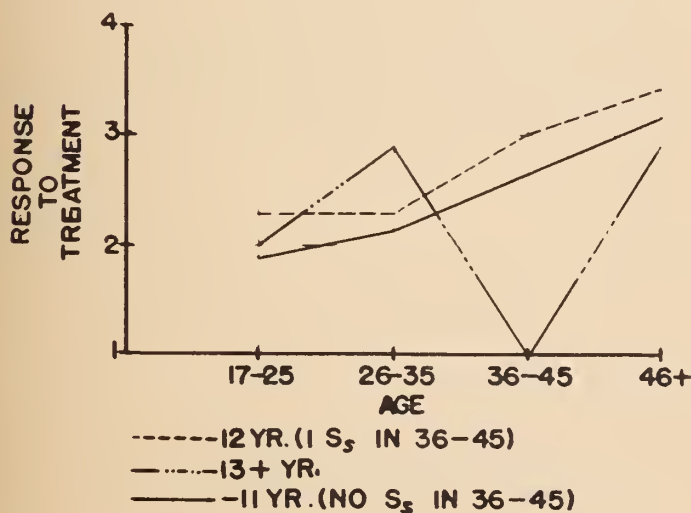

Figure 1. Relation between education, age, and response to treatment.

Despite the fact that sex was not found to be directly related to treatment outcome, a significant interaction was found in the analysis of variance. Table 11 presents the relevant statistics for sex, age, and response to treatment.

TABLE 11

ANALYSIS OF VARIANCE OF RESPONSE TO TREATMENT, SEX, AND AGE

Source	Sum of Squares	df	Mean Square	f	p
Sex	1.06	1	1.06	10.06	.01
Age	5.75	3	1.92	19.84	.001
Interaction	5.77	3	1.92	19.91	.001
Error	16.72	173	0.10		

Figure 2 shows that while both females and males start out in younger age groups with a relatively low response to treatment and they both tend to do better as they grow older, females tend to do better at a faster rate than do the male patients.
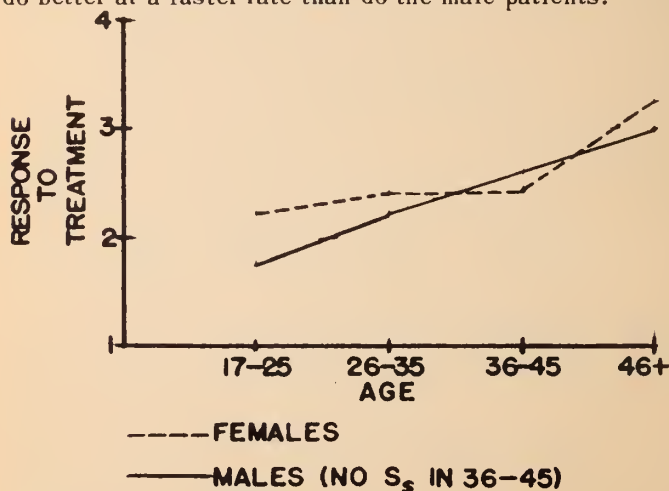

Figure 2. Relation between sex, age, and response to treatment.

There are several qualifications which should be made about the measures used in this study. Of the many ways to assess treatment outcome which could have been used, two were selected arbitrarily for the purposes of this study, rated response to treatment made at the time of discharge and the percentage of admitted patients discharged. Objections can be raised to the use of rated response to treatment, especially since this measure constituted the major dependent variable. It is not unusual for the person rating response to treatment at the time of discharge to be the same individual who completed the patient's Mental Status Examination shortly after admission, so that the two sets of data are not independent. Moreover, if clinicians' recall of previous ratings can be eliminated as a source of error, the problem of response bias remains. Staff members might only give good response ratings to patients who have been on the team for a long period of time, or they might only give good response ratings to patients to whom they had previously given "good" diagnoses.

Apart from the problem of criterion definition, the handling of many of the analyses by computer program necessitated groupings of the data that may not, as it now appears, have been entirely appropriate. Lacking evidence to enable groups or classes to be established on empirical grounds, patients were grouped in such a way as to make frequencies in all categories roughly equal when the total patient population in the period of time covered by the study was considered (i.e., both discharged and nondischarged patients, N 516). The results on marital status is a case in point. While there was no significant difference between married and unmarried patients, there was a significant difference between married and single patients.

Limitations were also made on the data by the Fort Logan Record System, since the data had to be used by the researcher in the form in which it had been collected. Thus, the figures used for the number of days the patients were in the hospital were the total length of time from admission to discharge; however, different results might have been obtained if the figures reflected only the number of days spent in *active* treatment by the patients. The diagnostic system used is another example. The conventional four diagnostic groups were used in this study; but other research in progress indicates that the character disorders, for example, are

not really all one group, and similar criticisms can be made of the
other groupings.

Other variables, which may well be important, were ignored
in this study. No analyses were made by team, for example, al-
though studies under way since the analysis of this data tend to
show systematic differences between the psychiatric teams.

Several times in the results sections corrected figures were
cited, certain patients having been eliminated from the study be-
cause of the circumstances at their discharge. The researcher
felt that this was justified since in all cases, with only minor ex-
ceptions, the trends for the uncorrected group and the corrected
group were the same except that the relationships were more signifi-
cant for the corrected group. However, it should be noted that the
patients in the corrected group (i.e., those patients who were dis-
charged as having received maximum or substantial hospital bene-
fit) composed only 49.8% of the entire discharge group under con-
sideration; in other words, over 50% of the patients were eliminated.

In view of the goal of Fort Logan and other therapeutic
communities to try to help all kinds of patients, regardless of their
particular problems, it would have been encouraging to discover
that actual treatment outcome of patients was not systematically
related to any of the demographic variables studied (although
negative findings are always difficult to interpret). The fact that
significant relationships were found, though, does not speak to
the problem of whether this kind of treatment program does indeed
do more for certain patients than would other kinds of treatment
programs. The fact that married patients, for example, do well at
Fort Logan does not exclude the possibility that they might do as
well, or better, elsewhere. This kind of comparative research
still needs to be done.

SUMMARY

This research project was conducted at the Fort Logan
Mental Health Center in an attempt to discover whether or not there
are any demographic variables from which the actual treatment
outcome of a patient involved in a therapeutic community treatment
program can be predicted. The patient group used (N=234) was

composed of all first admissions to the Psychiatric Division of Fort Logan who were discharged by April 30, 1963, with the exception of patients who stayed less than two weeks, patients with organic brain syndromes or mental deficiency diagnoses, patients who were transferred to other hospitals because of complicating physical disorders, and patients who committed suicide. The independent variables were sex, age, education, marital status, provisional diagnosis, and number of days in the hospital. The dependent variables were rated response to treatment in terms of improvement at the time of discharge and percentage of admitted patients who were discharged. The results showed that actual treatment outcome was significantly related to diagnosis, age, marital status (for married and single patients *only*), and number of days in the hospital.

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CLINICAL NOTE

THE MEDICAL LIBRARY AND PATIENT HELP

BERNICE STONE, M.A.,* *Medical Librarian*
Fort Logan Mental Health Center, Denver, Colorado

In a community-psychiatry program, attempts are made to involve patients responsibly in many aspects of community life. In the hope that it will be helpful to other nonprofessionals who are considering involving patients in their work, this note will describe my experiences with three patient assistants and my personal reactions to them.

Dorothy was the first of three patient assistants we attempted to involve meaningfully and responsibly in the operation of the Fort Logan Medical Library. At the time she began her library assignment, Dorothy was convinced that she would never be able to resume her former profession, teaching, or to attempt any other professional work. In the beginning she was slow and confused by the detailed work of the library, but she learned quickly.

Dorothy's background was similar to my own. We had both been widowed some years ago, victims of the war years. Each of us had been left with a young son, and through the years to their maturity we had experienced similar problems in raising sons alone. Associated with this, we shared the "left out" feelings that widows often have. From the beginning of our association, Dorothy accepted me as a supervisor, a coworker, and a friend, and we have been able to sustain a relationship that I feel is sincere and good.

As time went on, Dorothy not only substantially alleviated the work load in the library, but also re-established her confidence in her ability to fit into the professional world once more. She is

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*Box 188, Fort Logan, Colorado.

now taking steps toward obtaining a job as a laboratory technician.

The second patient sent to me proved to be a much less fortunate choice. This young man was not interested in the work I gave him to do, and after reporting for work not more than four or five times, he fired himself. Later, in discussing Tom with the work therapist, I learned that he had a strong drive for failure and had, in essence, fired himself from each work therapy job he had accepted.

I received the third patient reluctantly, because she was assigned to the library during a period in which I did not have time to spare for instruction and supervision. From the first hour of her employment, Betty's steady flow of conversation in a rather loud voice was disconcerting. She insisted on telling me in great detail about other patients in her cottage. She also made constant attempts to manipulate me, other people, and the work situation. Her incessant chatter, her obsession with the depressing experiences of other patients around her, and her repeated efforts to manipulate everyone and everything to suit her needs made Betty an unsatisfactory source of help for the library.

It was soon apparent that Betty was gaining little, if any, help from her work assignment. Prior to her illness she had had clerical and stenographic experience, but at the time she came to me she was unable to perform such duties. Although she was very charming and eager to receive instruction, either she was not able to comprehend the instructions or refused to comprehend them. At any rate, she carried out her duties on her own terms, not as they should have been done. Finally, I requested Work Therapy to reassign her to a job more suited to her level of accomplishment, because I felt that she was not benefiting from work in the library.

Since work therapy is designed to help the patient progress toward a regular job, I have attempted to provide a realistic work situation for patients in the library. Library work involves many different jobs, all detailed and exacting. The time required for adequate instruction and supervision of untrained assistants often defeats the intended purpose of helping the operation of the library. However, instances of patient improvement provide rich rewards for the time expended, and patients who function well in the setting contribute substantially toward lightening the work load.

CORRESPONDENCE

To the Editor:

Having been the Director of a Day-Night Unit for the past several years and currently involved in planning for a new psychiatric institute, I would very much like to hear your opinion as to the effectiveness of day care in a day hospital setting as compared to its incorporation into a 24-hour unit.

Do you feel that the separate unit tends to offer anything unique for the training of psychiatric personnel which would be of value in their subsequent careers? I am not sure whether the Fort Logan Mental Health Center has an independent day or day-night unit, but I am aware that you place great emphasis upon day care. If this is the case, I would be interested in knowing the extent of time that the staff is involved with strictly day care as compared to 24-hour care patients on the same unit, and whether or not you feel the presence of 24-hour patients impedes or improves patient care and/or training.

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Ronald Levy, M.D.
Chief, Day-Night Hospital Unit
The Langley Porter Neuropsychiatric Institute
San Francisco, California

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Editor's Note: We asked Leonard F. Krause, Ph.D., Chairman of the Day Center at the Veterans Administration Hospital in Denver, and Sidney Glassman, Ph.D., of the Fort Logan staff, to reply to Dr. Levy's questions. They reply in the letters which follow.

The Denver V.A. Day Center is a treatment modality of the Mental Hygiene Clinic. While we are housed in a separate building on hospital grounds, we function for the most part independently of the hospital. The majority of our patients live in the community, although on occasion 24-hour patients participate in our program. Our major goal is one of resocialization. With our particular patient population, i.e., chronic psychotic with years of experience with all types of previous treatment, we feel that having a few inpatients in our group tends to stimulate the socialization process. We attempt to use hospital patients as a focus to encourage

group interaction and concern for others by encouraging visits, etc.

While there are numerous advantages and disadvantages to a day-care unit operating either within or outside of a 24-hour hospital, we feel that our arrangement is quite satisfactory. For example, physically we are located close enough to use the logistical support of the hospital as well as the medical consultation facilities and referral sources. The patients seem to feel secure knowing that the hospital is there to serve them. Further, while there is a great deal of ambivalence in the minds of our patients concerning hospitalization, in general there is the feeling that the Day Center represents some advancement beyond hospitalization, that the center is theirs and something that they don't have to share with other people, and that they are more independent. All of these feelings can be used in the development of group cohesiveness and feelings of personal worth on the part of the patient. These factors are extremely important in arriving at our goal of resocialization. While this response to the questions of Dr. Levy is extremely brief and doesn't cover all of the facets, it seems that by being relatively independent of a 24-hour hospital program, we are able to further develop the healthy aspects of the patient by supporting his attempts to function in society, even though in many cases this functioning is quite limited.

There is one other important aspect--a rather basic one--that should be considered. I feel that in the last analysis the merit of the day-care program rests in the therapeutic effectiveness of the staff. It is the ego support that they are able to lend, their enthusiasm, the relationships that they promote, and their ability to work harmoniously that actually facilitate the movement of the patient. Thus, I feel it is the staff, and not the program organization itself, that determines the effectiveness of any one day-center program.

<div style="text-align: right">

Leonard F. Krause, Ph.D.
Chairman, Denver Day Care Center
Veterans Administration Hospital
Denver, Colorado

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The Fort Logan Mental Health Center has its day hospital and 24-hour hospital integrated within geographically decentralized

teams. Each treatment team provides services in both of these modalities, as well as in several other transitional modalities (1). We feel that this arrangement has several significant advantages:

1. Continuity of care is insured by having the same staff persons relate with a given patient throughout the treatment process.

2. Flexibility of care is insured by the staff having at its own command the full gamut of treatment services.

3. The intermingling of day-hospital and 24-hour patients through the treatment day appears to provide incentives and benefits to both patient groups.

4. Greater stimulation and broader experience is gained by the staff by virtue of their not being specialists in single aspects of the treatment spectrum.

5. Record keeping is simplified, and the red tape of transfers is obviated.

6. Training is enriched because of the opportunity for a longer range view of treatment and the opportunity to follow up patients of particular interest.

The major disadvantages we have noticed in this integrated approach are:

1. The ease of transferring to 24-hour care provides a temptation for regression to some day-hospital patients.

2. The necessity of having both permanent day staff and rotating staff creates a potential for communication and morale problems.

We feel, however, that these disadvantages can be minimized through skillful handling and that integrated services provide the greatest benefit to patients, staff, and students (2).

Sidney M. Glassman, Ph.D.
Assistant Chief, Psychology Department
Fort Logan Mental Health Center

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NOTICE TO CONTRIBUTORS

The *Journal of the Fort Logan Mental Health Center* invites contributions in the areas of milieu therapy, social psychiatry, and related fields.

Manuscripts should be submitted in triplicate in the form in which the author wishes the paper to appear. Copy should be double-spaced, with margins of at least one and one-fourth inches.

References should be indicated by numbers in parentheses that refer to the list of references at the end of the article. The list should be alphabetical, and the names of the journals should not be abbreviated. The following format should be observed:

JAHODA, MARIE, Current Concepts of Positive Mental Health, New York, Basic Books, 1958.

RIESMAN, D., ''Some Observations on Interviewing in a State Mental Hospital,'' Bulletin of the Menninger Clinic, Vol. 23, pp. 7-19, 1959.

The author should include an address to which inquiries regarding the article should be sent, in the form of a footnote indicated by an asterisk on the first page of the article.

Manuscripts should be addressed to Paul Polak, M.D., Editor, Journal of the Fort Logan Mental Health Center, Box 188, Fort Logan, Colorado. Reprints will be furnished at the author's expense.