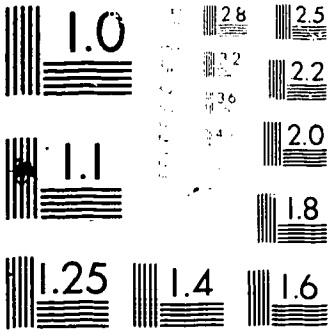
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ABSTRACT

An innovative program at the University of Washington Epilepsy Center which employes group social skills training procedures to ameliorate the psychosocial problems of chronic seizure-disorder patients is described. The rationale for the program is presented through a brief social learning analysis of the effects of long-standing periodic lack of control of one's behavior, (that is, having seizures). The procedures taught in the program's social skills classes, derived from clinical behavior therapy and established self-control and stress-management techniques, are described in detail. Also presented is a description of the development of three skills-training classes. A framework for evaluating the effects of the classes is included, as well as a discussion of several issues relevant to developing a skills training program within a medical setting. (Author)

SOCIAL SKILLS TRAINING IN EPILEPSY REHABILITATION*

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Behavioral assessment and intervention with chronic seizure disorder patients provides an exciting opportunity to integrate what is known about environmental control of behavior with what is known about behavior under the control of central nervous system dysfunction. I would like to speak about one behavioral approach that Henne Queisser, Dr. Hugh Armstrong and myself have undertaken at the Epilepsy Center--a group skills training program called the Skills Project. First, I would like to describe a few of the more common types of skill deficits we have seen in the population, then describe how our skills training classes were constructed, discuss a couple of classes in detail, and thenmention a few issues related to initiating this kind of program in a medical setting.

Perhaps the most salient behavioral characteristic of a person who is given to seizures is that the voluntary control of his behavior is periodically compromised. The individual experiences himself and is experienced by others as out of control. Even if this "out-of-control" behavior is fairly stereotyped, as is the case with most ictal episodes, the environmental consequences vary enormously and often quite unpredictably.

The person who has had frequent and highly visible seizures over a long period of time typically suffers from a chronic disability syndrome which is not necessarily specific to epilepsy. This patient carries with him/her a learning history characterized by the environment's responses to his/her "out-of-control" or disinhibited seizure behavior. This history often results in a rich repertoire of avoidance behaviors which are initially elicited unwittingly by parental concerns for their son or daughter's well-being, and inadvertently maintained by physicians prescriptions to "avoid stress". The development of such avoidance behaviors is further reinforced by peers who attribute their friend's unexplainable behavior to global traits

such as "craziness", "attention seeking", or "helplessness". The content of these attributions by others are often related to the patient's long-standing adaptation to perceiving oneself as unable to control important aspects of behavior. It is commonly accepted that repeated exposure to noxious events which are perceived as outside of voluntary control can lead to feelings of "hopelessness" and a failure to engage in the kind of prudent risk-taking which is necessary, especially in the absence of appropriate modeling, to learn to competently respond to a variety of problems in living. The skills required to effectively manage the environment's responses to his or her "out-of-control" behavior are even less likely to develop in this context. Notwithstanding continued attempts to define an "epileptic personality" in terms of global traits (e.g., Bear and Fedio, 1977), it is the learned avoidance responses and failure to gain access to situations for learning adaptive social, tension management, and problem-solving skills that we see as the factors most directly related to the psychosocial dysfunction in our chronic seizure-disorder patients. What is so exciting about this perspective is that it suggests a framework for intervention--that is, providing skill-enhancing learning experiences. It is likely that the particular cognitive, sensory perceptual and motoric deficits associated with the underlying CNS dysfunction, (Dikmen, Mathews, and Harley, 1975, 1977), a symptom of which is the seizure, provides some specificity to the skill deficits the patient displays, but these CNS factors are relevant to us primarily because they define the patient's limitations to participating in the learning experiences offered in the Skills Project.

Skills-training groups with chronic seizure-disorder patients is another example of applying established techniques to new populations. A

majority of the published reports on skills-training groups involve that most over-studied of species--the college student. Social anxiety (Rehm and Marston, 1968; Twentyman and McFall, 1975), deficient dating (Glass, Gottman and Shmurak, 1976) and test anxiety (Meichenbaum, 1972) are among the problems remediated in this group. Group training of normal undergraduate females in cognitive procedures for stress reduction can have an impact when subjects later confront an anxiety-arousing situation. (Stein and Girodo, 1977). Reports have also been published of skills-training groups with socially impaired psychiatric patients (Goldstein, 1973, Falloon, Lindley, McDonald and Marks, 1977) and migraine-headache patients (Mitchell and White, 1977). Excellent reviews are published (Curran, 1977; Heimberg, Montgomery, Madsen and Heimberg, 1977).

There are two published attempts to remediate the psychosocial problems of chronic seizure disorder patients in groups. Brullemann (1972) reported the use of a non-directive client-centered group for the treatment of chronic seizure-disorder patients, but supplied no data to evaluate outcome. Mayer and Gutjahr (1977) concluded from their pilot study on theme-centered interaction groups with epileptic patients that such groups could have a significant impact on the patients becoming successfully employed. The impact of the group on the seizure frequency of the participants was mixed with two of the patients demonstrating a significant reduction in their seizure rate and three patients not improving or becoming worse.

Parenthetically, there is a growing research literature on use of behavioral and self-control techniques for the reduction of seizures (see Mostofsky and Balaschak, 1977 for a review). They have been applied most

frequently and most successfully with children (Ince, 1976; Zlutnick, Mayville and Moffot, 1975) but reports of their application in adult seizure-disorder patients suggest great promise (Cabrol and Scott, 1976; Daniek, 1975; Parrino, 1971; Wells, Turner, Bellock and Hensen, 1978).

The primary modality of the Skills Project has been a set of 8 to 12 hour classes which have met in the early evenings and are taught by a clinical psychologist and others on the rehabilitation team. During the year that the Skills Project has been functioning, it has presented about 800 patient-hours of classes to 59 Epilepsy Center patients and 15 parents of patients. Patients of the Center who participate in the classes are notified either by announcements placed in the Outpatient Clinic or by Clinic Social Workers, Vocational Rehabilitation Counselors, or Physicians. Our only requirements for enrolling in a class are that the patient expresses a desire to change some aspect of his/her behavior and is not disruptive in the class. We suggest alternative interventions for patients with moderate to severe impairment in receptive language abilities and/or short-term memory, which has thus far been only 5% of the patients who requested to attend classes. To get an idea of how the patients who participate in our classes differ from those who do not, we compared two such groups from a sample of recent Center patients. Patients who participate, compared with those who do not, tend to be younger (mean age is 27 years), have more education, more likely to have never been married and to be currently unemployed, and have a higher incidence of past psychiatric treatment.

When we began the Skills Project, we were very fortunate to find that a majority of the Center's staff saw a clear need for some kind of intervention to help with the considerable problems in living this patient group in-

counters. Traditional psychiatric resources were not prepared to deal with the number of patients who exhibited significant problems and the patients themselves infrequently followed through with psychiatric referrals. The skills-training perspective allowed us to avoid the negative implications that many patients associate with traditional psychiatric interventions. By means of a structured interview with 36 of the Center patients who initially showed some interest in the classes, we were able to construct the classes on the problem areas the patients most frequently endorsed. Classes such as Memory Training, Stress Reduction, Overcoming Depression and Shyness, and Conversational Skills appeared most relevant to the problems our patients frequently endorsed. Assertiveness Training and Problem Solving classes required a little more explanation to the patients, but also appeared relevant to the problems they encountered.

For each class there is a set of target behaviors in the form of behavioral excesses and deficits. Lectures on basic information relevant to the target behaviors is presented, usually including an explanation of the basic principles of behavior change, i.e., pinpointing, reinforcement, etc. For each class there are procedures designed to allow each student to individually evaluate his or her own skills with respect to the target behaviors--these procedures include, for example, self-monitoring by means of a journal or surveys of anxiety-arousing social situations. Consistent with the principles suggested by D'Zurilla and Davison (1972), the assessment of competence is aimed at identifying specific troublesome situations, the patient's response to the situation, short and long-term consequences of such a response, and the salient and reliable antecedent cues which could serve to signal the occurrence of a troublesome situation. Most of the classes rely

heavily on either behavioral rehearsal or specific behavior change projects to elicit the appropriate behaviors within a context where they are likely to be reinforced. Finally, for each class there is a multilevel evaluation procedure. This consists of an attempt to document patient's level of participation in the class, whether or not the skills were cognitively acquired, whether competence in the target skills is displayed in class, the extent to which generalization occurs to situations outside class, and the degree to which the behavioral changes affected the quality of the patient's life or his/her seizure frequency.

These are the general principles we followed in designing our skills-training classes. Some of these principles have been easier to apply than others. Let me review in a little more detail three of the classes we have thus far presented in the Skills Project and present some of our preliminary data on the impact of these classes.

ASSERTIVENESS CLASS

The Assertiveness Class is aimed at developing appropriate alternative responses to a variety of troublesome social situations, situations in which the patient judges that his/her response is less than satisfactory. The class loosely follows the format of typical assertiveness training groups reported in the literature (Lomont, Gilner, Speztor, and Skinner, 1969; Galassi, Galassi, and Litz, 1974): patients first respond to a series of vignettes requiring an assertive response and are asked to rate the degree of difficulty they would expect to experience. An inventory of target situations is thereby generated for each student. We have noted that situations which required asking for help, particularly related to being incapacitated by a seizure, and situat-

ions requiring patients to inform others of their seizures, are most frequently endorsed as troublesome by our classes of adult epileptics. The patients in our first class displayed a wide range of assertiveness as measured by an established unidimensional measure of assertiveness; the mean of the eleven-member group on the Rathus Scale was -7.9, with a range of -36 to +15, and a standard deviation of 16.6.

Lectures and structured exercises were used to train the students to reliably discriminate between assertive, non-assertive, and aggressive responses. In one such exercise, students were given a series of fifteen situations based on Lange and Jakubowski (1976) which required some degree of assertiveness along with a sample response and asked to label the response as either assertive, aggressive, or uncertain. The class mean was 69% correct, the criterion for which is 90%-100% agreement between 20 expert judges. After simply reviewing and discussing the responses, seven of the eight patients improved their ability to accurately discriminate the response in another set of sample situations. Students are next trained to recognize the faulty or irrational beliefs which implicitly underlie unassertive and aggressive behavior, and then to actively challenge these beliefs through a set of structured exercises (Lazarus and Fay, 1975). Once patients understood what assertivenss was and had learned to identify some of their own unassertive beliefs, the basic skills for behaving assertively are explained and demonstrated. These skills include the recognition of annoyance and irritation, identifying and keeping to a single issue, using phrases like "I would like" and "I think...," using phrases which simultaneously communicate courteousness and seriousness, and bargaining skills. The remainder of the eight sessions is devoted to behavioral rehearsal of the troublesome situations identified by the patient either in the paper-

and-pencil survey or through homework assignments to "actively search and jot down opportunities to be more assertive."

Measures of student attendance and verbal participation in class suggest that this is one of the most popular classes with patients of the Epilepsy Center. On anonymous questionnaires, patients most frequently indicated that behavioral rehearsal was the most helpful aspect of the class.

MEMORY TRAINING CLASS

The concern most frequently voiced to me by the Center's adult epileptic patients is their increased forgetfulness. This is not surprising since it is perhaps the most typical deficit associated with brain-damaged patient groups. On our original Needs Assessment Questionnaire, administered to 36 adult epileptics interested in Skills Project classes, the patients as a group displayed a propensity to articulate a number of psychosicial difficulties in terms of "cognitive deficits" as opposed to "emotional/psychological deficits." For instance, these patients more frequently endorsed items such as "I lose track of what other people are saying to me when first introduced to them" than items such as "I am so afraid of failing that sometimes I avoid doing things I want to do." Another clinical psychologist and myself independently categorized all 45 questions in the survey as either reflecting emotional problems or reflecting cognitive deficits. We agreed that six of the questions reflected cognitive deficits and twenty-two of the questions reflected emotional problems. Two of the six cognitive questions (33%) were checked one standard deviation above the mean endorsement rate and none one standard deviation below; only four of the twenty-two emotional

questions (18%) were endorsed one standard deviation above the mean and eight were endorsed one standard deviation below the mean (36%). This is further indication that a cognitive skills-training approach, particularly as it relates to short-term memory and attention focusing, might be viewed as relevant by the Center's patients. Indeed, this class has been the one most frequently requested by name by the Center's patients.

The goal of the Memory Training Class is to decrease the incidence of forgetfulness and to improve the patient's basic organizational skills. It attempts to increase the frequency with which the patient anticipates situations in which he is unlikely to make a desired response and to organize his environment in order to increase the salience of naturally occurring environmental cues which would elicit the desired response.

The six week class is organized around three steps in remembering:

(1) Get It (Receiving the information)

(2) Link It (Increasing associations with familiar material) (See note 1)

(3) Hook It (Information retrievable)

Table 1 (the next slide) lists the techniques within each of these steps which are explained and practiced during class. Special emphasis is placed on covert verbal repetition, self-directed questions and answers to help direct and maintain attention to important aspects of the task at hand, the routine use of calendars, efficient note-taking, and planning and scheduling daily activities. Homework assignments include: planning daily activities for a week, recording incidents of forgetting, taking notes on the evening TV news, and meeting and remembering the names of two strangers (for example, telephone operators, bus drivers, etc.) without writing them down. The greatest difficulty in training individuals to

employ memory-enhancing cognitive techniques is teaching them to recognize the discriminative cues indicating when to employ a particular encoding or retrieval strategy. The techniques themselves are easily grasped by our patients who, when prompted, can quickly learn to adapt the technique to the situation at hand. For instance, students in the class were administered a practical memory test consisting of three subtests: (1) The first consisted of identifying the correct names associated with three specific photographed faces after examining ten name-face pairs for a period of one minute; (2) The second subtest consisted of recalling and naming ten common objects after a one minute exposure; (3) The third part involved supplying the missing word drom ten sentences which had previously been recited by the examiner. Five of the six students showed consistent improvement from pre-class to post-class testing on alternate forms of all three subtests, with improvement ranging from 10% to 23%. In addition, the students were given a post-class test in which they were supplied a series of specific situations and asked to: (1) identify a memory technique appropriate to a situation and (2) state specifically how they would adapt the technique to the particular situation. Each response was rated on a four-point scale of appropriateness of technique (2 points) and specificity of its application (2 points). Each student's score was the percentage corresponding to their attained number divided by the total number of possible points. The mean of the group (n = 5) was 68%, ranging from 40% to a 100%.

These data suggest that patients cognitively acquired the memory-enhancing skills and displayed some competence in performing the skills in analogue situations in class. However, pre- and post-comparisons of patients' estimates of the frequency of forgetting certain categories of common-

ly forgotten events (for example, appointments, medications, misplacing something, directions) indicate a trend toward increased forgetfulness by the end of the class. It is always a possibility that the patients became sensitized to their forgetfulness which resulted in greater estimates of forgetfulness in their post hoc self-reports, but this is an unsatisfactory result even if true. In any case, these data fail to suggest that the patients actually apply the memory techniques outside of class, and post-class estimates by patients of the frequency with which they actually employed each technique during the previous week are consistent with this interpretation. We are now testing some additional training procedures which are designed to heighten the salience of cues indicating a situation with a high risk of forgetfulness closer to the point in time when a memory enhancing technique can be applied with optimum effectiveness. These procedures include homework assignments to monitor and record in a diary each incidence of forgetfulness over the week. Later, as memory techniques are learned in class, homework assignments consist of seeking out several opportunities each day to apply the technique and self-administering certain predefined reinforcers contingent upon reaching a daily quota.

PROBLEM-SOLVING CLASS

The Problem-Solving Class has a slightly different format than many of the other classes. It is an ongoing group which meets twice a week for one hour and is composed of both outpatients and patients currently on the Center's Inpatient Unit.

As used by neurologists and neuropsychologists, problem-solving abilities

usually refer to abstract reasoning and the ability to make judgments in complex novel situations, abilities which are frequently compromised by mild to moderate cerebral dysfunction (Chapman and Wolff, 1959). Personal problem solving requires a variety of additional skills including the ability to inhibit immediate responses, even when the individual is experiencing distress, analytic abilities in judging certain behavior-consequence relationships and abstracting the relevant features from an ongoing set of events, as well as the ability to reflect upon, reify and categorize one's own behavior in terms of discreet responses to the problematic situation. Reaching a decision whether or not to return to school or how to handle a patronizing relative probably requires a broader range of skills than those measured by Halstead's Categories Test or by Porteus Mazes.

D'Zurilla and Goldfried (1971) have reviewed the empirical findings and Goldfried and Davison (1975) provide a lucid description of a technique for training in problem-solving skills. These sources, among others, (see note 2) provide the material on which our Problem Solving Class is based. Target behaviors for the class include increased frequency of decision-making and decision-related information gathering, and reduced frequency of impulsive or passive avoidance responses.

A majority of the class sessions utilize the five steps outlined by Goldfried and Davison (1975): (1) General Orientation which consists primarily of inhibiting immediate responses and preparing to engage in problem solving; (2) Problem Definition; (3) Generation of Alternatives or Brainstorming; (4) Decision Making; and finally, (5) Verification or testing the utility of the decision. A problem solving worksheet containing these five steps is used by each student in the Problem Solving Class. When a class member brings up a problem he/she wishes to solve, the problem solving process is initiated with

special emphasis on input from group members on steps two and three, that is, asking questions to elicit a complete behavioral description of the problem in terms of response-consequence relations and in brainstorming alternative courses of action. It usually comes as a surprise to a new class member that the class can generate such a large range of alternative courses of action and, with little encouragement, patients quickly get involved in offering creative, if not sometimes bizarre [illegible]tions.

For instance, one of the patients [illegible] to the Problem Solving Class after having encountered another person who had a major motor seizure on a street in downtown Seattle. Struck by the fact that she had rarely been in the situation of offering help to someone having a seizure, she requested the class try to solve her problem of what to do if she again encountered someone having a seizure. During the brainstorming stage, the students were able to generate not only a number of quite appropriate responses (for instance, remove sharp objects and encourage others to stay calm) but also were able to tap their own experiences to suggest a number of less appropriate, but nevertheless enlightening, alternatives. These suggestions included throwing water in his/her face, keeping one's distance so as not to "catch it", or putting a brick under the person's head for support.

Each of the five stages in the problem solving process requires a somewhat unique set of skills, the mastery of which is the goal of several exercises during class. For example, group administered Goal Attainment Scaling (Kiresuk and Sherman, 1968) allows individuals to practice describing their problems and provides incentives for the final stage of the problem solving process, the Verification stage. Listing short and long-term advantages and disadvantages for each alternative course of action aids in decision-making.

Listing individually and as a group all the possible usages of a common object provides practice in certain brainstorming skills. Role playing is often useful in generating and evaluating alternative responses to a person whose behavior is problematic for a student. When problems are particularly ill-defined, patients are sometimes instructed to keep detailed records on the problem over the week. The class instructor's job, besides introducing the class exercises, is to direct attention to the most common problems, suggest opportunities to problem-solve, review the purpose and ground rules for each stage in the process, divert discussion back to task when it wanders off, and generally attempt to model and reinforce skillful performance of the problem-solving exercise.

Patients have brought up a wide range of problems in the Problem Solving Class, including problems specific to seizure-disorder patients, such as responding to a relative or friend who is inappropriately protective, dealing with an acquaintance who suddenly withdraws after witnessing a seizure, responding when someone inappropriately calls an aid car after a seizure, or deciding whether or not to take medications. However, a majority of the problems are ones we all commonly encounter--how to increase the number of friends we have, how to handle a parent, whether to go back to school, change jobs, or move to another city, or how to reduce TV watching or lose weight.

We are currently developing means of evaluating our students' competance in executing the problem solving sequence we teach. Thus far, we have developed a written exercise which first describes a common problem, such as excessive TV-watching, asks the student to pretend he/she is currently encountering this problem in their lives, and then discriminate from a long

list of descriptive statements those which are required for a comprehensive description of the problem. Finally, the student is asked to generate a list of alternatives and choose what would be for him/her the most practical alternative with the highest likelihood of success. Our hypothesis is that the ability to list alternatives other than those ultimately chosen to put into action is directly related to increased frequency of decision-making and increased problem-related information gathering.

Other classes taught in the Skills Project include Relaxation and Stress Management in which relaxation, desensitization, and cognitive self-control techniques are taught in order to foster effective tension control in stressful situations. Our class entitled Shyness and Conversation Skills first allows the patients to pinpoint deficits in their own conversation skills such as introducing new topics, ending conversations, asking questions, and paraphrasing. Behavior rehearsal with the aid of videotape replay is then employed to increase patients' skills and desensitize them to the interpersonal risks involved in forming new friends. Dealing With Depression teaches the relationship between behavior and moods as well as techniques for establishing new habits which are likely to enhance the patient's mood. In Communication Skills class, patients first identify significant people in their lives with whom they would like to be more comfortable and communicate better. Behavioral rehearsal in a problem solving context then allows patients to learn new ways of approaching these individuals. A Job Maintenance Class, still in the planning stage, consists of newly employed patients who learn a variety of skills required for maintaining and enhancing their job. Parents of young adult patients of the Epilepsy Center participate in the Parents Class and learn basic principles of behavior change and practice negotiation skills with the aim of fostering more

adaptive independence in their daughters and sons. Both of these final two classes are undertaken in close collaboration with Dr. Robert Fraser and others on the Vocational Rehabilitation team.

There are, of course, some significant hurdles and problems to implementing an effective skills-training program within a medical setting. We've scraped our knees on a few of these. Perhaps the most troublesome problem we have encountered is the lack of transportation for patients. A vast majority of our patients do not drive and the bus service to Harborview Hospital, where classes are held, is less than ideal. Furthermore, in a sample of new patients to the Epilepsy Center we found that only 40% lived within one hour of the Center. In several of our classes, the median time spent per patient in transit was over one hour in each direction. This is a substantial investment, especially since for many of our patients time spent in the public eye is anxiety-arousing for fear of a publicly viewed seizure. To solve this problem, we are currently trying to organize local volunteer groups to help us with transportation and we are planning to hold our classes in more accessible places in the near future. If we can ease the transportation problem, we will certainly try to increase the amount of contact we have with the patients in the classes. It is clear that twelve hours of contact over a period of two months in a group is inadequate for changing many of the longstanding behaviors which are targets of our classes.

A related problem concerns fostering appropriate enrollment in the classes. We attempt during individual interviews to match the nature and severity of the patient's problems to the particular classes offered. We are as sensitive to the problems of providing a relatively weak intervention to a patient who might benefit from a more intensive intervention as we are to

the issue of encouraging the regular attendance of those who appear able to benefit from the classes. We frequently refer patients to the Life Skills Program of Harborview's Community Mental Health Center, which utilizes a similar but more intensive psychoeducational program.

Much of our effort has been directed at encouraging appropriate patients to participate in the classes. This population as a group shows a high propensity for avoidance behavior and frequently fail to recognize that many problems in living can be resolved without becoming seizure-free. Factors which we hypothesize are associated with a patient giving the Skills Project a try include: (1) a social worker or physician suggesting the Skills Project at the time the patient is actually experiencing some distress, (2) the patient adequately understanding that the classes are aimed to help them change their behavior and are neither a series of lectures nor a psychiatric intervention in which they will be viewed as ill or crazy, (3) the patient is relatively isolated, withdrawn or dependent upon only one or two other people for a majority of their social contact, and (4) a Goal Attainment Scaling form with two to three scales can be appropriately filled out within the first hour of the individual screening interview. Consistent attendance and compliance with homework assignments is fostered by our time-limited, goal-directed approach in which each student assesses and monitors his/her own progress in the class. Nevertheless, in the first six months, 18% of those who went through the screening interview failed to show for the first class and 40% of those who did show attended less than 80% of scheduled classes.

The final issue I would like to mention regards integrating a social skills training project into a medical setting. The survival of a social

skills training program in a medical setting depends upon the physicians in that setting viewing the program as aiding in patient's medical management. One way we have attempted to influence physicians' attitudes toward the program is to train our students to be more effective chronically ill patients. Being chronically ill requires certain skills not required during a time-limited acute illness. These skills include maintaining a working collaboration with the physician, minimizing the role of illness behavior in one's life, getting answers to questions about prescribed regimen, effective problem-solving between clinic follow-up appointments in order to reduce the impact of the crisis-contingent reinforcement schedule typical of outpatient clinics, and better organizational skills to maintain consistent and well-scheduled medication-taking. Most important to the medical management of seizure-disorder patients are accurate and reliable self-monitoring skills. This is crucial for the effective clinical trial of anticonvulsant medications. We are currently working on a project to assess the effects of semi-programmed self-monitoring training on the effectiveness of prescribed anticonvulsant medications. We are also planning in this project to assess the temporal relationship between certain classes of stressful events on the occurrence of seizures. There is no published controlled experimental study in humans relating seizure occurrence to stressful events, even though a belief in this association is commonly held among patients and their physicians.

This is what we are doing in the Skills Project at the University of Washington's Epilepsy Center. We are enormously encouraged by the results in selected cases and will continue to try to generate data that will guide us in making our skills training program an effective component in epilepsy rehabilitation.

REFERENCE NOTES

1. Adapted from Lorayne, H. and Lucas, J. The Memory Book. New York: Ballantine Books, 1974.

2. Format originally suggested by Giles Rainwater, Ph.D.

REFERENCES

Bear, D.M. and Fedio, P. Quantitative analysis of interictal behavior in temporal lobe epilepsy. Archives of Neurology, 1977, 34, 454-467.

Brulleman, L.H. Group therapy with epileptic patients at the Instituut voor Epilepsiebestryding. Epilepsia, 1972, 13, 225-231.

Cabrol, R.J. and Scott, D.F. Effects of two desensitization techniques, biofeedback and relaxation on intractable epilepsy: Follow-up study. Neurology, Neurosurgery & Psychiatry, 1976, 39, 504-507.

Chapman, L.F. and Wolff, H.G. The cerebral hemisphere and the highest integrative functions of man. A.M.A. Archives of Neurology, 1959, 1, 357-424.

Curran, J.P. Skills training as an approach to the treatment of heterosexual social anxiety: A review.

Daniels, L.K. The treatment of grand mal epilepsy by overt and operant conditioning techniques: A case study. Psychosomatics, 1975, 16, 65-67.

Dikmen, S., Mathews, C.G. and Harley, J.P. The effect of early versus late onset of major motor epilepsy upon cognitive-intellectual performance. Epilepsia, 1975, 16, 73-81.

Falloon, I.R.H., Lindley, P., McDonald, R. and Marks, I.M. Social skills training of outpatient groups. British Journal of Psychiatry, 1977, 131, 599-609.

Galassi, J.P., Galassi, M.D. and Litz, M.C. Assertive training in groups using video feedback. Journal of Counseling Psychology, 1974, 21, 390-394.

Glass, C.R., Gottman, J.M. and Shmurak, S.H. Response-acquisition and cognitive self-statement modification approaches to dating-skills training. Journal of Counseling Psychology, 1976, 23, 520-526.

Goldfried, M.R. and D'Zurilla, T.J. A behavioral-analytic model for assessing competence. In C.D. Spielberger (ed.) Current Topics in Clinical Psychology (Vol. 1). New York: Academic Press, 1969.

Goldstein, A.P. Structured learning therapy: Toward a psychotherapy for the poor. New York: Academic Press, 1973.

Heimberg, R.G., Montgomery, D., Madsen, C.H. and Heimberg, J.S. Assertion training: A review of the literature. Behavior Therapy, 1977, 8, 953-971.

Ince, L.P. The use of relaxation training and a conditioned stimulus in the elimination of epileptic seizures in a child: A case study. Journal of Behavior Therapy and Experimental Psychiatry, 1976, 7, 39-42.

Kiresuk, T.J. and Sherman, R.E. Goal attainment scaling: A general method for evaluating comprehensive community mental health programs. Community Mental Health Journal, 1968, 4, 443-453.

Lange, A.J. and Jakubowski, P. Responsible assertive behavior: Cognitive/behavioral proceudres for trainers. Research Press: Champaign, Illinois, 1976.

Lazarus, A. and Fay, A. I can if I want to. New York: William Morrow, 1975.

Lamont, J.F., Gilner, F.H., Spector, N.J. and Skinner, K.K. Group assertion training and group insight therapies. Psychological Reports, 1969, 25, 463-470.

Mayer, B. and Gutjahr, L. Pilot study on theme-centered interaction groups with epileptic patients. In J.K. Penry (ed.), Epilepsy, The Eighth International Symposium. New York: Raven Press, 1977.

Meichenbaum, D.H. Cognitive modification of test anxious college students. Journal of Consulting and Clinical Psychology, 1972, 39, 370-380.

Mitchell, K.R. and White, R.G. Behavioral self-management: An application to the problem of migraine headaches. Behavior Therapy, 1977, 8, 213-221.

Parrino, J.J. Reduction of seizures by desensitization. Journal of Behavior Therapy and Experimental Psychiatry, 1971, 2, 215-218.

Rehm, L.P. and Marston, A.R. Reduction of social anxiety through modification of self-reinforcement: An instigation therapy technique. Journal of Consulting and Clinical Psychology, 1968, 32, 565-574.

Stein, S.J. and Girodo, M. Three cognitive approaches to reducing stress. Paper read at Eighty-fifth Annual American Psychological Association, San Francisco, August, 1977.

Twentyman, C.T. and McFall, R.M. Behavioral training of social skills in shy males. Journal of Consulting and Clinical Psychology, 1975, 43, 384-395.

Wells, K.C., Turner, S.M., Bellack, A.S. and Hersen, M. Effects of cue-controlled relaxation on psychomotor seizures: An experimental analysis. Behavior Research and Therapy, 1978, 16, 51-53.

Zlutnick, S., Mayville, W.J. and Moffot, S. Modification of seizure disorders: The intervention of behavioral chains. Journal of Applied Behavior Analysis, 1975, 8, 1-12.

Dikmen, S., Mathews, C.G. and Harley, J.P. Effect of early versus late onset of major motor epilepsy on cognitive-intellectual performance: Further considerations. Epilepsia, 1977, 18, 31-36.

Mostofsky, D. and Balashak, B.I. Psychobiological control of seizures. Psychological Bulletin, 1977, 84, 723-750.